

Greeley City Council Agenda

Regular Meeting

Tuesday, October 5, 2021 at 6:00 p.m.

City Council Chambers at City Center South, 1001 11th Ave, Greeley, CO 80631

Zoom Webinar link: <https://greeleygov.zoom.us/j/98241485414>

NOTICE:

Regular meetings of the City Council are held on the 1st and 3rd Tuesdays of each month in the City Council Chambers. Meetings are conducted in a hybrid format, with a Zoom webinar in addition to the in person meeting in Council Chambers.

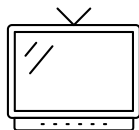
City Council members may participate in this meeting via electronic means pursuant to their adopted policies and protocol.

Members of the public are also invited to choose how to participate in Council meetings in the manner that works best for them.

Watch Meetings:



Meetings are open to the public and can be attended in person by anyone.



Meetings are televised live on GTV8 on cable television.



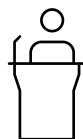
Meetings are livestreamed on the City's website, greeleygov.com as well as YouTube at youtube.com/CityofGreeley

For more information about this meeting or to request reasonable accommodations, contact the City Clerk's Office at 970-350-9740 or by email at cityclerk@greeleygov.com.

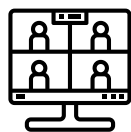
Meeting agendas, minutes, and archived videos are available on the City's meeting portal at greeley-co.municodemeetings.com/

Comment in real time:

During the public input portion of the meeting and public hearings:



In person attendees can address the Council in the Chambers.

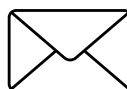


The public can join the Zoom webinar and comment from the remote meeting.

Submit written comments:



Email comments about any item on the agenda to cityclerk@greeleygov.com



Written comments can be mailed or dropped off at the City Clerk's Office at City Hall, at 1000 10th St, Greeley, CO 80631





Mayor

John Gates

Councilmembers

Tommy Butler
Ward I

Brett Payton
Ward II

Michael Fitzsimmons
Ward III

Dale Hall
Ward IV

Kristin Zasada
At-Large

Ed Clark
At-Large

A City Achieving Community Excellence

Greeley promotes a healthy, diverse economy and high quality of life responsive to all its residents and neighborhoods, thoughtfully managing its human and natural resources in a manner that creates and sustains a safe, unique, vibrant and rewarding community in which to live, work, and play.

City Council Agenda

October 05, 2021 at 6:00 PM

**City Council Chambers, City Center South, 1001 11th Ave &
via Zoom at <https://greeleygov.zoom.us/j/98241485414>**

1. Call to Order
2. Pledge of Allegiance
3. Roll Call
4. Approval of the Agenda
5. Recognitions and Proclamations
6. Citizen Input
7. Reports from Mayor and Councilmembers
8. Initiatives from Mayor and Councilmembers

Consent Agenda

The Consent Agenda is a meeting management tool to allow the City Council to handle several routine items with one action.

Council Members may request an item be pulled off the Consent Agenda and considered separately under the next agenda item in the order they were listed.

9. Acceptance of the Report of the City Council Work Session of September 14, 2021
10. Approval of the City Council Proceedings of September 21, 2021
11. Consideration of a Resolution approving the Second Amendment to an IGA for Treated Water Service with the town of Milliken
12. Introduction and first reading of an ordinance Adopting the 2021 Non-Potable Water Master Plan and Amending the 2018 Comprehensive Plan to include the same by reference

- [13.](#) Introduction and first reading of an ordinance changing the official zoning map of the City of Greeley, Colorado, from I-H (Industrial High Intensity), I-M (Industrial Medium Intensity) and C-D (Conservation District) to I-M (Industrial Medium Intensity for approximately 25.759 acres of property located at 300 E. 8th Street known as the City of Greeley Wastewater Treatment Facility Rezone

End of Consent Agenda

14. Pulled Consent Agenda Items
- [15.](#) University of Northern Colorado Update
- [16.](#) Introduction and first reading of an Ordinance adopting the budget for 2022
- [17.](#) Public hearing and final reading of an Ordinance ratifying and adopting the Collective Bargaining Agreement between the Greeley Fire Fighters Union, International Association of Fire Fighters Local 888 and the City of Greeley, which agreement by its terms is for a period commencing December January 1, 2022 through December 31, 2023
- [18.](#) Scheduling of Meetings, Other Events
- [19.](#) Consideration of a motion authorizing the City Attorney to prepare any required resolutions, agreements, and ordinances to reflect action taken by the City Council at this meeting and at any previous meetings, and authorizing the Mayor and City Clerk to sign all such resolutions, agreements and ordinances
20. Adjournment

Council Agenda Summary

Title

Recognitions and Proclamations

Summary

Council Member Zasada will present the *What's Great about Greeley* Report.

Mayor Gates will present a proclamation recognizing the Weld Project Connect Collaborative Partnership.

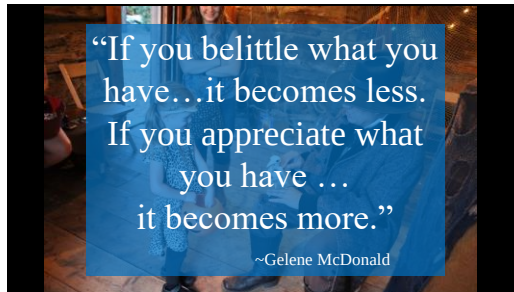
Attachments

What's Great about Greeley Report
Project Connect Proclamation

Slide 1



Slide 2



At each Council Meeting, we recognize the people, organizations and businesses that make Greeley Great.

Tonight it's my turn to announce the recognitions. I'll start with a quote, "If you belittle what you have, it becomes less. If you appreciate what you have, it becomes more." With these announcements we are appreciating the good work of our residents, showing support for their efforts, and encouraging everyone to share the word that Greeley is Great.

Slide 3



North Colorado Medical System in Greeley has been ranked #19 on the Lown Institute Hospitals Index 2021 list of *America's Most Socially Responsible Hospitals*. The social responsibility list ranks 3,010 hospitals and is based on 54 metrics across three main categories: equity, value and outcomes.

Slide 4



The Greeley Farmers' Market was voted 1st in Colorado and 7th in the Southwest as part of the 2021 America's Farmers Market Celebration by American Farmland Trust and the Farmers Market Coalition. The Celebration showcases the essential markets across the nation making a difference for farmers, ranchers, and communities.

Slide 5



A North Colorado Health Alliance (NCHA) project will receive renewed funding of \$2.5 million from the Substance Abuse and Mental Health Service Administration (SAMHSA) grant to further support the organization's work in opioid addiction treatment. the renewed grant will provide funding to Project Colorado Opioid Synergy-Larimer and Weld (CO-SLAW) for the next five years. With the funding from the grant, the NCHA will hire a team of care managers and peer recovery coaches to support those with opioid addiction regardless of a person's payer source throughout northern Colorado.

Slide 6



The Greeley Downtown Development Authority has received a Revitalizing Main Streets grant award of \$96,830 from the Colorado Department of Transportation for a wayfinding project. The project will add seven directional signs helping people get in and around the downtown Greeley area as well as 29 bike wayfinding signs directing recreationists to the Poudre Trail.

Slide 7



And that's What's Great about Greeley.



Weld Project Connect Collaborative Partnership

Neighbors Helping Neighbors

One Day, One Place, One Person at a Time

WHEREAS, the Greeley City Council, recognizes that there are residents and families in Greeley and Weld County who are in need of assistance; and

WHEREAS, the Council understands that the problems causing distress in these households include issues such as health and medical concerns, housing instability, and other situations that cannot be solved by local government, but could be remedied or at least mitigated with collaborative assistance among governments, non-profits and the business community; and

WHEREAS, in 2010, the City of Greeley, as a collaborative partner, began meeting with United Way of Weld County and Weld County government, to begin planning the first Weld Project Connect to give residents in need a hand up on one day, in one place, one person at a time; and

WHEREAS, for each of the events held to-date, over 600 Greeley and Weld County residents were mobilized to help an average of over 1000 people annually navigate the services available at Weld Project Connect; and

WHEREAS, numerous sponsors, government agencies, non-profits and service providers collaborate providing monetary support, transportation, event facilities, in-kind contributions, volunteers and direct services to those who attend the event.

NOW, THEREFORE, I, John D. Gates, by virtue of the authority vested in me as the Mayor of the City of Greeley, Colorado, do hereby proclaim **Weld Project Connect** a success and support the ongoing planning and resources pledged by the City of Greeley and others for the next **Weld Project Connect** event scheduled for October 15, 2021.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the official seal of the City of Greeley, this 5th day of October, 2021.

John D. Gates
Mayor

Council Agenda Summary

Title

Citizen Input

Summary

During this 15 minute portion of the meeting, anyone may address the Council on any item of City Business appropriate for Council consideration that is not already listed as a public hearing on this evening's agenda.

As this meeting is being conducted in a hybrid format, citizen input will be accepted first from those in the City Council Chambers, and then from the virtual meeting audience via the meeting's webinar.

Written comments submitted for any item on the agenda will be placed in the public record and provided to the Council for their review and should include the name and city of residence of the person submitting the comments for the record.

Council Agenda Summary

Title

Reports from Mayor and Councilmembers

Summary

During this portion of the meeting any Councilmember may offer announcements or reports on recent events and happenings. These reports should be a summary of the Councilmember's attendance at assigned board/commission meetings and should include key highlights and points that may require additional decision and discussion by the full Council at a future time.

Council Agenda Summary

Title

Initiatives from Mayor and Councilmembers

Summary

During this portion of the meeting any Councilmember may bring before the Council any business that the member feels should be deliberated upon by the Council. These matters need not be specifically listed on the Agenda, but formal action on such matters shall be deferred until a subsequent Council meeting.

Initiatives will generally fall into three categories:

- 1) A policy item for Council deliberation and direction for a future Worksession, Committee meeting, or regular/special Council meeting;
- 2) A request to the City Manager for information or research;
- 3) A request involving administrative processes or procedures.

At the close of this portion of the meeting, the Mayor will confirm Council's consensus that the individual requests be pursued.

Attachments

Status Report of Council Initiatives and Related Information

Greeley City Council

Status Report of Council Initiatives

Initiative No.	Council Member Initiating	Council Request	Council Meeting or Work Session Date Requested	Status or Disposition (After completion, item is shown one time as completed and then removed.)	Assigned to:
03-2021	Hall	Request for formation of a committee, to be chaired by Council Member Hall, regarding the section of the Poudre River Trail known as the Narrows. This section is facing increasing risks of erosion, with some portions in danger of falling into the river, and no available alternative areas for trail placement in that vicinity. The School of Mines will do a project to work on some engineering solutions for the area, in addition to other engineering studies that have already been done. The committee will review and determine options to move forward in addressing this with the assistance of City staff. City Manager Otto added information about potential Capital Improvement Projects through this area, and Council Member Hall provided information about existing potential rough cost estimates.	February 2, 2021 Council Meeting	Update: 04/20/2021 Council Member Hall reported the committee had its first meeting and he is pleased with engagement from City staff and the community. A committee, chaired by Council Member and Poudre River Trail Corridor Chairman Hall, has been formed with representatives from the Poudre Trail Corridor Board, Culture, Parks and Recreation/Natural Areas and Trails, Public Works, Water and Sewer, the Poudre River Run Master HOA, a member of the Parks and Recreation Advisory Board, and a representative from the Ditch #3 Board. Committee Chairman Hall has also referenced initial communications with Otak Engineering, a consulting firm who produced a study of this area in 2018 for the City of Greeley, as well as the Colorado School of Mines engineering students who will conduct a capstone project this semester towards a suggested course of action and suggested funding mechanism(s). An initial assessment with design parameters, recommended	Andy McRoberts

Initiative No.	Council Member Initiating	Council Request	Council Meeting or Work Session Date Requested	Status or Disposition (After completion, item is shown one time as completed and then removed.)	Assigned to:
				course(s) of action including recommended funding sources, is expected in June, 2021 post consultation with the Mines student project and engineering consultants. Although this project will carry on in practicality through committee work	
10-2021	Butler	Request to restart the conversation about recycling, and for staff to research the cost and feasibility of doing a drop off facility for recycling, including potentially in partnership with other communities	July 20, 2021 Council Meeting	Scheduled to return for a presentation at the October 12, 2021, Work Session	Paul Trombino
11-2021	Clark	Request for a report on the status of resolving issues with the City's ERP implementation.	September 7, 2021 Council Meeting	City Manager's Office will have a work session on the subject matter on Oct. 26, 2021.	Raymond Lee
12-2021	Butler	Request that staff prepare a resolution for the Council's consideration urging a no vote on ballot questions 2G and 2H to amend the City Charter prior to ballots being mailed out	September 21, 2021 Council Meeting	Staff is preparing a resolution to come before Council at the Oct. 19, 2021 Council Meeting	Doug Marek
13-2021	Payton	Request for information to return to a work session regarding impact and process for any changes to the criteria for providing bonus payments to front line workers	September 21, 2021 Council Meeting	City Manager's Office will have a work session on the subject matter on Oct. 12, 2021.	Raymond Lee

Council Agenda Summary

Key Staff Contact: Anissa Hollingshead, City Clerk, 970-350-9742

Title:

Acceptance of the Report of the City Council Work Session of September 14, 2021

Summary:

A City Council Work Session was held in the City Council's Chambers on September 14, 2021. The draft report of that work session has been prepared for the Council's review and acceptance.

Decision Options:

1. To accept the Report as presented; or
2. Amend the Report if amendments or corrections are needed, and accept as amended.

Council's Recommended Action:

A motion to accept the Report as presented.

Attachments:

Draft Report of September 14, 2021

City of Greeley, Colorado
CITY COUNCIL WORK SESSION REPORT
September 14, 2021

1. Call to Order

Mayor John Gates called the meeting to order at 6:00 p.m. in the City Council Chambers at 1001 11th Ave, Greeley, Colorado.

2. Pledge of Allegiance

Mayor Gates led the Pledge of Allegiance to the American Flag.

3. Roll Call

Anissa Hollingshead, City Clerk, called the roll.

PRESENT

Mayor John Gates
Council Member Tommy Butler
Council Member Dale Hall
Council Member Michael Fitzsimmons
Council Member Brett Payton
Council Member Ed Clark
Council Member Kristin Zasada

4. Reports from Mayor and Council Members

Council Member Hall reported on the tour he and Council Member Butler attended last Friday with the Water & Sewer Board to view fire damage and its impacts on water distribution in the region.

5. Scheduling of Meetings, Other Events

Interim City Manager Raymond Lee indicated there were no additional meetings or other events.

6. COVID-19 Update

Emergency Manager Dan Frazen presented an update on COVID-19 to the Council. He reported on the metrics being tracked by the City. Emergency Manager Frazen noted of the three primary triggers the City is monitoring that for first three days of September the community trigger was met; today the City employee trigger was met; and at this time, the City has yet to meet all three triggers at one time.

Emergency Manager Frazen next reviewed some broader current community context.

- Due to capacity and equipment issues at facilities, the local hospitals are working closely together to transfer patients between them to assure the best ability to provide care.
- 56.4% of county residents are fully vaccinated, and another 6% have received one shot.
- A mobile vaccination site will be at Northridge High School on September 16, and at City Hall next week. These opportunities are for everyone in the community.
- The community testing site at UNC has been very busy, and CDPHE has requested the city's assistance in identifying another site. The current site is the only one in Weld County right now.
- There were 2 deaths due to COVID in the city in August, and 2 so far in September.
- There have been 20 recorded cases of the newer Lambda variant in Colorado to this point.

In response to a question, Emergency Manager Frazen indicated we cannot get Greeley-specific data on vaccination rates.

In response to a question about potential responses if all three triggers are met, City Manager Lee indicated he would not immediately look at a full shut down, but instead would look at instituting a mask mandate and possibly considering instituting work cohorts to minimize staffing at one time but still fully cover staffing.

7. 2022 Proposed Budget Presentation

City Manager Raymond Lee led the presentation. He was joined by Budget Director Robert Miller in the chambers, and Finance Director John Karner participating remotely. They presented as set forth in the PowerPoint in the agenda packet.

Questions from the Council included regarding the growth of top level positions. Interim City Manager Raymond Lee responded with information about the growth of the city and the necessity of better equipping the organization to respond appropriately to the needs of the community.

Mayor Gates offered his thanks to all staff who worked to prepare this budget.

There was a question from the Council about whether there would be an opportunity for the Council to have a discussion amongst themselves about the parameters of the budget. Director Karner noted the majority of new positions have come about as a result of departmental assessments. Manager Lee also provided more input on how a city manager will typically go about setting up their executive team in order to accomplish Council's priorities for the community and organization.

Mayor Gates offered his appreciation to Jerry Harvey in his final meeting, and wished him success in his next endeavors.

8. Adjournment

There being no further business before the Council, the meeting was adjourned at 6:37 p.m.

John D. Gates, Mayor

Anissa N. Hollingshead, City Clerk

Council Agenda Summary

Key Staff Contact: Anissa Hollingshead, City Clerk, 970-350-9742

Title:

Approval of the City Council Proceedings of September 21, 2021

Summary:

A meeting of the City Council was held in the City Council's Chambers on September 21, 2021. The draft proceedings have been prepared and are being presented for the Council's review and approval.

Decision Options:

1. To approve the proceedings as presented; or
2. Amend the proceedings if amendments or corrections are needed, and approve as amended.

Council's Recommended Action:

A motion to approve the City Council proceedings as presented.

Attachments:

Draft Proceedings of September 21, 2021

City of Greeley, Colorado
CITY COUNCIL PROCEEDINGS
September 21, 2021

1. Call to Order

Mayor John Gates called the meeting to order at 6:00 p.m. in the City Council Chambers at 1001 11th Ave, Greeley, Colorado, with hybrid participation available via the City's Zoom platform.

2. Pledge of Allegiance

Mayor Gates led the Pledge of Allegiance to the American Flag.

3. Roll Call

Anissa Hollingshead, City Clerk, called the roll.

PRESENT

Mayor John Gates
Council Member Tommy Butler
Council Member Brett Payton
Council Member Dale Hall
Council Member Michael Fitzsimmons
Council Member Ed Clark
Council Member Kristin Zasada

4. Approval of the Agenda

The agenda was approved as presented.

5. Recognitions and Proclamations

Mayor Gates read a proclamation declaring September 15, 2021 through October 15, 2021 as Hispanic Heritage Month.

Mayor Gates then presented a proclamation declaring September as Suicide Prevention Awareness Month. Representatives from north Range Behavioral Health were present to receive the proclamation and offered remarks.

Council Member Hall presented the *What's Great About Greeley* report.

6. Citizen Input

No written comments were received and there was no one in the virtual meeting audience requesting to be heard.

7. Reports from Mayor and Councilmembers

Mayor Gates noted he attended the State of University address recently. He also attended the Dream Team breakfast, and the recent community prayer breakfast. He also noted the State Colorado Municipal League (CML) conference was getting underway this evening.

8. Initiatives from Mayor and Councilmembers

Council Member Butler asked that staff prepare a resolution for the Council's consideration urging a no vote on ballot questions 2G and 2H to amend the City Charter prior to ballots being mailed out.

Consensus was obtained to move forward with this initiative.

Consent Agenda

Council Member Butler moved, seconded by Council Member Hall, to approve the recommended actions on items 9-12.

The motion carried 7-0 by roll call vote.

9. Approval of the City Council Proceedings of September 7, 2021

The action recommended and approved was to approve the proceedings of September 7, 2021, as presented.

10. Consideration of a Resolution approving an Intergovernmental Agreement with the Town of Windsor for the purposes of joint acquisition, ownership and management of open space lands

The action recommended and adopted was to adopt the resolution.

Resolution 33, 2021 was adopted approving an IGA with the Town of Windsor.

11. Consideration of a Resolution authorizing the City Attorney to initiate appropriate legal action against the Taylor & Gill Ditch Company and William O. Seaworth for damages

The action recommended and adopted was to adopt the resolution.

Resolution 34, 2021 was adopted authorizing the initiation of appropriate legal action against Taylor & Gill Ditch Company and William O. Seaworth for damages.

12. Introduction of an Ordinance ratifying and adopting the Collective Bargaining Agreement between the Greeley Fire Fighters Union, International Association of Fire Fighters Local 888 and the City of Greeley, which agreement by its terms is for a period commencing December January 1, 2022 through December 31, 2023

The action recommended and approved was to approve the introduction of the ordinance and scheduling of the second reading and a public hearing for October 5, 2021.

End of Consent Agenda

13. Pulled Consent Agenda Items

None.

14. Final reading of three amended ordinances amending Title 24 of the Greeley Municipal Code by deleting the current Title in its entirety and adding a new Chapter 1 - General Provisions, a new Chapter 2 – Procedures, a new Chapter 3 – Subdivision Standards, a new Chapter 4 – Zoning Districts and Uses, a new Chapter 5 – Residential Development Standards, a new Chapter 6 – Nonresidential Development Standards, a new Chapter 7 – Access and Parking, a new Chapter 8 – Landscaping Standards, a new Chapter 9 – Sign Standards, a new Chapter 10 – Special Districts and Areas, a new Chapter 11 – Supplemental Standards, a new Chapter 12 – Reserved – Metropolitan Districts, and a new Chapter 13 – Definitions and Terms

Carol Kuhn, Chief Planner, came forward to present as set forth in the PowerPoint in the agenda packet.

Council Member Fitzsimmons moved, seconded by Council Member Zasada, to adopt the amended ordinance for Chapters 1 and 2 and publish with reference to title only. The motion carried 7-0 by roll call vote.

Council Member Fitzsimmons moved, seconded by Council Member Zasada, to adopt the amended ordinance for Chapters 7-12 and publish with reference to title only. The motion carried 7-0 by roll call vote.

Council Member Fitzsimmons moved, seconded by Council Member Zasada, to adopt the amended ordinance for Chapters 3-6 and 13 and publish with reference to title only. The motion carried 7-0 by roll call vote.

Ordinance No. 34, 2021, amending Title 24 of the Greeley Municipal Code by adding a new Chapter 1 and Chapter 2, was adopted.

Ordinance No. 35, 2021, amending Title 24 of the Greeley Municipal Code by adding new Chapters 7-12, was adopted.

Ordinance No. 36, 2021, amending Title 24 of the Greeley Municipal Code by adding new Chapters 3-6 and Chapter 13, was adopted.

15. Public hearing and final reading of an ordinance appropriating additional sums to defray the expenses and liabilities of the City of Greeley for the balance of the fiscal year of 2021 and for funds held in reserve for encumbrances at December 31, 2020

John Karner, Finance Director, came forward to present as set forth in PowerPoint in the agenda packet.

Mayor Gates opened the public hearing at 6:25 p.m.

Edwin Wingrad came forward to comment regarding identity theft.

There being no one else wishing to speak, the public hearing was closed at 6:29 p.m.

Council Member Clark asked about the costs associated with expanding the eligibility pool for receiving a 2% bonus for employees who worked in higher risk roles unable to work remotely during the pandemic. Director Karner provided information about the analysis and calculations performed by City staff based on the proposed methodology and criteria outlined on this topic. Interim City Manager Raymond Lee also spoke about the federal intent for this dollar amount to focus on front line staff, as well as its purpose in promoting retention.

At the request of the mayor, City Attorney Doug Marek advised the issue before the Council at this meeting is regarding approving the appropriation ordinance, and noted clarifying the criteria is not part of the appropriation.

Council Member Payton asked for data to come back in an upcoming work session on potential additional appropriations required if the methodology for awarding bonuses is amended.

Council Member Payton moved, seconded by Council Member Butler, to adopt the ordinance and publish with reference to title only.
The motion carried 7-0 by roll call vote.

Ordinance No. 37, 2021, appropriating additional sums to defray the expenses and liabilities for the balance of the fiscal year of 2021 and for funds held in reserve for encumbrances at December 31, 2020, was adopted.

16. Appointment of applicants to the Construction Trades Advisory & Appeals Board and the Housing Authority

City Clerk Anissa Hollingshead reported the following appointments were made by the Council by written ballot:

- Construction Trades Advisory & Appeals Board – Thomas Roche and Stephen Schaps.
- Housing Authority - directed staff to recruit for additional applicants.

17. Appointment to Greeley/Weld Housing Authority

Council Member Payton moved, seconded by Council Member Butler, to reappoint Havilah Lilly to the Greeley-Weld Housing Authority.
The motion carried 7-0.

18. Scheduling of Meetings, Other Events

Mayor Gates noted the recommendation of the City Manager to cancel an upcoming regular meeting and a work session.

Council Member Hall moved, seconded by Council Member Zasada, to cancel the September 28, 2021 Work Session and the November 2, 2021 Regular Meeting of the City Council.

The motion carried 7-0.

19. Consideration of a motion authorizing the City Attorney to prepare any required resolutions, agreements, and ordinances to reflect action taken by the City Council at this meeting and at any previous meetings, and authorizing the Mayor and City Clerk to sign all such resolutions, agreements and ordinances

Council Member Butler moved, seconded by Council Member Hall, to approve the above authorizations.

The motion carried 7-0.

20. Adjournment

There being no further business before the Council, Mayor Gates adjourned the meeting at 6:45 p.m.

John D. Gates, Mayor

Anissa N. Hollingshead, City Clerk

Council Agenda Summary

October 5, 2021

Key Staff Contact: Sean Chambers, Water & Sewer Director, 970-350-9815

Title:

Consideration of a Resolution approving the Second Amendment to an IGA for Treated Water Service with the town of Milliken

Summary:

The proposed Second Amendment to the IGA will provide for two basic revisions to the 2017 First Amendment. The first area of agreement revision addresses the types of raw water sources allowable for transfer to Greeley to meet supply requirements. The 2017 IGA obligates and limits Milliken to provide Greeley with C-BT exclusively.

The Second Amendment would permit Milliken to use GLIC supplies, with appropriate legal rights of use, to be treated at Greeley's Boyd Lake WTP when the seasonal facility is operating. Greeley maintains exclusive control and sole discretion over operations and operating season. The second area of revision to the IGA will provide the parties with greater certainty with respect to peak daily and peak hourly demand factors. This is accomplished by establishing Milliken's peaking factors based upon Greeley's residential peaking, and thereby providing both parties with reliability in the cost of service rate model output.

The Greeley Water & Sewer Board took formal action to support the Second Amendment to the IGA and recomd the same to City Council.

Fiscal Impact:

Does this item create a fiscal impact on the City of Greeley?	Yes
If yes, what is the initial, or, onetime impact?	N/A
What is the annual impact?	Approximately \$80,000 less revenue received from Milliken
What fund of the City will provide Funding?	Water Operating
What is the source of revenue within the fund?	Water Rates
Is there grant funding for this item?	No
If yes, does this grant require a match?	
Is this grant onetime or ongoing?	
Additional Comments:	Milliken's peaking has been highly variable, and that has caused great variability in their vollumentric rates. When their peaking has gone down in the past, it shifts cost back to Greeley or other parties, and everyone will benefit from the proposed method that will create greater consistence for all parties.

Legal Issues:

N/A

Other Issues and Considerations:

Strategic Work Program Item or Applicable Council Priority and Goal:

Infrastructure & Growth: Establish the capital and human infrastructure to support and maintain a safe, competitive, appealing and successful community.

Decision Options:

- 1) Adopt the resolution as presented; or
- 2) Amend the resolution and adopt as amended; or
- 3) Deny the resolution; or
- 4) Continue consideration of the resolution to a date certain.

Council's Recommended Action:

A motion to adopt the Resolution.

Attachments:

Draft Resolution

Proposed 2nd Amendment to Milliken Water Service IGA

Milliken Water Service IGA (First Amendment)

Presentation

**THE CITY OF GREELEY, COLORADO
RESOLUTION __, 2021**

**A RESOLUTION AUTHORIZING ENTRY INTO THE SECOND AMENDMENT TO INTERGOVERNMENTAL
AGREEMENT FOR TREATED WATER SERVICE BETWEEN THE CITY OF GREELEY, COLORADO AND THE
TOWN OF MILLIKEN, COLORADO**

WHEREAS, the City of Greeley ("Greeley") is authorized by Section 3-5 of the Greeley City Charter and Section 2-461 of the Greeley Municipal Code to enter into contracts with other governmental entities for the performance of cooperative or joint activities; and

WHEREAS, Greeley and the Town of Milliken ("Milliken") entered into that certain intergovernmental agreement dated July 20, 1999, which was amended by that certain First Amendment to Intergovernmental Agreement for Treated Water Service dated May 16, 2017 ("Milliken Outside Service IGA") and set the terms and conditions by which Greeley uses its supply and treatment facilities to provide the treatment and delivery of potable water to Milliken; and

WHEREAS, Greeley and Milliken have a continuing common interest in obtaining high-quality treated water in sufficient quantities to meet the present and future needs of their citizens and service areas, and have reached an understanding regarding the further amendment of the Milliken Outside Service IGA, in the form of the agreement attached hereto and incorporated herein as Exhibit A ("Second Amendment to Intergovernmental Agreement for Treated Water Service"); and

WHEREAS, the Greeley Water and Sewer Board approved the Second Amendment to Intergovernmental Agreement for Treated Water Service at its September 15, 2021 meeting, and recommended that the City Council approve the same; and

WHEREAS, it is in the best interest of the citizens of the City of Greeley for the City to enter into the Second Amendment to Intergovernmental Agreement for Treated Water Service.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GREELEY, COLORADO:

Section 1. The City of Greeley, Colorado is hereby authorized to enter into the Second Amendment to Intergovernmental Agreement for Treated Water Service with the Town of Milliken, in the form attached hereto and incorporated herein as Exhibit A.

Section 2. City staff and legal counsel are hereby authorized to make minor revisions to the Second Amendment to Intergovernmental Agreement for Treated Water Service with the Town of Milliken, provided that the material substance of the agreement remains unchanged.

Section 3. This resolution shall take effect immediately upon its passage.

PASSED AND ADOPTED, SIGNED AND APPROVED THIS _____ DAY OF _____ 2021.

ATTEST:

THE CITY OF GREELEY, COLORADO

City Clerk

Mayor

SECOND AMENDMENT TO
INTERGOVERNMENTAL AGREEMENT FOR
TREATED WATER SERVICE

BETWEEN THE CITY OF GREELEY, COLORADO
AND THE TOWN OF MILLIKEN, COLORADO

This SECOND AMENDMENT TO INTERGOVERNMENTAL AGREEMENT FOR TREATED WATER SERVICE (“Agreement”) is entered into this ____ day of _____ 2021, by and between THE CITY OF GREELEY, COLORADO, a home rule municipality acting by and through its Water Enterprise (“Greeley”) and THE TOWN OF MILLIKEN, COLORADO, a home rule municipality (“Milliken”), to set forth the terms and conditions by which Greeley will use its supply and treatment facilities to provide the treatment and delivery of potable water to Milliken.

WHEREAS, pursuant to C.R.S. § 29-1-203, governments may cooperate or contract with one another to provide any function, service or facility lawfully authorized to each of the following cooperating units of government; and

WHEREAS, Greeley and Milliken previously entered into that certain Intergovernmental Agreement for Treated Water Service on July 20, 1999 (“1999 IGA”), and into that First Amendment to the Intergovernmental Agreement for Treated Water Service on May 16, 2017 (“First Amendment”); and

WHEREAS, Greeley and Milliken have a continuing common interest in obtaining high-quality treated water in sufficient quantities to meet the present and future needs of their citizens and service areas; and

WHEREAS, Greeley and Milliken desire to further amend the 1999 IGA, as previously amended by the First Amendment, to modify the methodology by which Milliken’s peak daily and peak hourly demand factors are to be calculated; and

WHEREAS, Greeley and Milliken desire to reduce their understandings, and the terms and conditions of this Agreement, to writing;

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which is acknowledged, and in further consideration of the mutual covenants, undertakings, terms, and conditions contained herein, Greeley and Milliken agree as follows:

1. **DEFINITIONS.** The terms used herein are defined as follows:

1.1 “Greeley” shall refer to the City of Greeley and any authorized representative thereof.

1.2 “Greeley Water System” or “Greeley Water System Enterprise” shall refer to Greeley’s water treatment plants, treated water conveyance and storage systems, pump stations and related appurtenances for the collection, distribution, and measurement of water.

1.3 “Milliken” shall refer to the Town of Milliken and any authorized representative thereof.

1.4 “Milliken System” or “Milliken Water System Enterprise” shall refer to Milliken’s treated water conveyance and storage systems, pump stations, and related appurtenances for the distribution of water downstream of master meters gauging Greeley’s delivery to Milliken.

2. USE. Pursuant to the terms of this Agreement, Greeley agrees to treat water, usable in the Greeley Water System and approved for municipal use in the Milliken System under Colorado law, for Milliken in the manner and in such amounts as are more fully set forth herein.

2.1 During each full year that this Agreement is in effect, Milliken shall take a minimum of 20 million gallons of treated water. If in any year treated water is available to Milliken and Milliken fails to take and use 20 million gallons of treated water, Milliken shall nonetheless pay for this minimum allotment of treated water.

2.2 Nothing herein shall limit Milliken from taking treated water in excess of 20 million gallons subject to the availability thereof. All treated water in excess of 20 million gallons shall be expressly conditioned upon Greeley having the excess capacity to provide such water, and Milliken shall pay for the same.

3. POINT OF DELIVERY.

3.1 Treated water from the Greeley Water System shall be delivered to Milliken through multiple master meters, the location of which will be mutually established and agreed upon in writing by both municipalities. Unless specifically authorized by Greeley, no water from the Milliken System shall flow into the Greeley Water System.

3.2 Unless otherwise agreed upon between the parties, Greeley shall construct, own and maintain treated water meter vaults, meters, back-flow prevention devices and all associated facilities located at and upstream of the delivery points. All of the costs of the metering facilities attributable to service to Milliken shall be paid by Milliken by and through inclusion in the Milliken rate base charged by Greeley and more fully described in paragraph 7. Greeley agrees to design, construct and maintain all metering facilities in a prudent and cost effective manner. Milliken agrees to secure and provide such easements as may be required by Greeley for metering facilities, and to guarantee access to metering facilities for Greeley. Each water meter shall be operated and maintained so as to record both cumulative flow and, as needed, maximum hourly and maximum daily flow within the accuracy prescribed by the then-current American Water Works Standards, or such other industry-recognized standard if American Water Works Standards are no longer available. Each party will give the other seven calendar days notice prior to conducting any routine or independent meter test. Milliken shall have access to all metering facilities herein contemplated to read meters as Milliken may deem necessary. Milliken shall own, operate, maintain, and have the ability to valve the line(s) downstream of the master meter(s) for operation, maintenance, and repair purposes.

3.3 The existing master meter is located at or near the intersection of Weld County Road 54 and State Highway 257. The transmission pipeline north (upstream) of this location was constructed by Milliken and dedicated to the City of Greeley. To the extent that Greeley uses any infrastructure installed by Milliken, such usage shall be subject to reimbursement for oversizing in accordance with Greeley’s then-current ordinance.

4. POTABLE WATER PROJECTIONS AND SYSTEM CAPACITY.

4.1 No later than April 1 of each year, Milliken shall provide written notice to Greeley of its projected treated water requirements for the current calendar year and the five consecutive years following the year in which such notice is given. The projections in the notice shall include, at a minimum: estimated total annual consumption, estimated maximum day, and estimated maximum hourly usage. Concurrent with submission of the projections, Milliken shall also provide any planned system facility changes and any additional points of delivery to Milliken from Greeley. Any actual usage in excess of projected peak or total demands which has a cost impact, excepting fire flow or other emergencies, shall result in supplemental demand charges as determined by the cost-of-service rate study and approved by the Greeley Water and Sewer Board.

4.2 If Greeley determines the Greeley Water System will be unable to meet Milliken's projected demands, Greeley will give Milliken notice two years prior to the projected capacity limitation. Milliken has authority to obtain water beyond the capacity limitation from other sources. Greeley will use its best efforts to avoid a capacity limitation.

4.3 It is understood and agreed by Greeley that, as of the date of this Agreement, Milliken is also receiving treated water from Central Weld County Water District. Nothing in this Agreement limits Milliken from continuing to receive treated water from sources other than Greeley during the term of this Agreement, in whatever amounts Milliken deems appropriate.

5. RAW WATER REQUIREMENTS. Milliken shall acquire sufficient water rights which are usable in the Greeley Water System and approved for municipal use in the Milliken System under Colorado law in order to satisfy the treated water requirements of Milliken, expressly subject to the following conditions:

5.1 Greeley currently operates two water treatment plants, the Bellvue Plant and the Boyd Lake Plant, which are both capable of supplying treated water to Milliken. Milliken's raw water requirements under this Agreement are based on which plant treats the raw water used to supply the treated water to Milliken. At the time this Agreement is executed, Greeley anticipates that the Bellvue Plant will treat and supply water to Milliken during the months of January, February, March, April, October, November, and December, and that the Boyd Lake Plant will treat and supply water during the months of May through September. However, Greeley may in its sole discretion determine which plant will be used to treat any water provided by Milliken under this Agreement.

5.2 On or before April 15 of each year, Milliken shall transfer to Greeley sufficient Colorado-Big Thompson ("CBT") water to satisfy the projected Milliken demand for the full year, including a 5% shrink attributable to the Greeley Water System and any shrink due to the Northern Colorado Water Conservancy District ("Northern Water"). Subject to prior written approval from Greeley and the Water Court for Water Division No. 1 by decree or administratively by the State Engineer's Office ("SEO"), Milliken may also transfer to Greeley water rights from the Greeley-Loveland Irrigation Company ("GLIC") to satisfy a portion of the projected Milliken demand. Upon such approval by Greeley and the Water Court or SEO, the transfer of such rights shall be subject to the shrink and carryover described in paragraph 5.4 below. Greeley may immediately curtail deliveries of treated water to Milliken in any event that the transferred Milliken water rights fail to yield sufficient volumes of raw water to meet projected demands or actual metered usage.

5.3 Milliken shall pay all assessment costs from Northern Water for Milliken's CBT water and from GLIC for Milliken's GLIC water, and running charges assessed by Northern Water or GLIC, if applicable, on any of the water provided by Milliken to Greeley for treatment under this Agreement.

5.4 Water transferred by Milliken to be treated at Greeley's Boyd Lake Plant shall be of a sufficient amount to account for the 5% shrink attributable to the Greeley Water System and any shrink applied by Northern Water as described above. Transferred GLIC water shall be of a sufficient amount to additionally account for shrink and carryover factors, which will vary and be determined on an annual basis. At the time this Agreement is executed, those factors are 28% (for shrink) and 11% (for carryover). Greeley shall inform Milliken in writing as soon as Greeley knows that those loss factors have changed.

5.5 Milliken shall be solely responsible for meeting any return flow requirements associated with any GLIC raw water it provides to Greeley for treatment, as well as the submission to the Colorado Department of Water Resources ("DWR") of any decree accounting related thereto, and compliance with any other State or Federal requirements. Milliken shall provide to Greeley a copy of any such accounting submitted to DWR. While Milliken retains dominion and control over its transferred water, Greeley shall maintain complete and unilateral control over Greeley's Water System operations. Greeley may use the Greeley Water System to move Milliken transferred water to the appropriate location for treatment. Any loss in the optimal yield of Milliken water rights due to this necessary flexibility of operations will be assessed in proportion to the loss in yield to Greeley's water.

5.6 Greeley shall be obligated to treat for Milliken only that water delivered for treatment under this Agreement. If actual metered usage by Milliken exceeds the amount delivered by Milliken less losses, Greeley shall immediately notify Milliken of such shortage, and may immediately curtail deliveries of treated water to Milliken. Upon such written notification, Milliken will have twenty (20) days to transfer additional raw water to Greeley for treatment. During this period, Greeley may, at its sole discretion regarding availability, agree to lease additional raw water to Milliken at the then current rate established by the Greeley Water and Sewer Board and adopted in accordance with Section 17-4 of the Greeley City Charter, and also in accordance with the then current City of Greeley Non-Agricultural Water Rental Policy. If Greeley has additional raw water available to lease, Milliken shall be given the priority to lease it on an equal basis with the other municipalities to whom Greeley leases raw water.

5.7 Unless otherwise approved in advance by Greeley in writing, Milliken shall be limited under this Agreement to a maximum volume of treated water from the Boyd Lake Plant of 800,000 gallons per day, and a maximum volume of 70 acre-feet per calendar month. Consistent with the discretion maintained by Greeley and described in paragraph 5.1 above, Greeley may further limit these maximum volumes if it determines that additional capacity at the Boyd Lake Plant is necessary to treat and supply water to its own citizens.

6. EMERGENCY OPERATIONS. In the event of a shortage of treated water, caused by the inability of a component of the Greeley Water System to function, Milliken and Greeley shall share proportionally in water use reductions. Greeley shall develop a schedule and method of reducing water demand, with initial emphasis on reducing all nonessential uses such as lawn and parks irrigation. If a shortage persists, Milliken and Greeley agree to impose emergency rates, developed by Greeley, which may be different for each customer category and which are intended to reduce discretionary consumption of treated water. The impact of the emergency rates shall be fairly and equally distributed among both Milliken and Greeley water customers. In a prolonged shortage, Milliken and Greeley agree to adopt a uniform set of enforcement tools and penalties to curtail usage. In any such event, Greeley will make every effort feasible to continue to meet both Milliken's and Greeley's water demand, including obtaining treated water from other providers. In the event of a shortage, nothing shall prevent Milliken from independently using

an alternate source of treated water in whatever amount Milliken deems necessary, until Greeley can again bring its facilities on line.

7. RATES FOR TREATED WATER SERVICE. The rates for treated water delivered by Greeley to Milliken shall be based upon the City of Greeley water rate cost-of-service model, which includes costs for the use of those Greeley Water System assets involved in the treatment and delivery of water to Milliken under this Agreement. Milliken agrees to pay the rate of cost-of-service plus ten percent. The cost-of-service rates shall be reviewed annually by the City of Greeley and may be adjusted in accordance with Section 17-4 of the Greeley City Charter. Greeley shall give to Milliken an advance notice of ninety (90) days if the then current rate will change. Cost-of-service rates include a cost to provide peak demands, as described below.

8. BILLING. Bills shall be paid within thirty (30) days of the date due, after which time interest penalties shall begin to accrue at the rate of one percent per month, or fraction thereof, during the period in which the bill remains unpaid.

9. NO REQUIRED RIGHTS OR VESTING IN WATER RIGHTS OR IN WATER SYSTEM.

9.1 As contained in section 17-1 of the Greeley City Charter, the Greeley Water System is an Enterprise, as that term is defined pursuant to article X, section 20 of the Colorado Constitution. The Greeley Water System Enterprise is owned by the citizens of Greeley. Similarly, the Milliken System is an Enterprise, owned by the citizens of Milliken.

9.2 Milliken specifically acknowledges and agrees that no rights or ownership of the Greeley Water System shall become vested as a result of such service. Neither Greeley nor Milliken shall, by reason of any provision of this Agreement or use of water hereunder or otherwise, acquire any vested or adverse right, in law or in equity, in the water rights or water system owned by the other municipality. Neither the assignment, use, rental, or license, of water or water rights nor the payment of system development charges shall be deemed to initiate, create, or vest any rights or ownership by either Greeley or Milliken in the other's water rights or water system. Further, Milliken shall not assert or claim any vested rights to continued service, other than as established by the terms of this Agreement, as it may be amended or extended in the future.

10. POTABLE WATER. The treated water delivered by Greeley to the Milliken master meters shall be potable water which complies with applicable Federal and State potable water laws.

11. PEAK DEMAND MEASUREMENTS AND DETERMINATION. The peak daily and peak hourly demand factors to be used in the calculation of Milliken's rate for treated water service shall be equal to the peak daily and peak hourly demand factors assumed for and applicable to Greeley's own inside-the-City residential customers, as calculated in accordance with Greeley's cost-of-service rate model. In no case will past or current water bills be adjusted for changes in the peak demand factor.

12. SYSTEM DEVELOPMENT CHARGES.

12.1 Milliken shall pay to Greeley an annual system development charge ("SDC") when the metered water delivered to Milliken in any year exceeds the acre-feet delivered in the base year. Payment of the SDC will create a new base year delivery volume. No SDCs will be due in subsequent years for metered delivery equal to or less than the new base year delivery volume. Payments of the SDC will occur in twelve monthly increments following the calendar year in which

the exceedance occurs. In no case shall SDCs be refunded. Milliken's current base year volume at the time this Agreement is executed (September 2021) is 442.1 acre-feet.

12.2 The SDC due shall be a percentage of the then-current Inside the City Greeley ¾-inch tap plant investment fee (expressed in \$/acre-feet), to be multiplied by Milliken's consumption in acre-feet of water metered in excess of the base year delivery. The SDC percentage is calculated as follows: the typical Milliken single-family customer benefits from 75% of Greeley Water System. To express Greeley's plant investment fee in terms of \$/acre-feet, the average annual inside-the-City residential demand, as used in the annual update of the Greeley rate model, is divided into the plant investment fee.

12.3 THE FOLLOWING CALCULATION UTILIZES 2016 DATA TO DERIVE EXAMPLE FIGURES FOR THE SOLE PURPOSE OF DEMONSTRATING THE SDC METHODOLOGY. ANY ACTUAL SDC BORNE BY MILLIKEN WILL VARY ANNUALLY, IN ACCORDANCE WITH THE METHODOLOGY DESCRIBED IN THIS PARAGRAPH 12.

Example Conversion and Calculation of SDC Rate

Average Annual Demand:	135,000 gallons (0.414 acre-feet per ¾-inch tap)
Current Inside the City Greeley PIF:	\$10,800

Conversion of Greeley PIF: $(\$10,800) / (0.414 \text{ AF/year}) = \$26,087 \text{ per AF/year}$

Milliken SDC: $(75\%) * (\$26,087 \text{ per AF/year}) = \$19,565 \text{ per AF/year}$

Example Base Year and SDC Calculation

Milliken Base Year Volume:	442.1 acre-feet
Milliken Actual Metered Flow:	450 acre-feet (7.9 AF in excess of Base Year Volume)

Calculation of Total SDC Due: $(450-442.1) * (\$19,565) = \$154,563.50$

Milliken's Base Year Volume would then increase to become 450 AF.

13. RELEASE, HOLD HARMLESS, INDEMNIFICATION.

13.1 Both Milliken and Greeley are public entities, as that term is defined pursuant to the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq. The parties to this Agreement have the benefits and responsibility enumerated in the Colorado Governmental Immunity Act. Each party shall defend any and all claims for injuries or damages pursuant to and in accordance with the requirements and limitations of the Colorado Governmental Immunity Act occurring as a result of negligent or intentional acts or omissions of the parties, their agents, employees and assigns.

13.2 In addition, Greeley shall be responsible for any and all liability for injuries or damages caused by negligent acts or omissions of Greeley, its officers, employees, and agents performing functions or activities upon the property of Milliken. Greeley shall provide adequate workmen's compensation insurance for all of its employees, agents, and assigns engaged in activities and functions upon the property of Milliken.

13.3 Milliken shall be responsible for any and all liability for injuries or damages caused by any negligent acts or omissions of Milliken, its officers, employees, and agents, performing functions or activities upon the property of Greeley. Milliken shall provide adequate workmen's compensation insurance for all of its employees, agents, and assigns engaged in activities and functions upon the property of Greeley.

13.4 Each party shall furnish the other party upon request certificates of insurance stating that coverages adequate for the purposes outlined above are in full force and effect.

14. NO PUBLIC UTILITIES COMMISSION CONTROL. Milliken, its employees and elected or appointed officials, agree neither to assert nor support any statement, policy, petition, rule making, or legislation attempting to place the Greeley Water System under the rate-making authority or jurisdiction of the Colorado Public Utilities Commission by virtue of this Agreement or otherwise.

15. INTEGRATION, MERGER, AND SUPERSESSION. This Agreement incorporates and renews the terms and conditions of the 1999 IGA and the First Amendment not explicitly modified herein, and supersedes and replaces the previously existing agreements between Greeley and Milliken in their entirety. This Agreement contains all agreements and understandings, whether written or oral, between Greeley and Milliken regarding the subject matter herein.

16. TERM OF AGREEMENT. In the interest of reliability and security, this Agreement shall be for an initial term of twenty years from the date of execution set forth above. This Agreement expires at the end of such twenty-year term, but may be renewed for subsequent terms of ten years each by a duly authorized and executed mutual written agreement. Greeley and Milliken agree to meet at least two years before the end of the initial twenty-year term, and before the end of any subsequent terms, to review this Agreement for possible modification or renewal.

17. DEFAULT AND TERMINATION.

17.1 In the event either party fails to meet the terms and conditions of this Agreement, such failure shall constitute a default of this Agreement and the non-defaulting party may give notice of the perceived default. Notice shall be either to the Milliken Town Administrator or the Greeley City Manager. Either party may cure any default during the ninety (90) days following the notice. Upon cure of any default, this Agreement shall remain in full force and effect. Upon receipt of notice of perceived default, the defaulting party may invoke dispute resolution as provided in paragraph 20.

17.2 If after the cure period above or after mutually agreed extensions, the non-defaulting party determines the default has not been cured, they may give two years notice of termination of this Agreement. Nothing herein shall limit either party from collecting damages and amounts due from the other party upon termination of this Agreement by default.

17.3 This Agreement may be terminated by either party by giving written notice to the other party at least two years before the end of the initial twenty-year term, or at least two years before the end of any subsequent terms. This Agreement may otherwise be terminated at will by Greeley by giving an advance written notice to Milliken of no less than four years.

17.4 Milliken agrees that annexation by Milliken of land north of Weld County Road 54 shall be approved by Greeley in writing prior to the annexation. Violation of this provision may be grounds for termination of this Agreement.

17.5 Milliken agrees not to oppose any annexation by Greeley of property north of Weld County Road 54 and Greeley agrees not to oppose any annexation by Milliken of property south of Weld County Road 54. Both governmental entities acknowledge the value of annexation in conformance with natural, man-made, or political boundaries.

18. JURISDICTION AND VENUE. This Agreement shall be interpreted pursuant to the laws of the State of Colorado. Venue to enforce this Agreement shall be in Weld County.

19. AMENDMENT. This Agreement shall be amended only in writing with the approval of the governing bodies of each municipality. No amendment or modification shall be effective unless in writing signed by the aforesaid persons. This Agreement shall be governed by, construed and enforced in accordance with Colorado law.

20. DISPUTE RESOLUTION. Should disagreements arise regarding the interpretation of any portion of this Agreement the parties agree to resolve such disputes through negotiation; first, all the staff level; and second, with the respective Water Boards and/or City Councils. Procedures for such negotiations shall be established by mutual agreement at the time and may, with the concurrence of the parties, involve the use of qualified outside mediators. Any negotiations and resolution reached therefrom must be within the legal authority granted to the parties by appropriate City Charters and/or State statutes, or shall be null and void. Notwithstanding anything to the contrary in this Agreement, it is expressly agreed between the parties that this provision for dispute resolution does not apply to the authority granted to the Greeley Water and Sewer pursuant to Section 17-4 of the Greeley City Charter, including but not limited to, the establishment of minimum water rates.

IN WITNESS WHEREOF, the City of Greeley and the Town of Milliken have authorized and executed this Second Amendment to Intergovernmental Agreement for Treated Water Service on the date first written above.

THE TOWN OF MILLIKEN, COLORADO
a Colorado home rule municipality

ATTEST:

By: _____
Mayor

By: _____
Town Clerk

THE CITY OF GREELEY, COLORADO
a Colorado home rule municipality
acting by and through its Water Enterprise

ATTEST:

By: _____
Mayor

By: _____
City Clerk

AS TO SUBSTANCE:

By: _____
City Manager

AS TO AVAILABILITY OF FUNDS:

By: _____
Director of Finance

AS TO LEGAL FORM:

By: _____
City Attorney

FIRST AMENDMENT TO
INTERGOVERNMENTAL AGREEMENT FOR
TREATED WATER SERVICE

**BETWEEN THE CITY OF GREELEY, COLORADO
AND THE TOWN OF MILLIKEN, COLORADO**

This FIRST AMENDMENT TO INTERGOVERNMENTAL AGREEMENT FOR TREATED WATER SERVICE ("First Amendment") is entered into this 10th day of May, 2017, by and between **THE CITY OF GREELEY**, Colorado, a home rule municipality ("Greeley") and **THE TOWN OF MILLIKEN**, Colorado, a home rule municipality ("Milliken"), to set forth the terms and conditions by which Greeley will use its supply and treatment facilities to provide the treatment and delivery of potable water to Milliken.

WHEREAS, pursuant to C.R.S. §29-1-203, governments may cooperate or contract with one another to provide any function, service or facility lawfully authorized to each of the following cooperating units of government; and

WHEREAS, Greeley and Milliken previously entered into that certain Intergovernmental Agreement for Treated Water Service on July 20, 1999, which was set to expire in July of 2019 ("the 1999 IGA"); and

WHEREAS, authorized representatives of Greeley and Milliken have met on numerous occasions to review the 1999 IGA and discuss the possible renewal and modification of that agreement, in accordance with Section 16 thereof; and

WHEREAS, Greeley and Milliken have a continuing common interest in obtaining high-quality treated water in sufficient quantities to meet the present and future needs of their citizens and service areas; and

WHEREAS, Greeley and Milliken are agreeable to renewing the 1999 IGA under the terms and conditions of this First Amendment; and

WHEREAS, Greeley and Milliken desire to reduce their understandings, and the terms and conditions of this First Amendment to writing;

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which is acknowledged, and in further consideration of the mutual covenants, undertakings, terms, and conditions contained herein, Greeley and Milliken agree as follows:

1. **OTHER TERMS IN FULL FORCE AND EFFECT.** Except as explicitly modified in this First Amendment, all of the terms and conditions of the 1999 IGA remain in full force and effect.
2. **AMENDMENTS.** The 1999 IGA is hereby amended as follows.
 - a. Sections 1.7 and 1.8 of the 1999 IGA are stricken in their entirety.

b. Section 2.1 of the 1999 IGA is amended as follows.

2.1 During each full year that this agreement is in effect, Milliken shall take a minimum of 20 million gallons of treated water. If in any year treated water is available to Milliken and Milliken fails to take and use 20 million gallons of treated water, Milliken shall nonetheless pay for this minimum allotment of treated water.

c. Section 2.2 of the 1999 IGA is stricken in its entirety.

d. Section 5 of the 1999 IGA is amended in its entirety as follows.

5. RAW WATER REQUIREMENTS. Milliken shall acquire sufficient water rights which are usable in the Greeley Water System and approved for municipal use in the Milliken Water System under Colorado law in order to satisfy the treated water requirements of Milliken, expressly subject to the following conditions:

5.1 Greeley operates two water treatment plants, the Bellvue Plant and the Boyd Lake Plant, which are both capable of supplying treated water to Milliken. Milliken's raw water requirements under this First Amendment are based on which plant treats the raw water used to supply the treated water to Milliken. At the time this First Amendment is executed, it is anticipated that the Bellvue Plant will treat and supply water to Milliken during the months of January, February, November and December, and that the Boyd Lake Plant will treat and supply water the other months of the year. However, Greeley may in its sole discretion determine which plant will be used to treat any water provided by Milliken under this First Amendment.

5.2 On or before April 15 of each year, Milliken shall transfer to Greeley sufficient Colorado-Big Thompson (CBT) water to satisfy projected Milliken demand for the full year, including a 5% shrink attributable to the Greeley Water System and any shrink due to the Northern Colorado Water Conservancy District. Failure of Milliken water rights to yield sufficient raw water during a drought could result in curtailed delivery of potable water to Milliken.

5.3 Milliken shall pay all assessment costs and running charges on any of the water provided for treatment by Greeley under this First Amendment.

5.4 Water transferred by Milliken to be treated at Greeley's Boyd Lake Plant shall be of a sufficient amount to account for the 5% shrink attributable to the Greeley Water System and any shrink due to the Northern Colorado Water Conservancy District described above, plus the additional Greeley and Loveland Irrigation Company shrink and carryover water, which will vary and be determined on an annual basis. At the time this First Amendment is executed, those losses are 28% (for shrink) and 11% (for carryover).

5.5 Milliken shall be solely responsible for meeting any monthly return flow requirements associated with the raw water it provides to Greeley for treatment, state decree accounting, and other requirements of State or Federal law. While Milliken retains dominion and control over its water, Greeley shall maintain complete and unilateral control over Greeley's system operations. Greeley may use its raw water supply system to move Milliken water rights to the appropriate location for treatment. Any loss in the optimal yield of Milliken water rights due to this necessary flexibility of operations will be in proportion to the effect on Greeley's own operations.

5.6 Greeley shall be obligated to treat for Milliken only that water delivered for treatment under this First Amendment. If actual metered usage by Milliken exceeds the amount delivered by Milliken less losses, Greeley shall notify Milliken of the shortage. Upon such written notification, Milliken will have 20 days to transfer additional raw water to Greeley for treatment. Greeley may, at its sole discretion, agree to lease additional raw water to Milliken at the then current raw water surcharge rate established by the Greeley Water and Sewer Board and adopted in accordance with Section 17-4 of the Greeley City Charter. If Greeley has additional raw water available to lease, Milliken shall be given the priority to lease it on an equal basis with the other municipalities to whom Greeley leases raw water.

e. Section 7 of the 1999 IGA is amended as follows.

7. RATES FOR TREATED WATER SERVICE. The rates for treated water delivered by Greeley to Milliken shall be based upon the City of Greeley water rate cost-of-service model. Milliken agrees to pay the rate of cost-of-service plus ten percent. The cost-of-service rates shall be reviewed annually and adjusted in accordance with Section 17-4 of the Greeley City Charter. Greeley shall give to Milliken an advance notice of 90 days if the then current rate will change. Cost-of-service rates include a cost to provide peak demands, as described below.

f. Section 11 of the 1999 IGA is amended as follows.

11. PEAK DEMAND MEASUREMENTS AND DETERMINATION. Each year either Milliken or Greeley or both may register and record peak daily and peak hourly demands. Milliken's peak daily and peak hourly demand factors will either be flow-weighted averages of the several master meters, or it shall be derived from simultaneous readings from the several master meters, whichever method generates the highest demand factor. Peaking factors will be calculated based upon the average of the previous two years actual recorded peak flows. If the average of the peak hourly or the peak daily demand factors for the immediately two preceding years differs from the factors used in the most current water rate study, then the next rate study will use the highest recorded peak daily or peak hourly factor from those two preceding years. If peak daily or peak hourly demands are not registered in any given year, then the measurements used in the prior year's rate study will be used for the next rate study. In no case will past year's or current year's water bills be adjusted for changes in peak demand factors.

g. Section 12 of the 1999 IGA is amended in its entirety as follows.

12. SYSTEM DEVELOPMENT CHARGES.

12.1 Milliken shall pay to Greeley an annual system development charge ("SDC") when the metered water delivered to Milliken in any year exceeds the acre-feet delivered in the base year. Payment of system development charges will create a new base year delivery. No system development charges will be due in subsequent years for metered delivery equal to or less than the new base year delivery. Payments of the system development charge will occur in twelve monthly increments following the calendar year in which the exceedance occurs. In no case shall system development charges be refunded. Milliken's current base year volume at the time this Agreement is executed is 442.1 acre-feet.

12.2 The SDC due shall be a percentage of the then current Inside the City Greeley ¾-inch tap plant investment fee (expressed in \$/acre-foot), to be multiplied by Milliken's consumption in acre-feet of water metered in excess of the base year delivery. The SDC percentage is calculated as follows: the typical Milliken single-family customer benefits from 75% of Greeley Water System. To express Greeley's plant investment fee in terms of \$/acre-foot, the average annual inside-the-City residential demand, as used in the annual update of the Greeley rate model, is divided into the plant investment fee.

12.3 *THE FOLLOWING CALCULATION UTILIZES 2016 DATA TO DERIVE EXAMPLE FIGURES FOR THE SOLE PURPOSE OF DEMONSTRATING THE SDC METHODOLOGY. ANY ACTUAL SDC BORNE BY MILLIKEN WILL VARY ANNUALLY, IN ACCORDANCE WITH THE METHODOLOGY DESCRIBED IN THIS SECTION 12.*

Example Conversion and Calculation of SDC Rate

Average Annual Demand:	135,000 gallons (0.414 acre-feet per ¾-inch tap)
Current Inside the City Greeley PIF:	\$10,800

Conversion of Greeley PIF: $(\$10,800) / (0.414 \text{ AF/year}) = \$26,087 \text{ per AF/year}$

Milliken SDC: $(75\%) * (\$26,087 \text{ per AF/year}) = \$19,565 \text{ per AF/year}$

Example Base Year and SDC Calculation

Milliken Base Year Volume:	442.1 acre-feet
Milliken Actual Metered Flow:	450 acre-feet (17.9 AF in excess of Base Year Volume)

Calculation of Total SDC Due: $(450 - 442.1) * (\$19,565) = \$154,563.50$

Milliken's Base Year Volume would then increase to become 450 AF

h. Section 15 of the 1999 IGA is amended as follows.

15. **INTEGRATION, MERGER, AND SUPERSESSION.** This First Amendment incorporates and renews the terms and conditions of the 1999 IGA not explicitly modified herein, and supersedes all terms and conditions of any other agreements regarding water supply previously existing between Greeley and Milliken. This First Amendment contains all agreements and understandings, whether written or oral, between Greeley and Milliken regarding the subject matter herein.

i. Section 16 of the 1999 IGA is amended as follows.

16. **TERM OF AGREEMENT.** In the interest of reliability and security, this First Amendment shall be for an initial term of twenty years from the date of execution set forth above. This First Amendment expires at the end of such twenty-year term, but may be renewed for subsequent terms of ten years each by a duly authorized and executed mutual written agreement. Greeley and Milliken agree to meet at least two years before the end of the initial twenty-year term, and before the end of any subsequent terms, to review this First Amendment for possible modification.

j. Section 17.3 of the 1999 IGA is amended as follows.

17.3 This First Agreement may be terminated by either party by giving written notice to the other party at least two years before the end of the initial twenty-year term, or at least two years before the end of any subsequent terms. This First Amendment may otherwise be terminated at will by Greeley by giving an advance written notice to Milliken of no less than four years.

IN WITNESS WHEREOF, the City of Greeley and the Town of Milliken have authorized and executed this First Amendment to Intergovernmental Agreement for Treated Water Service on the date first written above.

THE TOWN OF MILLIKEN, COLORADO

ATTEST:

By: _____

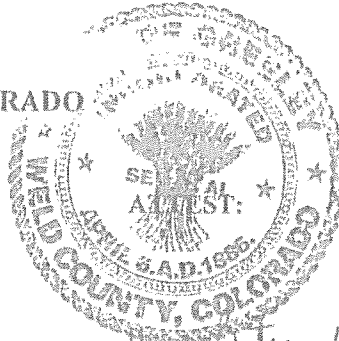
Mayor

By: _____

Town Clerk

THE CITY OF GREELEY, COLORADO

THE CITY OF GREELEY, COLORADO



By: [Signature]
Mayor Pro-Tem

By: [Signature]
City Clerk

WATER AND SEWER BOARD:

AS TO SUBSTANCE:

By: [Signature]
Chairman

By: [Signature]
City Manager

AS TO LEGAL FORM:

AS TO AVAILABILITY OF FUNDS:

By: [Signature]
City Attorney

By: [Signature]
Director of Finance

**INTERGOVERNMENTAL AGREEMENT FOR
TREATED WATER SERVICE**

**BETWEEN THE CITY OF GREELEY, COLORADO
AND THE TOWN OF MILLIKEN, COLORADO**

THIS AGREEMENT is made this 20th day of July, 1999, by and between **THE CITY OF GREELEY**, Colorado, a home rule municipality ("Greeley") and **THE TOWN OF MILLIKEN**, Colorado, a home rule municipality ("Milliken"), for the treatment and delivery of potable water to the Town of Milliken by and through the supply, treatment facilities, and transmission lines of the City of Greeley, Colorado.

WHEREAS, pursuant to § 29-1-203, C.R.S., governments may cooperate or contract with one another to provide any function, service or facility lawfully authorized to each of the cooperating or contracting units of government; and

WHEREAS, the Town of Milliken and the City of Greeley are neighboring municipalities which have a common interest in obtaining high-quality water in sufficient quantity to meet present and future needs; and

WHEREAS, the citizens of Milliken desire long-term reliability in treated water; and

WHEREAS, Milliken and Greeley can cost-effectively combine their demand for treated water through one system of supply, treatment, transmission, and treated water storage thereby achieving economies of scale; and

WHEREAS, in addition to its own needs and demand, Greeley has the capacity and the facilities to meet the needs of Milliken for water treatment and transmission as are more fully set forth herein; and

WHEREAS, Milliken will receive treated water from additional wholesale providers; and

WHEREAS, Greeley intends to develop the Highway 34 corridor and is not willing to provide water to Milliken to support competing growth by Milliken adjacent to Highway 34; and

WHEREAS, Milliken and Greeley shall and will continue to own their water rights individually and separately, each municipality relying upon the yield of its own water rights to provide the raw water necessary for treatment proposed under this agreement; and

WHEREAS, Greeley and Milliken are agreeable to entering into a long-term contract for the treatment and delivery of potable water to Milliken through an intergovernmental agreement; and

Milliken-Greeley Finished Water Agreement

6 July 1999

WHEREAS, the parties are desirous of reducing the understandings, terms, and conditions of said agreement to writing.

NOW THEREFORE, IN CONSIDERATION of the mutual covenants, undertakings, terms and conditions contained herein, the parties agree as follows:

1. DEFINITIONS. The terms used herein are defined as follows:

1.1 "Greeley" shall refer to the City of Greeley and any authorized representative thereof.

1.2 "Greeley water system" or "Greeley water system enterprise" shall refer to Greeley's water treatment plants, treated water conveyance and storage systems, pump stations and related appurtenances for the collection, distribution, and measurement of water.

1.3 "Peak daily demand" means the greatest rate of treated water delivered by Greeley to Milliken over a twenty-four hour period, beginning at midnight, in a given day.

1.4 "Peak hourly demand" means the greatest rate of treated water delivered by Greeley to Milliken over sixty consecutive minutes for any given day of the calendar year.

1.5 "Milliken" shall refer to the Town of Milliken and any authorized representative thereof.

1.6 "Milliken system" or "Milliken water system enterprise" shall refer to Milliken's treated water conveyance and storage systems, pump stations, and related appurtenances for the distribution of water downstream of master meters gauging Greeley's delivery to Milliken.

1.7 "Year" means a calendar water year beginning on January 1 unless otherwise noted.

1.8 "Milliken Bellvue Demand" is Milliken's total water use in December, January, and February multiplied by four and represents the portion of Milliken's annual demand satisfied by the Bellvue treatment plant.

2. USE. Pursuant to the terms of this intergovernmental agreement, Greeley agrees to treat water, usable in the Greeley water system and approved for municipal use in Milliken system under Colorado law, for Milliken in the manner and in such amounts as are more fully set forth herein.

2.1 It is understood and agreed that in anticipation upon providing water to Milliken, the Town has appropriated certain funds for the construction of a transmission line capable of receiving and transporting such water from Greeley. The parties acknowledge that the construction of this transmission line is a condition precedent to delivery of water to Milliken. Water shall be made available to Milliken upon the completion of the transmission line. Commencing with the first full year that this agreement is in effect and continuing annually for the term of this agreement Greeley shall make available not less than 30 million gallons of treated water. During each full year that this

Milliken-Greeley Finished Water Agreement

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agreement is in effect Milliken shall take a minimum of 20 million gallons of treated water. If in any year treated water is available to Milliken and Milliken fails to take and use 20 million gallons of treated water, Milliken shall nonetheless pay for this minimum allotment of treated water.

2.2 The parties further acknowledge that the initial year of this agreement will likely not be a full year. In this event, Milliken will be relieved of the 20 million gallons minimum requirement and will be required to pay only for the treated water actually delivered in this first year.

2.3 Nothing herein shall limit Milliken from taking treated water in excess of 20 million gallons subject to the availability thereof. All treated water in excess of 20 million gallons shall be expressly conditioned upon Greeley having the excess capacity to provide such water, and Milliken shall pay for the same.

3. POINT OF DELIVERY.

3.1 Treated water from the Greeley water system shall be delivered to Milliken through multiple master meters, the location of which will be mutually established and agreed upon in writing by both municipalities. Unless specifically authorized by Greeley, no water from Milliken's system shall flow into Greeley's system.

3.2 Unless otherwise agreed upon between the parties, Greeley shall construct, own and maintain treated water meter vaults, meters, back-flow prevention devices and all associated facilities located at the delivery points. All of the costs of the metering facilities attributable to service to Milliken shall be paid by Milliken by and through inclusion in the Milliken rate base charged by Greeley and more fully described in paragraph seven of this agreement. Greeley agrees to design, construct and maintain all metering facilities in a prudent and cost effective manner. Milliken agrees to secure and provide such easements as may be required by Greeley for metering facilities, and to guarantee access to metering facilities for Greeley. Each water meter shall be operated and maintained so as to record both cumulative flow and, as needed, maximum hourly and maximum daily flow within the accuracy prescribed by current American Water Works Standards. Each municipality will give the other seven calendar days notice prior to any routine or independent meter test. Milliken shall have access to all metering facilities herein contemplated to read meters as Milliken may deem necessary. Milliken shall own, operate, maintain, and have the ability to valve the line downstream of the master meter for operation, maintenance, and repair purposes.

3.3 The master meter shall be located at or near the intersection of Weld County Road 54 and State Highway 257. Transmission pipeline north of this point will be constructed by Milliken and dedicated to the City of Greeley. To the extent that Greeley uses the infrastructure installed by Milliken, such usage shall be subject to reimbursement for oversizing in accordance with Greeley's current ordinance.

4. POTABLE WATER PROJECTIONS AND SYSTEM CAPACITY

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4.1 No later than April 1 of each year, Milliken shall provide written notice to Greeley of its projected treated water requirements for the current calendar year and the five consecutive years following the year in which such notice is given. The projections in the notice shall include, at a minimum: estimated total annual consumption, estimated maximum day, estimated maximum hourly usage, planned system facility changes, and additional points of delivery to Milliken from Greeley. Any actual usage in excess of projected peak or total demands which has a cost impact, excepting fire flow or other emergencies, shall result in supplemental demand charges as determined by the cost-of-service rate study and approved by the Greeley Water and Sewer Board.

4.2 If Greeley determines the Greeley water system will be unable to meet Milliken's projected demands, Greeley will give Milliken notice two years prior to the projected capacity limitation. Milliken shall have authority to obtain water beyond the capacity limitation from other sources. Greeley will use its best efforts to avoid a capacity limitation.

4.3 It is understood and agreed that as of the date of this agreement Milliken is receiving treated water from Central Weld County Water District. Nothing in this agreement shall be construed as limiting Milliken from continuing to receive treated water from sources other than Greeley during the term of this agreement, in whatever amounts Milliken deems appropriate.

5. RAW WATER REQUIREMENTS. Milliken shall acquire sufficient water rights which shall be usable in the Greeley water system and approved for municipal use in the Milliken system under Colorado law in order to satisfy the treated water requirements of Milliken, expressly subject to the following conditions:

5.1 On or before April 15 of each year, Milliken shall transfer to Greeley sufficient Colorado-Big Thompson (CBT) water to satisfy Milliken demand for the full year including a 5% shrink. Failure of Milliken water rights to yield sufficient raw water during a drought could result in curtailed delivery of potable water to Milliken.

5.2 Milliken shall pay all assessment costs and running charges on any of the water provided for treatment by Greeley under this agreement. Water other than Milliken's Bellvue demand will be treated by the Boyd Lake plant and will be subject to Greeley and Loveland Irrigation Company shrink and carryover water. Presently those losses are 28% and 11% respectively.

5.3 Milliken shall be responsible for meeting any monthly return flow requirements of the raw water provided to Greeley for treatment, state decree accounting, and other requirements of State or Federal law. While Milliken retains dominion and control over its water, Greeley shall maintain complete and unilateral control over Greeley's system operations. Greeley's raw water supply system may be used by Greeley to move Milliken's water rights to the appropriate location for treatment. This necessary flexibility of operations may result in less than optimal yield of Milliken water rights, but will be in proportion to Greeley's own operations..

Milliken-Greeley Finished Water Agreement

6 July 1999

5.4 Greeley shall be obligated to treat for Milliken only that water delivered for treatment under this Section 5. If metered usage by Milliken exceeds the amount delivered less losses, Greeley shall notify Milliken of the shortage. Upon written notification, Milliken will have 20 days to transfer additional raw water to Greeley for treatment. Greeley may, at its sole discretion, agree to lease additional raw water to Milliken at the then raw water surcharge rate established by the Greeley Water and Sewer Board and adopted in accordance with section 17-4 of the Greeley City Charter. If Greeley has additional raw water available to lease, Milliken shall be given first priority to lease it on an equal basis with the other municipalities to whom Greeley leases raw water.

6. EMERGENCY OPERATIONS. In the event of a shortage of treated water, caused by the inability of a component of the Greeley water system to function, Milliken and Greeley shall share proportionally in water use reductions. Greeley shall develop a schedule and method of reducing water demand, with initial emphasis on reducing all nonessential uses such as lawn and parks irrigation. If a shortage persists, Milliken and Greeley agree to impose emergency rates, developed by Greeley, which may be different for each customer category and which are intended to reduce discretionary consumption of treated water. The impact of the emergency rates shall be fairly and equally distributed among both Milliken and Greeley water customers. In a prolonged shortage, Milliken and Greeley agree to adopt a uniform set of enforcement tools and penalties to curtail usage. In any such event, Greeley will make every effort feasible to continue to meet both Milliken's and Greeley's water demand, including obtaining treated water from other providers. In the event of a shortage, nothing shall prevent Milliken from independently using an alternate source of treated water in whatever amount Milliken deems necessary, until Greeley can again bring its facilities on line.

7. RATES. The rates for treated water delivered to Milliken shall be based upon the water rate cost-of-service model developed by Greeley's water rate consultant, Black and Veatch, and or modified from time to time and accepted by the Greeley Water and Sewer Board. Milliken agrees to pay the rate of cost-of-service plus ten percent. The cost-of-service rates shall be reviewed annually and adjusted in accordance with section 17-4 of the Greeley City Charter. Milliken shall be given 90-days notice of rate changes. Cost-of-service includes a cost to provide peak demands.

8. BILLING. Bills shall be paid within thirty days of the date due, after which time interest penalties shall begin to accrue at the rate of one percent per month, or fraction thereof, during the period in which the bill remains unpaid.

9. NO ACQUIRED RIGHTS OR VESTING IN WATER RIGHTS OR IN WATER SYSTEM.

9.1 As contained in section 17-1 of the Greeley City Charter, the Greeley water system is an Enterprise, as that term is defined pursuant to article X, section 20 of the Colorado Constitution. The Greeley water system Enterprise is owned by the citizens of Greeley. Similarly, the Milliken system is an Enterprise, owned by the citizens of Milliken.

Milliken-Greeley Finished Water Agreement

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9.2 Milliken specifically acknowledges and agrees that no rights or ownership of the Greeley water system shall become vested as a result of such service. Neither Greeley nor Milliken shall, by reason of any provision of this agreement or the use of water hereunder or otherwise, acquire any vested or adverse right, in law or in equity, in the water rights or water system owned by the other municipality. Neither the assignment, use, rental, or license of water or water rights nor the payment of system development charges shall be deemed to initiate, create, or vest any rights or ownership by either Greeley or Milliken in the other's water rights or water system. Further, Milliken shall not assert or claim any vested rights to continued service, other than as established by the terms and conditions of this agreement.

10. POTABLE WATER. The treated water delivered by Greeley to the Milliken master meters shall be potable water which complies with applicable potable water law.

11. PEAK DEMAND MEASUREMENTS AND DETERMINATION. Each year either Milliken or Greeley or both may register and record peak daily and peak hourly demands. Milliken's peak daily and peak hourly demand factors will either be flow-weighted averages of the several master meters, or it shall be derived from simultaneous readings from the several master meters, whichever method generates the highest demand factor. Peaking factors will be calculated based upon the average of the previous two years actual recorded peak flows. If the average of the peak hourly or the peak daily demand factors for the two immediately preceding years differs from the factors used in the most current water rate study, then the next rate study will use the highest recorded peak daily or peak hourly factor from those two preceding years. If peak daily or peak hourly demands are not registered in any given year, then the measurements used in the prior year's rate study will be used for the next rate study. In no case will past year's or current year's water bills be adjusted for changes in peak demand factors. Until such time as actual peaking factors are determined, Milliken peaking factors shall be assumed to be equal to Greeley's factors which are estimated by Black & Veatch for use in their rate model.

12. SYSTEM DEVELOPMENT CHARGE.

12.1 A system development charge (SDC) shall be due to Greeley when the metered water delivered to Milliken in any year exceeds the acre-feet delivered in the base year. Payment of system development charges will create a new base year delivery. No system development charges will be due in subsequent years for metered delivery equal to or less than the new base year delivery. Payments of the system development charge will occur in twelve monthly increments following the calendar year in which the exceedance occurs. In no case shall system development charges be refunded. The initial base year allowance is zero acre-feet.

12.2 The SDC due is a percentage of the then current inside-Greeley 3/4-inch tap plant investment fee (expressed in \$/acre-foot) and multiplied by Milliken's consumption in acre-feet of water metered in excess of the base year delivery. The SDC percentage is calculated as follows: the typical Milliken single-family customer benefits from 75% of Greeley water system, as determined by the rate model. To express Greeley's plant investment fee in terms of \$/acre-foot, the average

Milliken-Greeley Finished Water Agreement

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annual residential demand (190,000 gallons or 0.583 AF per 3/4-inch tap) is divided into the plant investment fee; for example:

Greeley's current PIF is	$(\$2,920) / (0.583 \text{ AF/year}) = \$5,009 \text{ per AF/year}$
Milliken 1998 SDC is	$(75\%)*(\$5,009/\text{AF/yr}) = \$3,756 \text{ per AF/yr}$

Example: if Milliken's year 2001 metered flow were 102 AF, exceeding a base of 92 AF, a SDC of \$37,560 would be due:

$(102 - 92)*(\$3,756) = \$37,560$. The new base year would become 102 AF.

12.3 Milliken's initial SDC for the first full year shall be for a base of 61 acre feet (20 million gallons) at \$3,756/AF equaling \$229,116. The initial SDC shall be paid before service begins.

13. RELEASE, HOLD HARMLESS, INDEMNIFICATION.

13.1 Both Milliken and Greeley are public entities, as that term is defined pursuant to the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq. The parties to this agreement have the benefits and responsibility enumerated in the Colorado Governmental Immunity Act. Each party shall defend any and all claims for injuries or damages pursuant to and in accordance with the requirements and limitations of the Colorado Governmental Immunity Act occurring as a result of negligent or intentional acts or omissions of the parties, their agents, employees and assigns.

13.2 In addition, Greeley shall be responsible for any and all liability for injuries or damages caused by any negligent acts or omissions of Greeley, its officers, employees and agents, performing functions or activities upon the property of Milliken. Greeley shall provide adequate workmen's compensation insurance for all of its employees, agents and assigns engaged in activities and functions upon the property of Milliken.

13.3 Milliken shall be responsible for any and all liability for injuries or damages caused by any negligent acts or omissions of Milliken, its officers, employees and agents, performing functions or activities upon the property of Greeley. Milliken shall provide adequate workmen's compensation insurance for all of its employees, agents and assigns engaged in activities and functions upon the property of Greeley.

13.4 Each party shall furnish the other party current certificates of insurance stating the coverages outlined above are in full force and effect.

14. NO PUBLIC UTILITIES COMMISSION CONTROL. Milliken, its employees and elected or appointed officials, agree neither to assert nor support any statement, policy, petition, rule making, or legislation attempting to place the Greeley water system under the rate making authority or jurisdiction of the Colorado Public Utilities Commission by virtue of this intergovernmental agreement or otherwise.

Milliken-Greeley Finished Water Agreement

6 July 1999

15. THIS AGREEMENT CONTROLS AND SUPERSEDES PREVIOUS AGREEMENTS. This agreement shall supersede any and all terms and conditions of water supply agreements previously existing between Greeley and Milliken.

16. TERM. In the interest of reliability and security, this agreement shall be for a term of twenty years from the date of its execution, and shall terminate at the end of the term unless renewed by mutual written agreement. Both parties hereby agree to meet at least two years before the end of the term to review their agreement for possible renewal and /or modification.

17. DEFAULT AND TERMINATION.

17.1 In the event either party fails to meet the terms and conditions of this agreement, such failure shall constitute a default of this agreement and the non-defaulting party may give notice of the perceived default. Notice shall be either to the Milliken Town Administrator or the Greeley City Manager. Either party may cure any default during the ninety days following the notice. Upon cure of any default, this agreement shall remain in full force and effect. Upon receipt of notice of perceived default, the defaulting party may invoke dispute resolution as provided in Paragraph 20.

17.2 If after the cure period above or after mutually agreed extensions, the non-defaulting party determines the default has not been cured, they may give two years notice of termination of this agreement. Nothing herein shall limit either party from collecting damages and amounts due from the other party upon termination of this agreement by default.

17.3 The agreement may be terminated by either party by giving written notice to the other party at least two years before the end of the agreement term or renewals thereof.

17.4 Milliken agrees that annexation by Milliken of land north of Weld County Road 54 shall be approved by Greeley in writing prior to the annexation. Violation of this provision shall be grounds for termination of this agreement.

17.5 Milliken agrees not to oppose any annexation by Greeley of property north of Weld County Road 54 and Greeley agrees not to oppose any annexation by Milliken of property south of Weld County Road 54. Both cities acknowledge the value of annexation in conformance with natural, man-made, or political boundaries.

18. JURISDICTION AND VENUE. This agreement shall be interpreted pursuant to the laws of the State of Colorado. Venue to enforce this agreement shall be in Weld County.

19. AMENDMENT. This agreement shall be amended only in writing with the approval of the governing bodies of each municipality. No amendment or modification shall be effective unless in writing signed by the aforesaid persons. This agreement shall be governed by, construed and enforced in accordance with Colorado law.

Milliken-Greeley Finished Water Agreement

6 July 1999

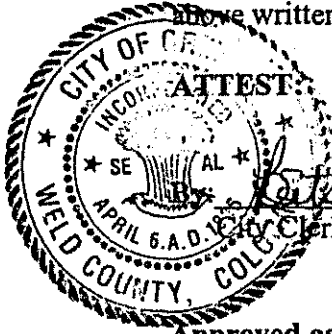
20. DISPUTE RESOLUTION. Should disagreements arise regarding the interpretation of any portion of this agreement the parties agree to make efforts to resolve such disputes through negotiation; first, at the staff level; and second, with the respective Water Boards and/or City Councils. Procedures for such negotiations shall be established by mutual agreement at the time and may, with the concurrence of the parties, involve the use of qualified outside mediators. Any negotiations and resolution agreements reached therefrom must be within the legal authority granted to the parties by appropriate City Charters and/or State statutes, or shall be null and void. Notwithstanding anything to the contrary in this agreement, it is expressly agreed between the parties that this provision for dispute resolution does not apply to the authority granted the Greeley Water and Sewer Board pursuant to § 17-4 of the Greeley City Charter, including but not limited to, the establishment of minimum water rates.

(The remainder of this page is intentionally blank)

Milliken-Greeley Finished Water Agreement

6 July 1999

IN WITNESS WHEREOF, the parties have executed this agreement the day and year first above written.



ATTEST:

Kathy D. Holder
City Clerk

THE CITY OF GREELEY, COLORADO

By: *John Nelson*
Mayor

Approved as to Substance:

By: *Al Sheef*
City Manager

Approved as to Legal Form:

By: *R. P. M.*
City Attorney

As to Availability of Funds:

By: *Frank J. Mac*
Director of Finance

GREELEY WATER AND SEWER BOARD

By: *Ronald A. Ringle*
Vice Chairman

ATTEST:

By: *Wendy J. Anderson*
Town City Clerk

THE TOWN OF MILLIKEN, COLORADO

By: *Ed J. Haug*
Mayor

Second Amendment to IGA for Treated Water Service with the Town of Milliken

**Presented to the Greeley City Council
October 5, 2021
By: Sean Chambers, Director**



Water Service IGA Background

Outside City Water Treatment and Delivery Service IGA

- Milliken does not operate its own water treatment facilities
 - Milliken partners with other providers including Greeley for water treatment service
- 2nd Amendment to the IGA makes limited revisions to the First Amendment to IGA (May of 2017)
- IGA provides ongoing commitment to treat and deliver a portion of Milliken's supply
 - Milliken required to meet Greeley Raw Water Requirements
 - Transferring water to Greeley by April 15 of each year
 - Obligating Milliken to pay all running charges, shrink and system losses



2nd Amendment IGA

Two basic revisions to the First Amendment:

1. Provides that Milliken could transfer to Greeley for treatment appropriately approved for use GLIC supplies for treatment at Boyd WTP, when its in operations.
2. Provides stability in how peak demands are calculated within the Cost of Service Rate Model
 - Change will limit the rate variability that has characterized Milliken's outside city rates and limit impacts to Greeley





Staff Recommendation

- **Staff Recommends Approval of the 2nd Amendment to the IGA for Treated Water Service with the Town of Milliken**
- **Greeley Water & Sewer Board approved and recommended to approval to City Council at their 15 September Board Meeting**

Questions ?



Council Agenda Summary

October 5, 2021

Key Staff Contact: Sean Chambers, Water & Sewer Director, 970-350-9815

Title:

Introduction and first reading of an ordinance Adopting the 2021 Non-Potable Water Master Plan and Amending the 2018 Comprehensive Plan to include the same by reference.

Summary:

Water and Sewer Department launched the process of completing a Non-Potable Water Master Plan in 2018 with CDM Smith. CDM has extensive master planning experience with Greeley completing work in 2008 and 2014. The two primary goals of the project are to reduce use of potable water for irrigation and increase non-potable use. The development of the master plan started with inventorying all 45 different wells and pump stations within the existing system. This critical step allowed the project team to evaluate the existing system for deficiencies and where the system has capacity for expansion. Next step in the project, development of the existing system model for all sites based on historical usage, piping configurations, and pumping capacity. The project progressed to utilizing the system model to look at existing conditions of the system and planning for the expansion of the system in the 5-year, 20-year, and full system build-out time frames. The expansion of the system was coordinated with the "Summary of RAS (Refined Alternative Screening) Demand Scenarios" report from BBC Research & Consulting and matched the middle scenario adoption rates. The adoption scenarios are dependent on final City policy's and should be developed to meet or enhance the adoption rates. The expansion of the system focused on expanding the non-potable system at existing and future parks as the hubs of the systems. The final steps included developing CIP projects throughout the system and making sure it was coordinated with the other two Water & Sewer master plan projects and other City Department CIP projects. The project team conducted work sessions with Westminster, Denver Water, Evans, and Windsor to learn about their systems and examine opportunities for collaboration. The final aspects of the project included coordinating outreach efforts to discuss the planned master plans with different community members and groups interested in participating in reviewing the City's draft master plan and providing critical input or comments. This different feedback and input has now been incorporated into the master plan final report completed in June 2021.

Article XVII, Section 17-7 of the Greeley Charter requires that the Water and Sewer Board recommend long rang plans to City Council for water and sanitary sewer improvements. On September 15, 2021, staff presented the 2021 Non-Potable Master Plan (the "Plan") to the Water and Sewer Board. By motion, the Water and Sewer Board recommended that City Council adopt the Plan and incorporate the same by reference as an amendment to the 2018 Comprehensive Plan.

Article XIX, Section 19-1 (b) of the Greeley Charter described the Planning Commission's role in providing advice on land use matters to the City Council. The

2018 Comprehensive Plan also requires the Planning Commission conduct a public hearing on any proposed amendment to the 2018 Comprehensive Plan, which includes a modification to policies contained within master plans adopted by reference, and provide a recommendation to City Council. On September 14, 2021, the Planning Commission held a public hearing on the Plan with a presentation by staff and opportunity for public comment. By motion, the Planning Commission recommended that City Council adopt the Plan and incorporate the same by reference as an amendment to the 2018 Comprehensive Plan.

The Plan provide the backbone infrastructure required for long term growth of the non-potable water system. The planning documents are essential to ensure future development in Greeley has adequate public facilities and services. These master plans address the City of Greeley Comprehensive Plan Action Plan items: IMP IN-1.2, IMP IN-1.5, IMP IN-1.6, IMP IN-1.7, and IMP-IN-1.8 as shown in Attachment C.

Fiscal Impact:

Does this item create a fiscal impact on the City of Greeley?	No
If yes, what is the initial, or, onetime impact?	
What is the annual impact?	
What fund of the City will provide Funding?	
What is the source of revenue within the fund?	N/A
Is there grant funding for this item?	N/A
If yes, does this grant require a match?	
Is this grant onetime or ongoing?	
Additional Comments:	

Legal Issues:

Consideration of this matter is a legislative process.

Other Issues and Considerations:

Strategic Work Program Item or Applicable Council Priority and Goal:

Economic Health & Development: Foster and maintain public and private investment in business development.

Infrastructure & Growth: Establish the capital and human infrastructure to support and maintain a safe, competitive, appealing and successful community.

Decision Options:

- 1) Introduce the ordinance as presented; or
- 2) Amend the ordinance and introduce as amended; or
- 3) Deny the ordinance; or
- 4) Continue consideration of the ordinance to a date certain.

Council's Recommended Action:

A motion to introduce the ordinance and schedule the public hearing and final reading for October 19, 2021.

Attachments:

Attachment A – Non-Potable Water Master Plan

Attachment B – City of Greeley Comprehensive Plan: Action Plan for Infrastructure

Attachment C – Ordinance adopting the Plan and amending the 2018 Comprehensive Plan to incorporate by reference.



FINAL

Greeley Non-Potable Water Master Plan

June 2021



**CDM
Smith**

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Acronyms and Abbreviations

\$/LF	dollars per linear foot
AF	acre-feet
AFY	acre-feet per year
BBC report	City of Greeley Population and Water Demand Projections
cfs	cubic feet per second
CMMS	computerized maintenance management system
C-H	commercial high intensity
C-L	commercial low intensity
CIP	capital improvement plan or program
City's Specifications	City of Greeley Design Criteria and Construction Specifications
Dev	development
EDR	engineering development review
EPS	extended period simulation
ENR-CCI	Engineering News Record Cost Construction Index
fps	feet per second
ft	feet
GIS	Geographic Information System
gpm	gallons per minute
gpm/acre	gallons per minute per acre
gpd/acre	gallons per day per acre
GPS	Global Positioning System
GLIC	Greeley-Loveland Irrigation Company
GIC	Greeley Irrigation Company
HOA	homeowners association
HDD	horizontal direct drilling
in	inches
I-L	industrial low intensity
I-M	industrial medium intensity
I-H	industrial high intensity
LREGA	long-range expected growth area
MG	million gallons
MGD	million gallons per day
NPMP	Non-Potable Water System Master Plan
NP	non-potable
OPCC	opinion of probable construction cost
O&M	operations and maintenance
psi	pounds per square inch
Poudre Ponds	Poudre Ponds Complex Project
PLC	Programmable Logic Controller
RTU	Radio Telemetry Unit
R-E	residential estate
R-H	residential high density
R-L	residential low density

R-M	residential medium density
SA	Service Area
SSMP	Sanitary Sewer Master Plan
SCADA	supervisory control and data acquisition
VFD	Variable Frequency Drive
W/S	City of Greeley Water and Sewer Department
WTDMP	Water Transmission and Distribution Master Plan

Definitions

Adoption rate - an estimate of the amount of land that could potentially be irrigated that is expected to use NP irrigation; this value is based on customer type and should only be used for planning level estimates, not design

Buildout - the theoretical point in time where the City has experienced complete development within the LREGA, expected to be sometime after year 2090

Bulk area - the total area of a parcel, including both the irrigated area and the impermeable area (such as buildings and parking lots)

Capital improvement - a recommended construction project to improve or expand the water system, summarized in the capital improvement plan

Conversion area - a previously developed parcel that is currently irrigated by potable water, but may consider switching to NP irrigation in the future; the amount of irrigated area for this type of customer is typically known

Diurnal curve - a pattern of peaking factors applied to a base demand (the typical demand for an area) that shows how demands vary by pattern throughout the day; the diurnal curve typically includes the peak hour

Extended period simulation - a hydraulic modeling methodology that shows how the system performs over a set timescale, during which demands and operating conditions can vary

Flow factor - value used to estimate the water demand that a given amount of land will produce once it's developed, depending on its land use

Hub-and-spoke - methodology for NP infrastructure design where a future pond and pump station (usually located at a park) is not connected to other pump stations and becomes an individual system with distribution piping extending out from it

Irrigated area - the portion of a parcel that requires irrigation (i.e. only permeable area)

Long range expected growth area - the limits of the City's expected growth and where it plans to provide water and wastewater services

Non-potable water - raw (untreated) water from agricultural ditches used to irrigate certain areas within the City

North of the River - the geographic area north of the Poudre River and within the City's LREGA

Opinion of probable construction cost - the costs borne by the contractor to construct a capital project

Peak day demand - the maximum demand anticipated to occur during a one-day period expressed as the daily average

Peak hour demand - the average demand anticipated during a maximum one-hour period for a typical year; this is considered to be a conservative value for infrastructure sizing

Peak month demand - the average demand anticipated during a maximum one-month period for a typical year, typically experienced during July

Planning horizon - a timeframe used to estimate expected demands and infrastructure needs; for this master plan, the three planning horizons are 5-year (2025), 20-year (2040) and buildout

Service area - the general geographic area that is served by or expected to be served by an individual NP system

Shoulder month/season - the periods in early spring and late fall where NP customers begin to require some irrigation water, but the agricultural ditches are not yet operational, occasionally resulting in the NP system being supplied by potable water

Shoulder tap - locations where the NP system can take water from the potable water distribution system during the early spring and late fall shoulder months

Summer water use - the amount of water used in summer months, defined as July and August

Tier 1, 2 or 3 - tier of information used to distribute future flow parameters to currently undeveloped areas or areas of redevelopment

Undeveloped land - land that does not currently have development, but may be eligible for NP irrigation when construction is completed in the future; the amount of irrigated area for this type of customer is unknown and therefore estimated.

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Executive Summary

The City of Greeley, Colorado (the City) is in Weld County approximately 60 miles northeast of Denver, east of Fort Collins and Loveland. The City is the twelfth largest city in Colorado and has developed into a cultural and academic hub, hosting educational institutions such as the University of Northern Colorado and Aims Community College. The City offers an affordable cost of living with many options for housing and economic growth. The City's population grew from 20,354 in 1950 to an estimated population of 108,175 in 2019. The City continues to experience strong growth in population through both infill and also through an expansion of residential, industrial, and commercial development within the City's defined service area.

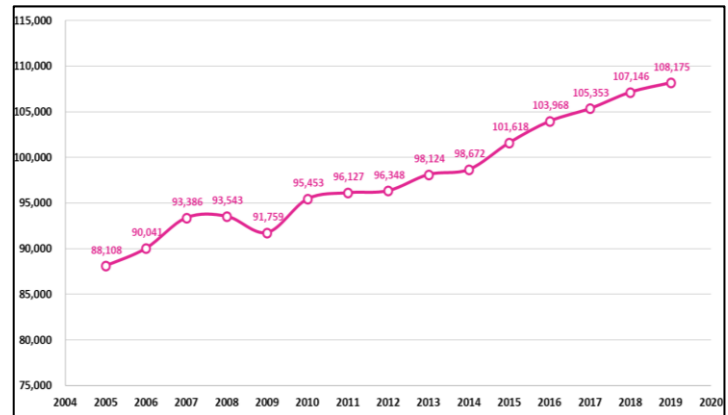


Figure ES-1 Historical Population for the City of Greeley

The 2020 Non-Potable Water System Master Plan (NPMP) is intended to plan for infrastructure growth and develop a capital improvement plan (CIP) for the City's non-potable (NP) irrigation system. The CIP plan will help the City plan for future development and costs both in the short-term and long-term. Continuing to grow and improve the NP system works in tandem with other water conservation efforts to decrease the total potable demand of the City as it experiences ongoing growth through buildout in a semi-arid environment.

ES.1 Greeley Master Plan Integration

To address existing and future system needs, the City developed their 2004 Non-Potable Water Master Plan to forecast water resources and infrastructure needs. The NPMP update occurred concurrently with updates to both the City's Sanitary Sewer Master Plan (SSMP) and the City's Water Transmission and Distribution Master Plan (WTDMP). This provided an ability to use consistent data for population and growth, common planning horizons and an integrated planning approach to CIP development. This approach to integrated master planning provides the City with a defensible and coordinated CIP and allows for the scheduling of CIP projects in ways that minimize the impacts to citizens.

Figure ES-2 illustrates the critical points of coordination between the three master plans.

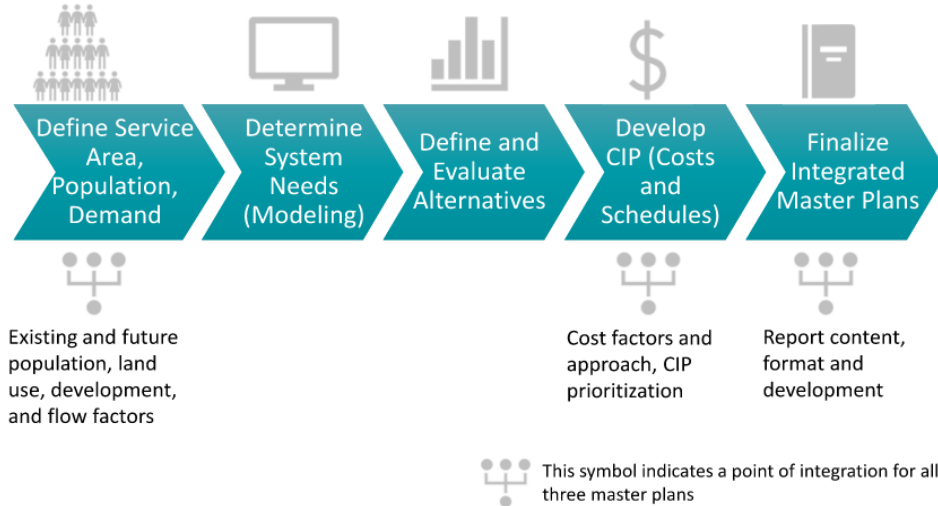


Figure ES-2 Master Plan Approach and Integration with Other Master Plans

ES.2 Existing System Information and Data Collection

The City's NP irrigation system is unique and advanced, particularly for raw water suppliers. In the current system, raw (untreated) water is supplied throughout the City via a system of agricultural ditches and gravity-fed pipes. The water typically flows from these ditches into an intermediate pond before entering a pumped distribution system, which includes 37 disconnected pump stations. This type of system is sometimes referred to as a hub-and-spoke layout. Through this system, the City is able to serve over 100 customers. Growing the NP system and offsetting more potable demands with NP irrigation water is a key goal for the City's water and sewer department.

City-provided data, including mapping, asset information, planning data, development plans, draft policy, and historic records, were used to inform the development of the NPMP. Additionally, a field inventory was conducted to supplement the City's existing geographic information system (GIS) database by geolocating key NP infrastructure, such as pumps, ponds, and valves. All of this information was compiled into a hydraulic model that accurately reflects the existing system. Existing demands were based on billing data and pumping records from July and August in 2018 and 2019 and were calibrated to available supervisory control and data acquisition (SCADA) data.

ES.3 Administrative Considerations

In addition to infrastructure construction and expansion efforts, certain administrative improvements can help the City continue to grow its NP system and act as a leader in potable water conservation and sustainable irrigation practices along the Front Range. The most significant change the City could make to promote NP irrigation would be implement and enforce the revised NP policy, included in **Appendix K**.

Historically, comprehensive data collection has been difficult for NP systems nationwide. Additional studies or data collection, along with more standardized record keeping practices, can

help the City keep track of the overall system. This can include enforcing standards related to construction record drawings, developing and maintaining an internal record-keeping system, creating a plan for regular updates to the GIS database, and/or implementing a computerized maintenance management system (CMMS) for NP infrastructure. Installing SCADA systems at new or rebuilt pump stations can also help with data collection and control.

ES.4 Service Area, Population, and Demand Projections

The City's Long-Range Expected Growth Area (LREGA) is the area where it plans to provide water and sewer services. The future population, and resulting demands, that were distributed over the LREGA for each planning horizon used the "middle" projection from the *City of Greeley Population and Water Demand Projections* (BBC Research & Consulting 2018), referred to as the BBC report, as shown in **Figure ES-3**. Because the 2075 projection does not represent the buildout year for the City within the LREGA boundary, a buildout population was extrapolated using planning data and factors.

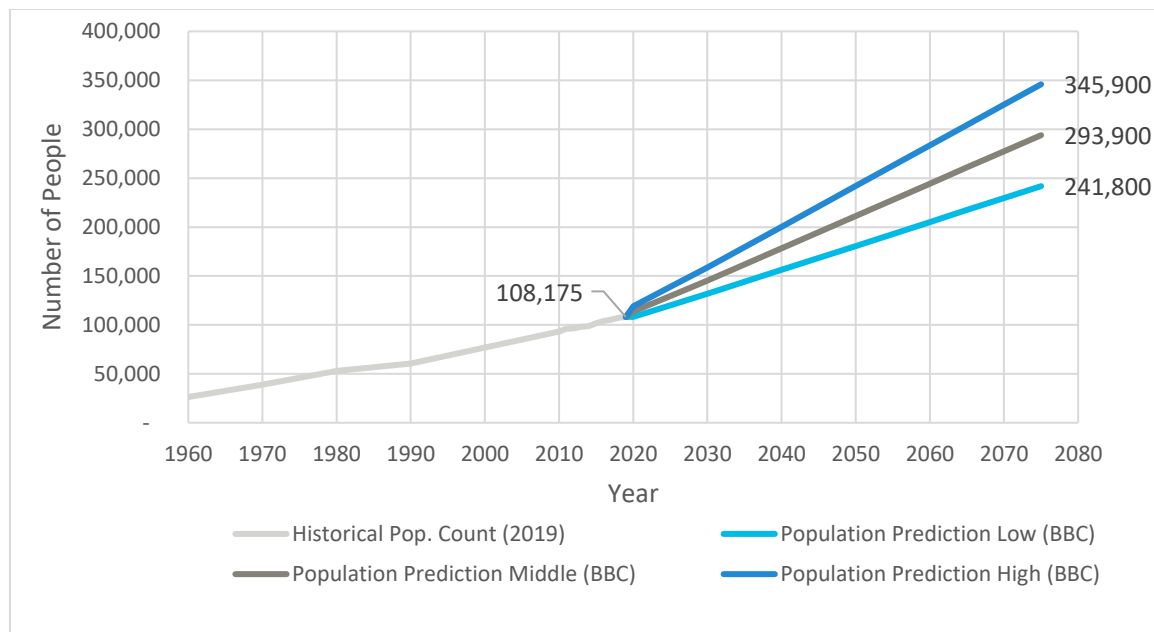


Figure ES-3 Historical and Projected Population

Future NP demand comes from two places: 1) undeveloped land that will use NP irrigation when it develops, and 2) existing areas that may switch from potable to NP irrigation, which are referred to as "conversion areas." Undeveloped land was identified and categorized by land use as part of the WTDMP and SSMP; these land use designations were used to predict NP demand in these areas. Conversion areas were based on the City's knowledge of potential customers; conversion areas are only potential areas that may benefit from NP irrigation but are currently not required to convert.

A set of flow factors were developed that show the expected demand per acre of a certain land use category, or customer type. There are flow factors for irrigated land (defined as the actual acreage of land that is irrigated on a given lot) and bulk land (defined as the total acreage of a

given parcel, including impervious areas). However, just because an area could use NP irrigation, it does not guarantee that it will. To account for this, an adoption rate was applied to each flow factor, which designated the amount of that land that is expected to actually use NP irrigation. The adoption rates were coordinated with the BBC report. It is therefore recommended to use this NPMP for infrastructure planning, and the BBC report for all water resources planning. The total demand projected for both the potable and NP water systems is shown by planning horizon in **Table ES-1**.

Table ES-1 Peak Month Demand by Planning Horizon

Planning Horizon	Total Water Demand (MGD)	Potable Water Demand (MGD)	Non-Potable Water Demand (MGD)
Existing	47.3	46.0	1.3
2025	51.8	49.4	2.4
2040	61.0	56.9	4.1
Buildout	106.3	93.5	12.8

While the NPMP is primarily focused on planning for infrastructure needs based on peak summer demands, it is also important for the City to plan for the total annual water demands through buildout. Water conservation methods, such as improved landscaping practices and the encouragement and adoption of NP water for irrigation, may help reduce the City's annual water demands. The BBC report focused on developing three alternative scenarios for annual water demands. The total annual demands developed for the WTDMP under the NP offsets demand scenario at buildout are captured in **Table ES-2**.

Table ES-2 NPMP Annual Demand Projections at Buildout

Demand	Total Water Demand (AFY) ²	Potable Water Demand (AFY)	NP Water Demand (AFY)
Existing	30,500	28,600	1,900
Future Demands	33,500	28,300	5,200
New I-H Users (6)	10,300	10,300	0
Total	74,300	67,200	7,100

¹ Potable demand shown in this table is for the NP offsets demand scenario.

² AFY = acre-feet per year

ES.5 Model Evaluation and Infrastructure Planning

The existing and future NP system was analyzed using both a hydraulic model (InfoWater) and various desktop analyses that used existing and projected future demands against the system requirements, as outlined in the City's Design Criteria and Construction Specifications, 2008 (City's Specifications). These requirements are summarized in **Table ES-3**.

Table ES-3 System Evaluation Criteria

Metric	Evaluation Criteria	Comments
Piping		
Pressure	70-100 pounds per square inch (psi)	
Velocity	< 5 feet per second (fps)	
Headloss	< 10 ft / 1,000 ft	
Minimum Main Size	8 inches	Not specified in the City's Specifications, City preference for future.
Maximum Inlet Pipe Headloss	6 inches	Not specified in the City's Specifications, but generally considered to be good practice.
Pumping		
Pumping Capacity	120% of peak hour	
Irrigation Window Assumed	10 hours / day	Not specified in the City's Specifications. For irrigation-only pumps, does not apply to transfer pumps.
Pump Station Layout	No standby pump, however low flow pump required	
Ponds		
Storage Volume	4 times peak day + losses	
Demands		
Daily Irrigation Application Rate	24 gallons per minute per acre (gpm/acre)	Peak season metric used in the design of irrigation systems per the City's Specifications. This value is appropriate for areas where the exact irrigated acreage is known but is not appropriate for planning-level estimates of bulk undeveloped land.

Table ES-4 summarizes the existing infrastructure and identified deficiencies by buildout. Typical deficiencies include a pump station being undersized by buildout, undersized inlet or outlet piping, or undersized taps.

Table ES-4 Summary of Existing System Analysis

Service Area	Pump Station	Existing Capacity (gpm)	Existing Peak Hour Demand (gpm)	Buildout Flow – Peak Hour (gpm)	Comments and Identified Deficiencies
Balsam Park	N/A	290	51	51	No deficiencies were identified for this pump station.
Bella Romero Elementary	N/A	330	109	109	No deficiencies were identified for this pump station.
Bittersweet Park	N/A	1,000	854	1,160	Small diameter pipes may be producing high headloss; limited data is available on pipe sizes. Bringing on all potential conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each conversion area is brought on to ensure there is still sufficient capacity.

Executive Summary

Service Area	Pump Station	Existing Capacity (gpm)	Existing Peak Hour Demand (gpm)	Buildout Flow – Peak Hour (gpm)	Comments and Identified Deficiencies
Boomerang	Boomerang North	1,500	769	769	No deficiencies were identified for this pump station.
	Boomerang South	1,500	694	0	This system is being replaced by the Boomerang Regional Pump Station.
	Boomerang Transfer	1,800	951	621	Some of the Boomerang transfer lines are undersized; this issue will be resolved by the construction of the Boomerang Regional Pump Station.
	<i>Boomerang Regional Pump Station</i>	<i>3,260</i>	<i>N/A</i>	<i>2,716</i>	<i>This new pump station is part of a larger redevelopment project and will replace the existing Boomerang South pump station. This pump station is identified as a CIP project.</i>
	North Ridge Transfer	1,800	936	936	No deficiencies were identified for this pump station.
	North Ridge School	2,700	1,205	1,752	No deficiencies were identified for this pump station.
	Poudre River Ranch	175	205	205	The lines to Poudre River Ranch and the pump station do not meet hydraulic design criteria but do not appear to hinder system performance. While there are no recommended changes, additional demand should not be added to this area without upsizing.
Cottonwood Park	N/A	115	69	69	No deficiencies were identified for this pump station.
Delta Park	N/A	95	52	52	No deficiencies were identified for this pump station.
East Memorial	N/A	319	314	440	Bringing on all potential undeveloped and conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each new area is brought on to ensure there is still sufficient capacity.
Glenmere Park	N/A	180	135	304	The inlet may be undersized; inlet pipe size data was not available for this system. Bringing on all potential conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each conversion area is brought on to ensure there is still sufficient capacity.
Greeley West Park¹	N/A	2,000	72	861	No deficiencies were identified for this pump station.
Highland Hills Golf	N/A	2,001	1,792	1,792	No deficiencies were identified for this pump station.

Service Area	Pump Station	Existing Capacity (gpm)	Existing Peak Hour Demand (gpm)	Buildout Flow – Peak Hour (gpm)	Comments and Identified Deficiencies
Island Grove and Saddle Club	Island Grove West	600	605	605	No deficiencies were identified for this pump station.
	Island Grove East	700	401	401	No deficiencies were identified for this pump station.
	Saddle Club	300	72	138	No deficiencies were identified for this pump station.
Jackson Field Sports	N/A	400	258	317	No deficiencies were identified for this pump station.
Josephine Jones Park	N/A	115	106	161	Bringing on all potential conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each conversion area is brought on to ensure there is still sufficient capacity.
Linn Grove Cemetery	N/A	350	95	122	No deficiencies were identified for this pump station.
Luther Park	N/A	530	492	498	The small pipe diameter (4") at the outlet does not meet hydraulic design criteria; while this does not hinder system performance, it should be monitored as demands on the system increase to ensure the wet well is still able to receive sufficient water.
Madison Elementary and Houston Gardens	Houston Gardens	125	310	310	While this system appears to be operating over the pump design capacity, it does not hinder system performance, as this system is designed for low pressures.
	Madison Elementary	500	90	93	No deficiencies were identified for this pump station.
Monfort	N/A	2,400	1,423	1,745	The inlet is slightly undersized (10" diameter); while this does not hinder system performance, it should be monitored as demands on the system increase to ensure the wet well is still able to receive sufficient water.
Peakview Park	Mosier Hill	800	681	681	The pipes at Peakview Park have a small diameter (as low as 4") and do not meet hydraulic design criteria. Although this does not appear to significantly hinder system performance, the City may consider upsizing if other work is already being done in this area.
Promontory Park	Main	2,100	1,270	1,866	No deficiencies were identified for this pump station.
	Transfer	1,600	1,651	1,651	While this pump station sometimes operates over its design flowrate, it is not significant enough to warrant upsizing. If additional demands in this area increase transfer station operations, expanding the length of time the transfer station operates each day will likely maintain an acceptable flowrate.

Executive Summary

Service Area	Pump Station	Existing Capacity (gpm)	Existing Peak Hour Demand (gpm)	Buildout Flow – Peak Hour (gpm)	Comments and Identified Deficiencies
Ramseier	N/A	450	734	739	Additional evaluation of this site is needed as outlet pipe size and SCADA data were not available. While current modeling shows that the system is operating over the design head, the peaking factor may be lower than the system-wide diurnal curve, resulting in lower peak demands.
Sanborn Park	N/A	500	268	289	Small diameter lines may be causing high headloss; limited data is available on pipe sizes.
St. Michaels	N/A	1,120	1,121	1,167	This pump station may be undersized. Additional evaluation should be conducted to determine if demand management is effective and whether the pumps can be upsized without replacing the entire station.
Tech Center	N/A	N/A	N/A	N/A	This area is currently only served by a shoulder tap. A pump station is necessary to transition it to NP irrigation (future service area SA-14).
Youth Sports Center	Youth Sports	1,200	941	941	The inlet line does not meet hydraulic design criteria but does not appear to hinder system performance. This line should be evaluated as each new area is brought on to ensure there is still sufficient capacity.
	Twin Rivers Park	4,200	1,314	1,692	No deficiencies were identified for this pump station.

¹ Greeley West Park is planned for replacement before 2025. The values shown in the table represent the design for the new pump station.

Table ES-5 summarizes anticipated future infrastructure through buildout. It is important to note that the majority of future infrastructure will be built by development as the City grows. Future infrastructure is expected to continue using a hub-and-spoke methodology, where future parks are equipped with ponds and pump stations to serve as the hubs of future NP systems.

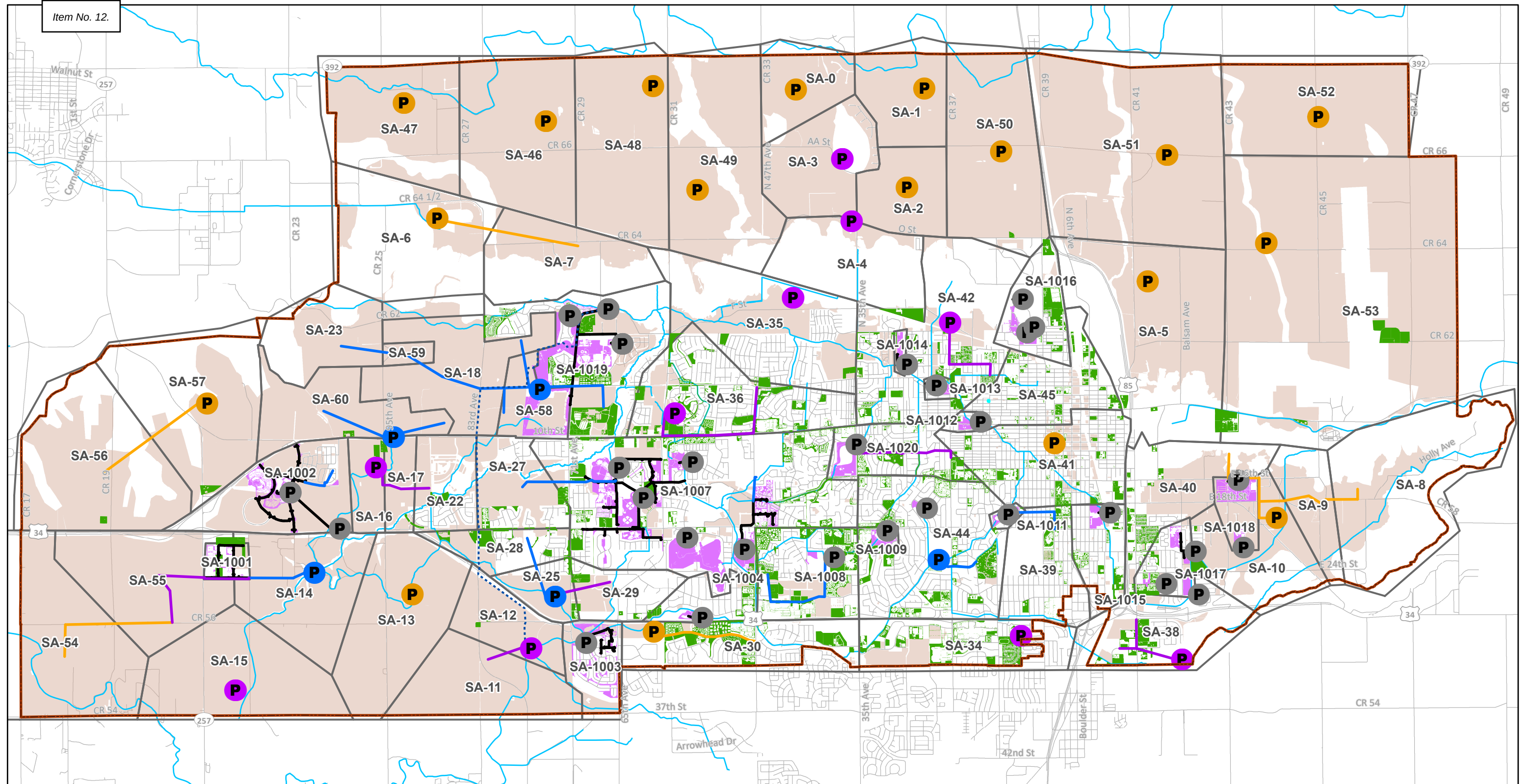
Table ES-5 Proposed Infrastructure by Planning Horizon

Planning Horizon	Pump Stations ¹	Storage in Ponds (AF) ²	New Pipeline (ft) by Diameter					Total
			8-inch	10-inch	12-inch	16-inch	30-inch	
Existing	37	Unknown	23,100	17,600	12,200	3,400 > 12"		90,000
2025	5	35.1	21,800	18,500	0	19,000	26,700	86,000
2040	10	28.1	26,900	11,500	0	8,200	0	46,600
Buildout	18	75.7	28,300	1,000	200	14,800	0	44,300
Total New	33	139.0	77,000	31,000	200	42,000	26,700	150,200

¹ All new pump stations are expected to have a pond.

² AF = acre-feet

Figure ES-4 shows both the existing and future system by planning horizon. Pump station locations and pipeline alignments are approximate and schematic.



Legend

 LREGA

 Existing NP Irrigated Areas

 Future NP Demand Parcels

 Greeley Ditch

 Existing Pump Station

 2025 Pump Station

 2040 Pump Station

 Buildout Pump Station

 Existing NP Pipes

 2025 Proposed NP Pipes

 2040 Proposed NP Pipes

 Buildout Proposed NP Pipes

 Upper Equalizer Project

 Conversion Areas

 Service Areas



NP System by Planning Horizon

Figure ES-4

Greeley Non-Potable Water System Master Plan

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ES.6 Capital Improvement Plan Projects and Schedule

The opinion of probable construction cost (OPCC) is the anticipated bid cost of a capital project. The project CIP costs include the OPCC and project implementation costs, such as planning and design, administration, and construction management. Assumptions made during CIP development can add to the variability of final bid project costs when compared to the planning level costs. The assumptions are necessary to capture the costs for project elements that cannot be defined at a planning level. Project costs were developed using modeled pipeline quantity estimates and data, then multiplied by unit cost estimates. During design development, the more specific data will be used to inform the design and the resulting project cost estimate. **Table ES-6** provides a breakdown of the different costing factor assumptions used for project implementation and contingency.

Table ES-6 Costing Factors for Construction Bid and Total CIP Project Costs

Category	Item	Costing Factor
Construction Bid Cost (includes infrastructure and contractor overhead, profit, bonds, and insurance)	Erosion Control/Stormwater Pollution Prevention ¹	2%
	Mobilization and Demobilization ¹	5%
	Contingency ²	35%
Project Implementation ³	Feasibility and Site Studies	9% for OPCC ≤ \$1 million 6% for OPCC of \$1 million to \$10 million 5% for OPCC > \$10 million
	Preliminary and Final Design	9% for OPCC ≤ \$1 million 6% for OPCC of \$1M to \$10 million 5% for OPCC > \$10 million
	Engineering Services During Construction	5%
Additional Project-Related Costs ³	Outside Construction Management - not used if OPCC is < \$1M	5%
	Outside Project Management - not used if OPCC value is < \$1M	3%

¹ Construction costing factors for erosion control/stormwater pollution prevention, mobilization, and demobilization are added to the subtotal of unit cost items.

² Contingency is 35% of the subtotal of the unit cost items and contractor born costs determined by costing factors.

³ Project implementation and additional project-related cost categories are determined as a percentage of the construction cost and part of the total CIP project costs.

ES.6.1 Identified CIP Projects

Table ES-7 summarizes the anticipated capital projects through the 5-year and 20-year planning horizons. Costs for some projects are shared proportionally across the City's water and sewer department, the City's parks department, and with development entities. The split shown in **Table ES-7** has been calculated from the anticipated total demands at buildout that each of these parties is responsible for. For each project these costs and splits will need to be refined during the development plan review process.

Executive Summary

Table ES-7 Summary of CIP Projects

Projects	Funding Source ¹	Planning Start Year ²	Design Start Year ²	Construction Start Year ²	Total Cost ³	City of Greeley Water/Sewer	City of Greeley Parks	Development
5-Year Planning Horizon								
SA-44 Centennial Park	Service Expansion	W/S, Parks, Dev	2021	2022	\$5,030,000	\$3,488,100	\$1,379,300	\$162,600
Boomerang Regional Pump Station	Service Expansion	W/S, Parks, Dev	2021	2022	\$6,920,000	\$221,300	\$694,000	\$6,004,700
Boomerang Regional Phase 2	Service Expansion	W/S, Parks, Dev	2021	2022	\$2,390,000	\$76,400	\$239,700	\$2,073,900
Greeley West PS Replace	Service Expansion	W/S, Dev	2022	2023	\$7,470,000	\$6,161,400	-	\$1,308,600
Upper Equalizer Project	Shoulder Season Extension	W/S	2023	2024	\$25,620,000	\$25,620,000	-	-
SA-14 Tech Center Supply	Service Expansion	W/S, Dev	2025	2026	\$5,930,000	\$17,100	-	\$5,912,900
Promontory Park Expansion	Service Expansion	Development	2025	2026	\$720,000	-	-	\$720,000
Monfort Expansion	Service Expansion	W/S, Parks, Dev	2025	2026	\$500,000	\$245,300	\$76,000	\$178,700
Twin Rivers Expansion	Service Expansion	W/S, Parks, Dev	2025	2026	\$2,390,000	\$1,172,400	\$363,300	\$854,300
SA-38 1st Ave Pond	Service Expansion	W/S, Dev	2025	2026	\$3,590,000	\$2,881,600	-	\$708,400
SA-25 Westgate Regional Pump Station	Service Expansion	W/S, Parks	2026	2027	\$2,670,000	\$2,038,415	\$631,585	-
SA-25 Westgate Regional Phase 1	Service Expansion	Dev	2026	2027	\$1,160,000	-	-	\$1,160,000
SA-60 Lake Bluffs	Service Expansion	W/S, Dev	2026	2027	\$6,050,000	\$57,000	-	\$5,993,000
5-Year Subtotal					\$70,440,000	\$41,979,015	\$3,383,885	\$25,077,100
20-Year Planning Horizon								
SA-34 30th St/17th Ave	Service Expansion	W/S, Parks, Dev	2028	2029	\$2,880,000	\$1,932,500	\$281,200	\$666,300
Boomerang Regional Phase 3	Service Expansion	W/S, Parks, Dev	2029	2030	\$8,000,000	\$255,900	\$802,300	\$6,941,800
SA-4 35th Ave/O St	Service Expansion	W/S, Dev	2029	2030	\$1,170,000	\$262,400	-	\$907,600
SA-3 35th Ave/AA St	Service Expansion	Development	2030	2031	\$2,190,000	-	-	\$2,190,000
Bittersweet Park Expansion	Service Expansion	W/S, Parks, Dev	2030	2031	\$3,160,000	\$2,475,181	\$684,819	-
SA-35 44th Ave/F St	Service Expansion	W/S, Parks, Dev	2031	2032	\$2,580,000	\$166,000	\$658,300	\$1,755,700
SA-36 59th Ave/10th St	Service Expansion	W/S, Parks, Dev	2032	2033	\$8,190,000	\$3,810,800	\$2,569,500	\$1,809,700
SA-16 95th Ave/16th St	Service Expansion	W/S, Dev	2035	2036	\$5,260,000	\$205,300	\$610,300	\$4,444,400
SA-14 Tech Center Expansion	Service Expansion	W/S, Parks, Dev	2036	2037	\$3,460,000	\$10,000	-	\$3,450,000

Projects	Funding Source ¹	Planning Start Year ²	Design Start Year ²	Construction Start Year ²	Total Cost ³	City of Greeley Water/Sewer	City of Greeley Parks	Development
SA-15 37th St/SH-257 Pump Station	Service Expansion	W/S, Dev	2037	2038	\$3,880,000	-	-	\$3,880,000
SA-12 Cobblestone Regional	Service Expansion	Development	2038	2039	\$4,260,000	\$48,500	-	\$4,211,500
Glenmere Park Expansion	Service Expansion	W/S, Parks, Dev	2038	2039	\$2,200,000	\$1,427,916	\$603,228	\$168,856
SA-25 Westgate Regional Phase 2	Service Expansion	W/S, Dev	2039	2040	\$1,220,000	\$857,400	-	\$362,600
SA-42 23rd Ave/NW C St	Service Expansion	W/S, Parks, Dev	2040	2041	\$6,030,000	\$2,513,300	\$1,421,100	\$2,095,600
20-Year Subtotal					\$54,480,000	\$13,965,198	\$7,630,746	\$32,884,056
Total					\$124,920,000	\$55,944,212	\$11,014,631	\$57,961,156

August 2020 dollars as adjusted by Engineering News Record Cost Construction Index (ENR-CCI) were used for project OPCCs, total costs, and project fund allocations

¹ W/S: City of Greeley Water and Sewer Department, Parks: City of Greeley Parks Department, Dev: Development

² Project planning, design, and construction years are subject to change pending future project updates, development of projects, and/or schedule changes.

³ OPCC and total costs per project are subject to change pending future project updates, development of projects, and/or schedule changes.

ES.6.2 CIP Implementation Schedule

The CIP schedule implementation process considered several factors that influence a project schedule in addition to the hydraulic evaluation. The City provided the Water and Sewer 10-year CIP, public works CIP, and parks CIP to integrate with projects identified in the WTDMP for developing CIP implementation schedules.

The growth-driven projects will be funded by either the City or developer (or combination), depending on the project driver. Based on the 5- and 20-year CIP schedule, annual funding requirements for City NP projects from 2021 through 2040 are shown in **Figure ES-5**.

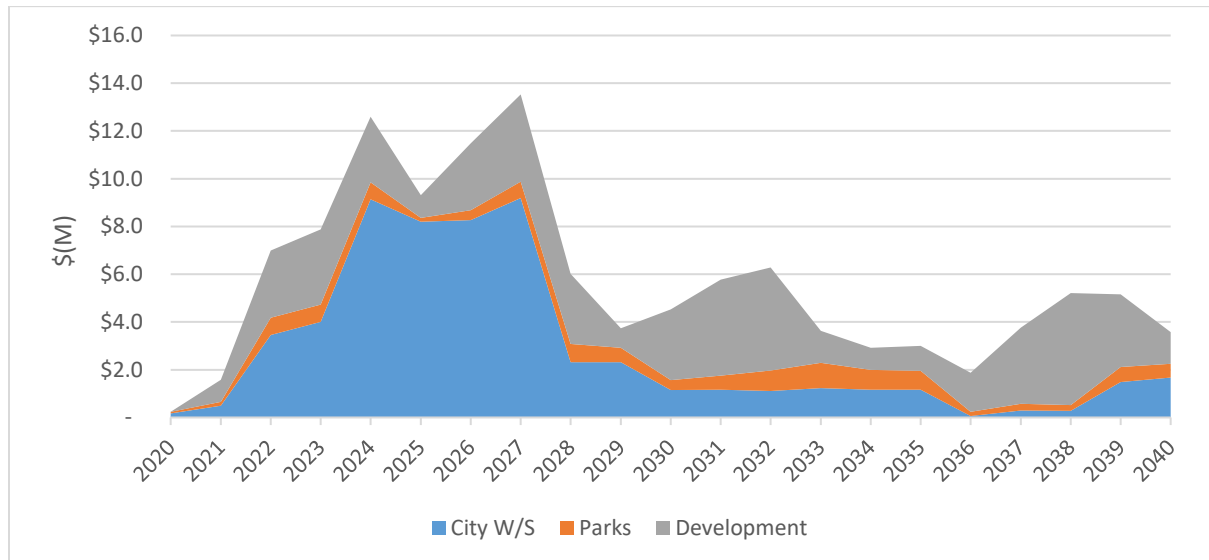


Figure ES-5 Annual NP Funding Projections by Fund

CIP costs are August 2020 dollars from ENR-CCI.

ES.7 Conservatism and Uncertainty in Planning

During master plan development, assumptions were made for existing and future conditions. These included population distribution and flow factors to develop water demand projections for growth and development under future conditions, along with considerations for extreme seasonal conditions that would emphasize higher demands while considering future water conservation planning to help reduce these impacts. The master planning assumptions trended toward conservative values to ensure the potable system was not undersized, which may result in the predicted demands being higher than actual. This NPMP analyzes the existing system and defines future needs, which should be validated by the City as new data becomes available.

The NP water system model, in conjunction with its potable water system companion model, is a tool for analyzing the existing system and defining future capacity needs. Detailed planning and timing of development will inevitably vary from the best planning projections and will result in the need to review areas where the model indicates system deficiencies.

Additional uncertainty can occur during the development of the CIP and, as a result, conservative planning assumptions are used. Planning level cost development considers the major categories

of capital projects but does not include the additional detail available during the preliminary and final design stages of projects. The CIP was developed based on anticipated growth, modeling results, and planning information and is subject to change if the planning information and forecasts shift over time. Prior to COVID-19, a global pandemic, cost inflation tools provided high confidence for predicting unit prices within a given year. However, during and after COVID-19, these cost inflation tools may not be as accurate.

ES.8 Key Findings and Recommendations

The findings and recommendations summarized in this section have been drawn from the planning and evaluation sections of this NPMP. The recommendations identify system needs, actions, and capital improvements through the buildout planning horizon; however, the actual implementation time frame will depend on actual growth rates, order of development, and the level of available capital funding. Additionally, the actual scope and implementation of these recommendations may vary with detailed planning and design.

ES.8.1 Key Findings

Key findings identified as part of the NPMP include the following:

- Discussions with other Front Range stakeholders showed that the City has a unique and advanced NP irrigation system, particularly for raw water suppliers.
- Historically, comprehensive data collection has been difficult for the NP system. Additional studies or data collection, along with more standardized record keeping practices, can help the City keep track of the overall system. Record keeping practices could include recording ditch laterals in GIS, updating and enforcing construction drawing standards, creating a system for regularly updating the NP GIS database, and/or installing SCADA systems.
- Review of historical demands showed that NP usage varied significantly on an annual basis. In particular, demand dropped significantly when parks began the transition process to improved control systems. Future NP demands are expected to come from two sources: 1) undeveloped lands that will use NP irrigation when they develop, and 2) existing areas that will convert to NP irrigation, defined as conversion areas. NP peak season demands are expected to increase by 1.1 million gallons per day (MGD) by 2025, 2.8 MGD by 2040, and 11.5 MGD by buildout. NP adoption is strongly influenced by policy, which is a key step for promoting conservation.
- Some of the existing systems were identified as needing improvement, but no critical deficiencies were identified. These include areas that are expected to have undersized inlet lines, pipes, taps, or pumps by buildout.
- New recommended CIP projects were identified. These primarily consist of new pump stations or expansions of existing pipe systems to serve new areas and customers. New pump stations will be primarily constructed by developers. It is estimated that the system will need 4 new pump stations by 2025, 12 new pump stations between 2025 and 2040, and 19 new pump stations between 2040 and buildout.

ES.8.2 Recommendations

The recommendations for the NPMP include the following:

- Implement and enforce an NP policy to promote and expand NP irrigation practices. It is recommended for this policy to mandate that new developments and redevelopments use NP irrigation and for the policy to generally encourage the growth of the NP system.
- Implement improved operational practices at existing pump stations as it becomes necessary. Also implement improved operational practices during other construction, such as rehabilitating a park irrigation system. Improved operational practices can include items such as increasing the watering window to reduce peak hour demands by decreasing the size of irrigation zones and implementing SCADA where not currently installed. It is recommended for customers to use a watering window of 10 hours a day, where possible, and to use the best landscaping practices included in **Appendix F**.
- Create new standards for data collection and record keeping. This can include enforcing standards related to construction record drawings, developing and maintaining an internal record-keeping system, creating a plan for regularly updating the GIS database, and/or implementing a CMMS for NP infrastructure. It is also recommended that the City conducts a study of ditches and laterals throughout the LREGA and requires developers to include this data in their plans.
- Implement and enforce requirements for the installation of SCADA systems at new or rebuilt pump stations. The City may consider including SCADA requirements in the City's Specifications.
- Continue monitoring and recording demands and pump station flows to identify major changes in operations that may impact system performance.
- Evaluate the St. Michaels pump station to determine whether additional construction is needed at this site to meet higher demands. This evaluation should determine whether demand management could be an effective solution, and whether the pumps can be upsized without replacing the entire pump station.
- Continue maintenance of the InfoWater model. This can include adding new pipes, deleting abandoned pipes, tracking open and closed valves, and reflecting operational changes as the system continues to expand.
- Coordinate this NPMP with other relevant planning documents, such as the WTDMP, SSMP, *Imagine Greeley Comprehensive Plan*, and BBC report. It is recommended to use this NPMP as a guide for infrastructure planning, and to use the BBC report as a guide for water resources planning.
- Continue building the NP system through a hub-and-spoke methodology, as defined earlier. Consider looping or connecting systems where systems are on similar hydraulic grade lines, as looping would improve operational flexibility.

- In areas with limited or interim development, require the construction of NP infrastructure, such as a piped irrigation system, even if a pump station will not be constructed until a later time.
- New pipe and pump station layouts are conceptual in nature and are primarily intended to show hydraulic feasibility for master planning purposes. Conduct a detailed evaluation of pipe alignment and size as well as pump station location and sizing as projects move into design and implementation stages when there is more certainty of development and design criteria. The InfoWater model, if regularly maintained, can be used as a tool to support future planning decisions.
- Complete the capital improvements recommended in **Section 6**, prioritizing the 5-year CIP recommended projects. Coordinate closely with the City's parks department, other utilities, and developers to regularly update the scheduling of these projects. The City should consider using the InfoWater model as a tool to inform developer plans while coordinating with them.
- Update the NPMP every 5 years, including reevaluating demand and population projections every 5 to 10 years. Planning assumptions made for the NP system in the next 20 years and beyond are subject to change with time.

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Section 1

Background Information and Project Purpose

Reliance on NP irrigation and improved irrigation practices is a key part of the City's water conservation plan. The NPMP covered in this report will help the City provide untreated irrigation water to large turf areas, which will help preserve potable water for other uses, reduce treatment costs for the City's water and sewer department, and lower irrigation costs for customers. This master plan update documents the approach and assumptions used to evaluate the system while defining the capital improvements needed for the long-range CIP for the NP system through the year 2040. To plan for the future NP needs of the City, background information was first collected on the historic and current NP water system and is described further below.

1.1 Master Planning Process and Organization

The NPMP was developed in conjunction with the City's SSMP and WTDMP. The City integrated the three master plans, creating a consistent approach to determining existing and future population and water demands and to defining capital projects and costs. A schematic of the City's integrated water system for water, wastewater, and non-potable water is shown in **Figure 1-1**.



Figure 1-1 Greeley's Integrated Water System

The future population projections and associated water demand, planning horizons, and approach to capital and project cost development are consistent between the three master plans, as shown in **Figure 1-2**. This figure also shows the critical points of coordination between the three master plans.

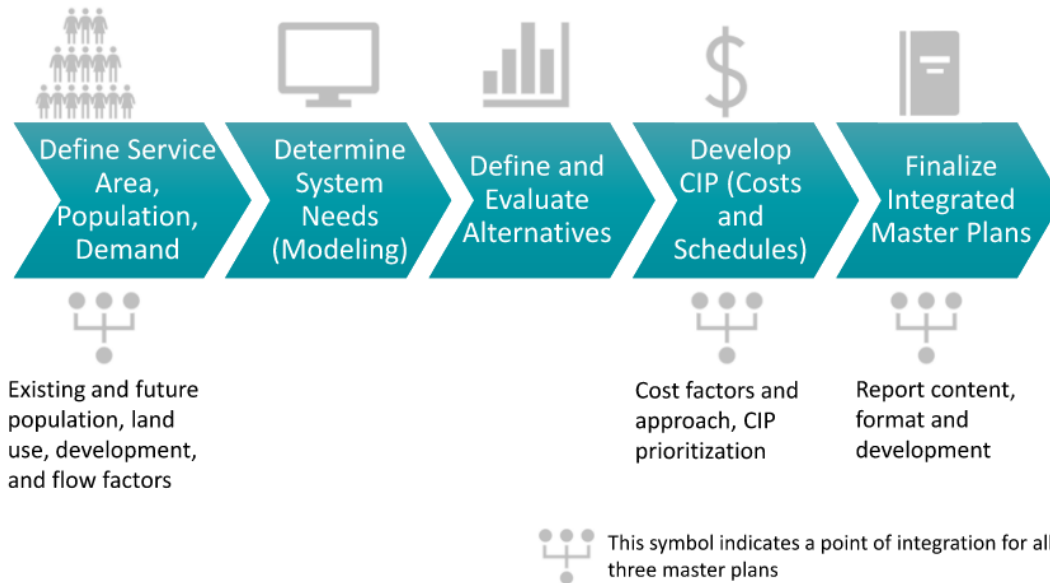


Figure 1-2 Master Plan Approach and Integration with other Master Plans

1.1.1 Report Organization

The NPMP is organized into the following sections:

- Section 1 – Background Information and Project Purpose
- Section 2 – Administrative Considerations
- Section 3 – Demand and Economics
- Section 4 – Development of the Non-Potable System Model
- Section 5 – Existing and Future System Model Evaluation
- Section 6 – Capital Improvement Plan
- Section 7 – Findings and Recommendations

1.2 Review of Existing Data and System

Before any other data gathering was initiated, information on the existing system was collected from the City files. This information primarily came from the two former NPMPs (dated 2002 and 2004), which provided overarching views of the City's goals, strategies, and specific plans for the NP system. These plans analyzed the then current and potential sources of supply and demand, established design and costing criteria for future projects, and examined options for the use of surplus NP water.

Part of the review of the existing system involved examining the records of existing infrastructure and construction projects. This data was checked by field visits and incorporated into the GIS. A new NP tagging and naming convention based on the City's standard naming scheme was established and will be used to describe the existing and future infrastructure. This naming system is included in **Appendix B**.

In general, the City's NP system operates using a "hub-and-spoke" approach, where a pump station (the hub) serves the irrigated areas (the spokes) without any connections to other pump stations or NP systems. Each of the individual systems has a unique setup, as described in **Section 4.1**. A typical NP system is shown in **Figure 1-3**. However, each individual system may differ in whether it pulls from a ditch or well, whether there is an intermediary pond, and how many pumps it has. Detailed descriptions of each system are included in **Table 4-1** and a map of all pump stations is included in **Figure 1-4**.

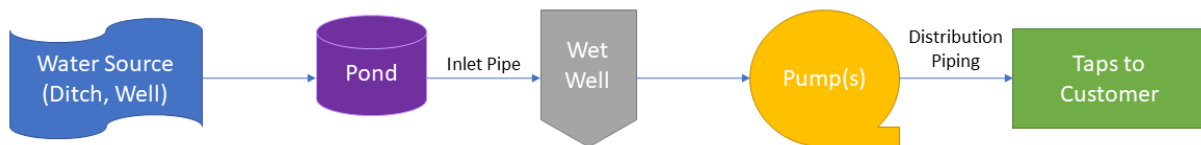
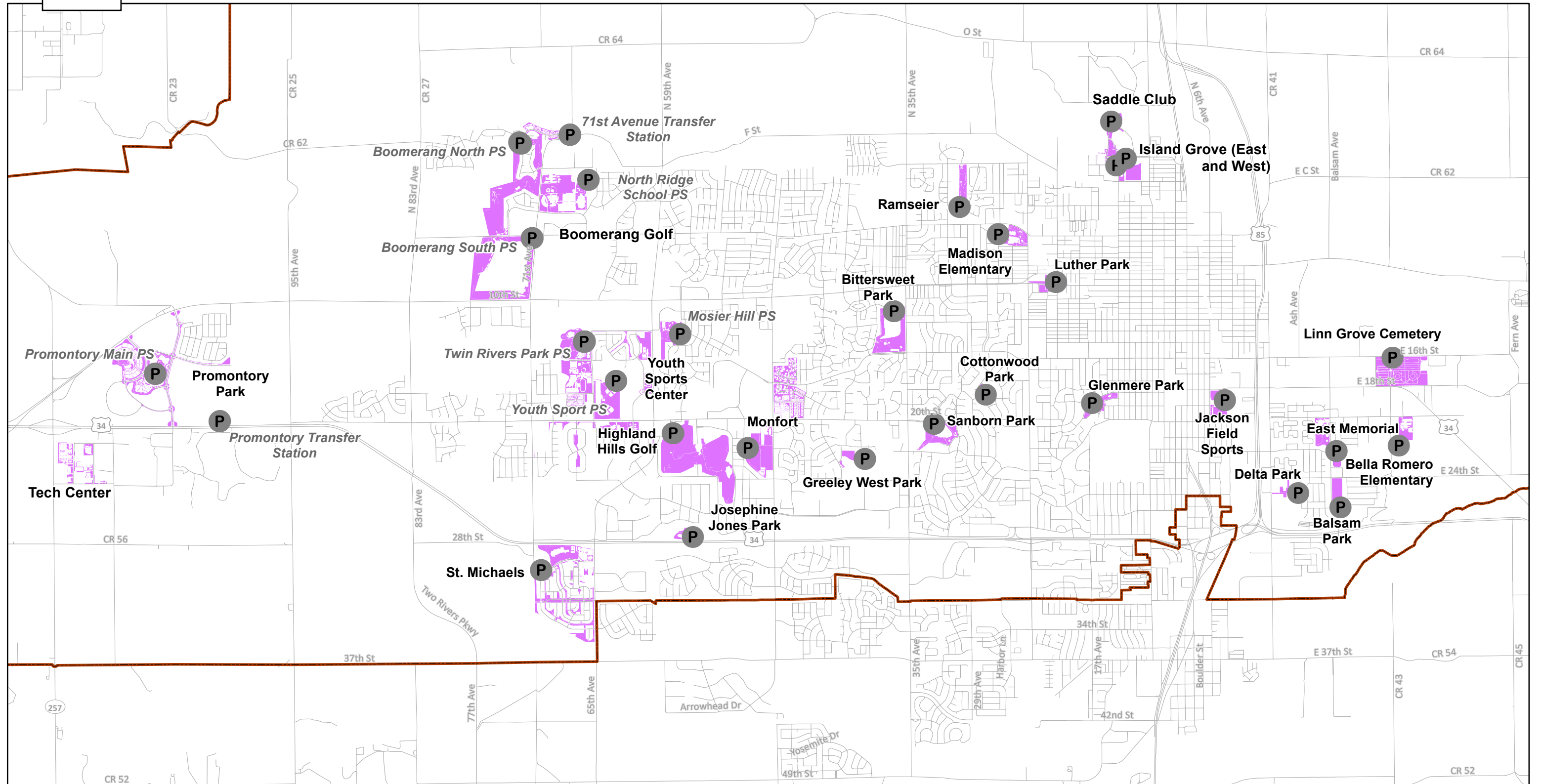


Figure 1-3 Typical NP System Schematic

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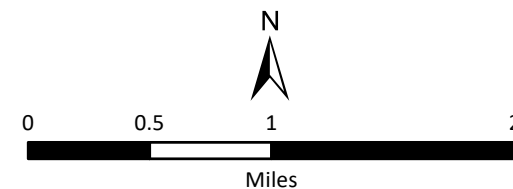


Legend

-  LREGA
-  Pump Station
-  Existing NP Irrigated Areas



May 17, 2021



Existing Non-Potable Service Areas

Figure 1-4

Greeley Non-Potable Water
System Master Plan

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1.3 Field Visit Data

Field data was collected at each site and locations and elevations of features were recorded using a global positioning system (GPS) unit (Trimble Geo 7x). The GPS unit is accurate within a meter of the exact location. Along with the spatial data, specific operational information for each component was also recorded, as well as any of the operators' background knowledge on the specific item. Major system components visited included pump stations, meters, valves, wells, head gates, and storage ponds. For the pump stations, information that was collected included the number of pumps, the model numbers of the pumps and motors, the operating speed, the visual condition of the equipment, and the condition of the pump house. The unique meter number for each meter was also recorded, along with the transmitter number and diameter of the meter piping. The location and elevation of each valve was taken, and a note was made if the valve was equipped with a powered actuator. Notes were taken detailing the control logic for all actuating valves inventoried. The breakdown of components can be found in **Appendix A**. This information was compiled into a single database spreadsheet and used to update the NP GIS database.

1.4 GIS Mapping and System Inventory

Previously existing GIS data contained spatial locations for both point and linear NP water infrastructure. The point data included wells, pump stations, meters and valves. NP lines, ditches and irrigation areas were all contained in the linear data. Within the attribute table of each shapefile, there is additional information corresponding to each individual component within that infrastructure category. This information is summarized in **Table 1-1**.

Table 1-1 Previously Existing GIS Information

Type of Information	Number of Features	Relevant Attributes
Wells	51	Location, Type of well
NP pump stations	37	Names, Approximate addresses (incomplete)
NP meters	73	Customer number, Transmitter number, Meter number, Approximate addresses (incomplete)
Valves	383	Type of valve, R angle
NP irrigation areas	42	Name of well that supplies the area, Surface area
NP pipes	563	Length, Material, Installation year, Diameter
NP ditches	66	Name, Length, Above or below ground

Review of the GIS data with the operations team revealed that much of this information was either incomplete or out-of-date, especially the wells, ditches, and NP irrigation areas. The data from the field inventory was used for the wells, pump stations, and valves. The GIS data did not include a ponds shapefile; instead, information on ponds was included from the field data or historical documents and drawings. For the pump stations that were not included in the original GIS data, the data from the field inventory or historic documents was used. The NP GIS system should continue to be updated and maintained in the future. The NP pipelines are summarized by diameter in **Table 1-2**.

Table 1-2 Non-Potable Pipe Lengths from City GIS Data

Pipe Diameter (in)	Total Length (ft)
0 (Blank) ¹	4,296
1	17
2	4,022
3	739
4	5,114
6	19,515
8	23,094
10	17,616
12	12,238
14	706
15	370
18	2,106
20	140
24	49
Total	90,022

¹ Pipes with no diameter were reconciled as part of model connectivity updates, described in **Section 4.1.1**.

Review of the NP pipelines shapefile showed that the file was not fully representative of the current system. This shapefile was updated extensively to support model connectivity and an updated shapefile was provided to the City. The following assumptions and key fixes were used to support connectivity:

- Pipes that were within 3 feet of another feature, such as collected field data, were rerouted to connect through that point.
- Pipes without a diameter were assigned a diameter based on design drawings or the diameter of connected features, such as pumps or valves.
- Areas with other NP infrastructure, but no pipes, had pipes added based on design drawings, City operator knowledge, or typical layouts for NP pump stations.
- Two-inch lines were drawn from main lines to meters where relevant.
- Topology checks were used to reconcile pipes that were not connected to each other, identify duplicate features, etc.

Operations and Maintenance (O&M) data for each pump station, as available, was also reviewed. This included original constructions documents, O&M manuals (including pump curves), equipment details, photos of the site, and other historical information. Some of this data was outdated and reflected historic construction, not current conditions. The data provided also contained discrepancies and gaps, due to obsolete data mixed with current data. The data was further reviewed in team meetings to ensure that a comprehensive and accurate understanding of the system was being incorporated into the model.

Additionally, hourly SCADA data was used for the past five years (September 2015 to September 2020) to evaluate the accuracy of the model of the existing NP system and to create diurnal curves that reflect current system usage. SCADA data was not available for all sites. **Table 2-5** includes a list of available SCADA data collected by location.

1.5 Zoning and Land Use Information

Current and planned land use and zoning data in GIS format, along with maps of zoning and land use available through previous master plans, was used to map existing NP customers and irrigation areas, and to identify potential new customers, such as parks, golf courses, and cemeteries.

Additional sources of information included planned unit development reports, a revised version of Greeley's Comprehensive Plan map, as well as other information developed in conjunction with the City's planning department as a part of the water and sewer master plans that contained detailed land use information. This information was used to develop future potable water and sewer demands, which are the basis for the development of future NP demands.

Parks represent a crucial existing and future demand, so the 2016 Parks, Trails, and Open Lands Master Plan was used to address future park demands. This master plan provides information on current parks, as well as park service goals and potential locations for future parks. These details were used to establish park demands for the future planning scenarios.

Current potable water customers were evaluated to determine areas that would be suitable for conversion to NP irrigation. These areas, referred to as conversion areas, were provided on three shapefiles and two PDF maps that showed the names of many of the systems. Conversion areas are discussed in **Section 3** of this report.

The City's NP water system currently serves several areas of varying land use, which includes residential areas, golf courses, parks, and schools with a combined total irrigation area of 890 acres. The current irrigation areas, including areas that are irrigated by private systems, can be seen in **Figure 1-5**. Private systems were not addressed as part of the master plan, as the master plan focused solely on City-owned infrastructure.

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1.6 Review of Supply and Demand

To determine reasonable expectations for supply and demand projections, historic projections were examined. The BBC report was also considered for supply and demand projections. The BBC report projects the NP water demand for an assumed buildout year of 2065 under three scenarios: low, middle, and high. As noted in the report, the middle projection represents the most likely demand scenario. Notably, the middle scenario for total water consumption produces the highest NP consumption. The BBC report included total projected demand at five-year increments, as well as the likely adoption rates per customer type. The results of the NP water demand projections from the BBC report are summarized in **Figure 1-6**.

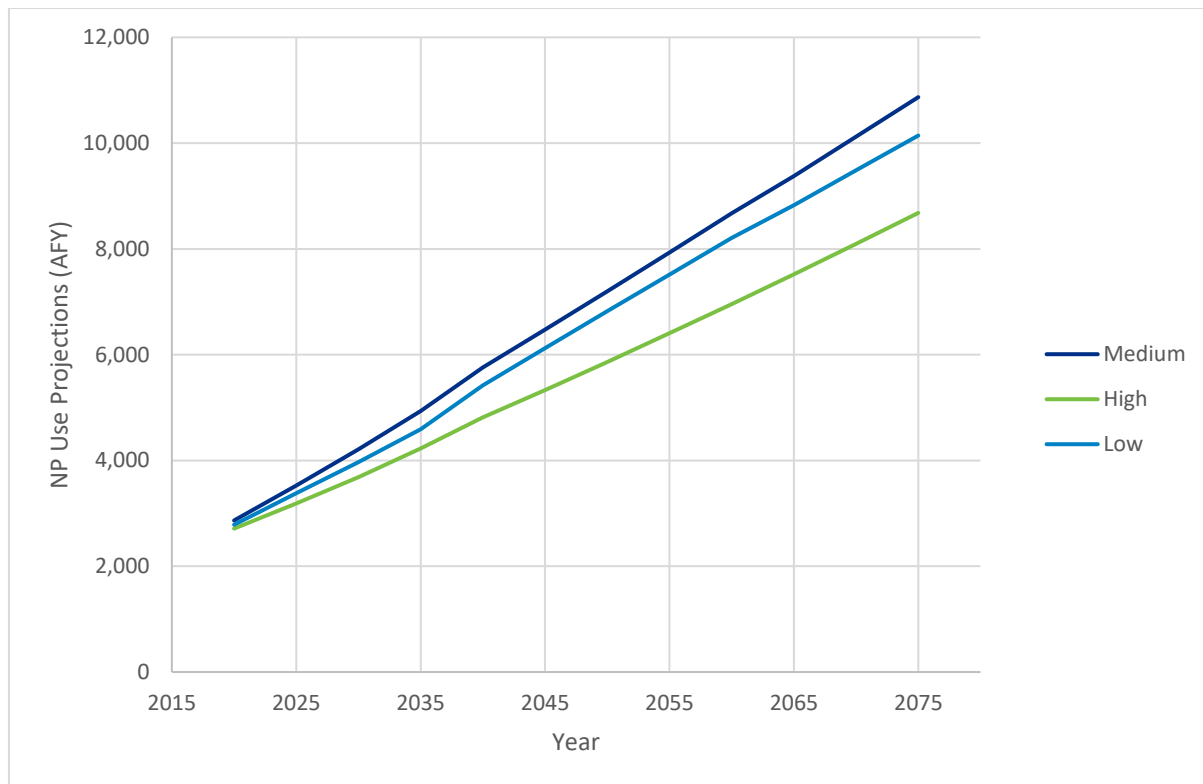


Figure 1-6 Non-Potable Use Projections (BBC Report, 2018)

To determine the actual NP water demand, the most recent water billing data was used. Billing data provided monthly demands from 2014 through 2019. The analysis of the provided data revealed a significant annual variation in demands, as shown in **Figure 1-7**. This annual variation could be due to changes in the City's irrigation control systems which significantly improved irrigation efficiency, especially in parks. As a result, only 2018 and 2019 billing data was used for the development of the models.

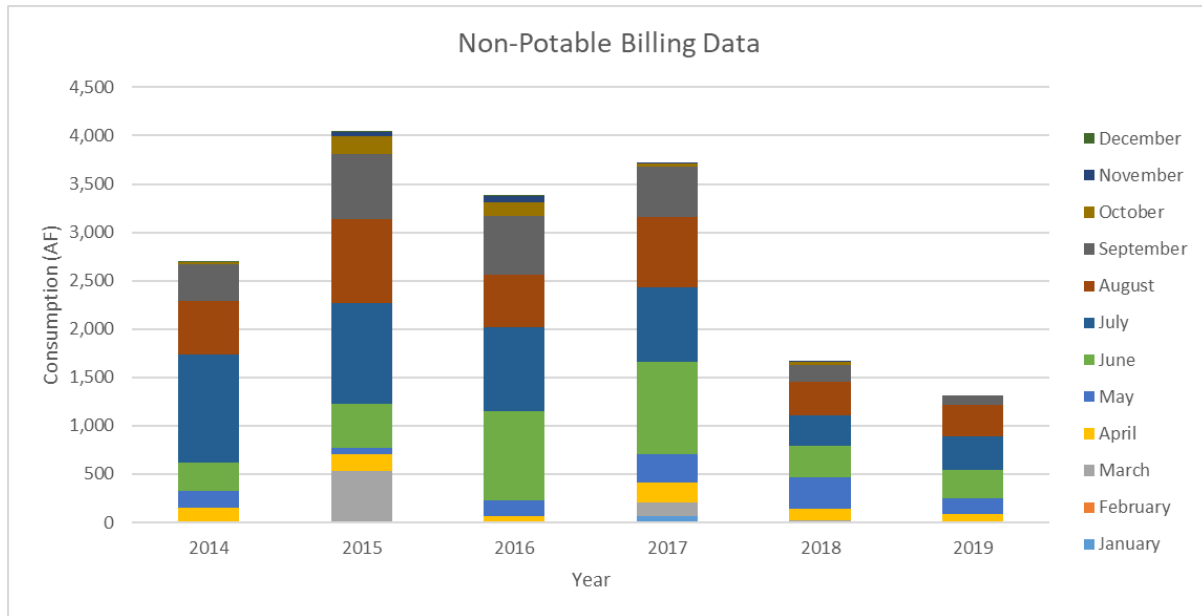


Figure 1-7 Non-Potable Demands (Billing Data)

The billing data was used to project NP demands through buildout. The demand that cannot be supplied by current NP infrastructure helped determine the necessary projects for the CIP. NP water demands were allocated with greater detail and are described further in **Section 3** of this report.

1.7 Costing

Data was collected for the pricing of CIP projects from several sources. This data was consistent across all three master plans. These sources included previous City bid tabs, City CIP databases (such as Greeley's CIP database for water, wastewater, and NP water projects), bid tabs from past CDM Smith projects along the Front Range and in Texas, as well as a consultant project cost estimator. Incorporating multiple data sources makes typical unit costs more robust. Analysis and selection of these line item unit costs are covered in **Section 6** of this report.

In the future, the City may consider mandating NP irrigation for new developments based on economic feasibility, and/or subsidizing NP infrastructure to make it economically feasible. Because of this, City policy could have a large impact on NP adoption. The City provided its draft policy, which was used as a basis for economic considerations. As of writing, the final policy has not been approved by the Water and Sewer Board. As a result, revisions to the draft policy may affect economic feasibility calculations. The final policy is attached in **Appendix K**.

1.8 Ongoing Projects

There are two ongoing projects considered in the NPMP: the Poudre Ponds Complex Project (Poudre Ponds) and the Upper Equalizer project. The information on both these projects is based on the 2016 City of Greeley Non-Potable Water Supply Upper Equalizer Infrastructure Feasibility Study. The Poudre Ponds project is also studied in greater depth in the 2021 Poudre Ponds

Reclamation and Restoration Improvements Project Mini Master Plan, which evaluated plans based on 2030 and 2065 demand scenarios.

The Poudre Ponds project seeks to expand an existing storage site by constructing a gravel pit pond and pump station on a newly acquired parcel. Project goals include improving water supply reliability, NP storage, and community assets via site enhancements for wildlife and recreation. This new pump station will convey 23 cubic feet per second (cfs) to the Greeley No. 3 Ditch or 27 cfs to the Poudre River, returning water back to its source as part of a water rights exchange.

The Upper Equalizer project seeks to expand an existing NP pump station, which currently provides irrigation to a golf course and high school. This project will transfer 31 cfs peak flow from the Greeley No. 3 Ditch to the Greeley-Loveland Irrigation Company (GLIC), which is 4 miles away, with about 200 feet in elevation gain. As 71st Avenue was paved since the writing of the feasibility report, the routing of the pipeline was changed to 83rd Avenue. The NPMP was coordinated with the ongoing design as available and the 31 cfs transfer was incorporated into the plan.

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Section 2

Administrative Considerations

In addition to the infrastructure construction and expansion, certain administrative improvements can help the City continue to grow its NP system and act as a leader in water conservation along the Front Range. This section describes recommendations related to policy, operations, monitoring, and data collection.

2.1 Stakeholder Engagement

Stakeholder engagement efforts were conducted with several local communities and municipalities in the Front Range to identify current system practices, user trends, planning recommendations, and economic considerations surrounding design and expansion of NP systems. These included the City of Westminster, Denver Water, the City of Evans, and the Town of Windsor. Through this process, it was discovered that the City's current NP system is more developed than many other surrounding raw-water suppliers.

Discussion topics during these meetings included factors for site selection, best practices for NP implementation, and potential challenges of NP use. Considerations for site selection include picking high acreage areas with a preference for larger customers, limitations based on pressure zones, economics (cost savings associated with cheaper irrigation water compared to potable), land use/zoning laws, and regulations regarding water reuse. Common best practices include the use of design standards to regulate construction, irrigating at night, use of subsidies to encourage implementation, and NP promotion through sustainability campaigns. Potential challenges with operating an NP system include the variability of supply of reuse water (raw water is less variable), water quality impacts on the distribution system and vegetation, additional education and focus on public perception, more training required for employees, and higher cost of treating NP water for communities that use potable reuse.

2.2 NP Policy Considerations

Modeling considerations and factors used for the hydraulic modeling of existing and future systems were developed with consideration of the City's current NP water supply policies. The City is currently working on drafting a policy related to NP adoption and standards. Policy-related decisions are a large driving force behind NP adoption, conversion, and expansion, and are a key part of the City's water resources conservation strategy. The NPMP is based on a draft version of the policy, and certain assumptions used throughout may be subject to change, depending on the final version. The following are key points to note from the draft policy and recommendations for the final policy:

- The final policy should mandate NP irrigation for new developments and redevelopments where technically and economically feasible. Mandating and enforcing NP irrigation will help promote sustainability for the potable water system and avoid unnecessary upsizing.

- The City should develop NP water rates based on a cost-of-service study to incentivize NP adoption by reducing the price of NP water compared to potable water.
- Growth should pay for growth. The policy should clarify how new developers participate in the construction of new NP infrastructure.
- Large users should be required to plan for at least an 8-hour watering window. The policy should clarify when this is required and should encourage users to use an even larger watering window, to reduce peak hour demands on NP infrastructure.
- The policy should require new developments to construct NP infrastructure, such as separate irrigation pipelines, even if an NP pump station will not be available until after construction is complete. Information should be included on when and how the City's water and sewer department will pay to upsize infrastructure to accommodate future demands.
- The City should develop an impact fee structure that encourages NP adoption and allows for City investment in upsizing the NP system to be repaid in the future.

2.3 Improved Operational Practices

The existing systems are operated efficiently and proactively. The pump stations are rebuilt on a timed cycle and maintenance is performed annually over the winter. The field inspection confirmed that the systems look and are reported to be well maintained and operated.

As the system expands in the future, some operational practices may need to be modified to expand with the system. Some improvements that would help minimize the operational needs of the future system may include:

- Improved SCADA control and monitoring. Generally, sites must be physically visited to monitor pond levels and check for operational issues. Improved SCADA could allow remote monitoring and automatic control of some processes allowing existing staff to operate additional sites. A suggested "default" SCADA system is listed in the next section.
- Implementing a CMMS to improve data and optimize maintenance activities. Adding NP infrastructure to an existing City CMMS will be considered in the future.
- The following systems have high peaking factors, or very high variability, which means the pump stations are limited by maximum flow but only operate for a short irrigation window. These systems could benefit from a longer watering window which would free up capacity for additional demands. Note that lengthening the water window in some cases may only require reprogramming the irrigation controller, but in many cases may require dividing the irrigation system into additional zones. Therefore, these modifications are likely best accomplished during major irrigation system maintenance or replacement. These systems include the following:
 - Mosier Hill (extremely varied)
 - Bittersweet Park

- Madison Elementary
- Saddle Club (extremely varied)
- Luther Park (extremely varied)
- Island Grove West
- Island Grove East
- Twin Rivers Park
- North Ridge School

2.4 Improved Monitoring Systems and Practices

The current NP system includes basic SCADA status communication. Each pump station is controlled by a vendor provided and programmed “island” programmable logic controller (PLC) that monitors pressure and flow. The PLC also monitors station health and protects the pumps from operating outside of safe ranges. Each station has a radio telemetry unit (RTU) that communicates limited status and data. **Table 2-1** summarizes the available data from each of the existing stations. Ultimately, it is recommended for the City to include SCADA for all existing and future pump stations, and eventually add ditch measurements and controls to the SCADA.

Table 2-1 Available SCADA Data from Existing Systems

Service Area	Pump Station	Flow	Pressure	Wet Well Level	Influent Flow
Promontory Park	Main	X	X	X	
	Transfer	X	X	X	
Greeley West Park	N/A				
St. Michaels	N/A	X	X	X	
Boomerang Golf	Boomerang North				
	Boomerang South				
	Boomerang Transfer	X	X		
	North Ridge Transfer	X			
	North Ridge School	X	X	X	
	Poudre River Ranch	X	X		
Youth Sports Center	Youth Sports	X	X	X	
	Twin Rivers Park	X	X	X	
Highland Hills Golf	N/A	X			
Josephine Jones Park	N/A				
Peakview Park	N/A	X	X	X	
Monfort	N/A	X	X	X	
Sanborn Park	N/A				
Cottonwood Park	N/A				
Bittersweet Park	N/A	X	X	X	
Ramseier	N/A	X	X	X	

Service Area	Pump Station	Flow	Pressure	Wet Well Level	Influent Flow
Madison Elementary and Houston Gardens	Madison Elementary	X	X		
	Houston Gardens	X	X		
Luther Park	N/A	X	X		
Glenmere Park	N/A				
Jackson Field Sports	N/A	X	X	X	
Delta Park	N/A	X			
Balsam Park	N/A	X			
East Memorial	N/A	X	X	X	
Bella Romero Elementary	N/A	X	X		
Linn Grove Cemetery	N/A				
Stoney Brook	N/A	X			
Poudre Ponds	N/A	X	X	X	X
Island Grove and Saddle Club	Island Grove West	X	X	X	
	Island Grove East	X	X	X	
	Saddle Club	X	X		

As existing pump stations are replaced and new pump stations are installed, a unified approach to SCADA communication should be followed to allow for future operations flexibility.

Newly installed or replaced stations should be capable of using the City's preferred Modbus TCP/IP communication protocol. It is anticipated that over time the City's fiber network (or at least broadband) will be extended to all pump stations. Broadband network connectivity will allow both data-rich SCADA, as well as the implementation of monitoring and security systems at each site. Alarms should be capable of custom alarm priorities and call-outs. Generally, any status or control available on the local operator interface should be accessible via SCADA. At a minimum, the datapoints for new equipment should include:

- Status to SCADA
 - Mode (local/off/remote)
 - Running (each pump)
 - Motor speed (each pump)
 - Setpoints (pressure, flow)
 - Station flow
 - Station pressure
 - Wet well level
 - Filter flush

- Alarms
 - All alarms available on the vendor package
 - Fault monitoring
 - Power monitoring
 - Communication lost (outside of vendor package, network side)
 - Intrusion (outside of vendor package)
 - Space temperature (may be outside of vendor package)
 - Smoke/fire (outside of vendor package)
- Control from SCADA
 - Mode (in auto)
 - Run
 - Percent speed
 - Setpoints (pressure, flow)
 - Filter flush interval

In some locations, additional information such as ditch level, pond level, headgate position, or other datapoints may be desirable for remote monitoring and operation.

The overall control philosophy will continue to be stations operated in “island” mode, with the local PLC controlling the system to maintain the operational setpoint and protect equipment. In the future, the capability should be retained for SCADA control and orchestration of multiple pump stations, while the local PLC continues to provide equipment protection.

2.5 Data Collection and Record-Keeping

Historically, comprehensive data collection has often been difficult or impossible for distributed NP systems that were built by multiple parties. However, the City’s unique and advanced system calls for improved data collection and record-keeping practices to be implemented. Master planning efforts revealed certain gaps in data that could be remedied with further studies. The following recommendations may help the City to efficiently keep track of its system, pass on important knowledge and history to future employees, and fill in missing datasets:

- Conduct a study of the ditches and laterals throughout the LREGA. This will help identify good locations for future pump stations in undeveloped areas. Additionally, update the current ditches dataset in GIS to capture all stormwater runoff systems that are actually NP ditches, and vice versa. The City may also suggest having developers provide information on existing ditch laterals in a proposed development area as part of the existing conditions report.

- Update and enforce standards related to construction drawings and record keeping after construction or upgrades of an NP pump station, or other infrastructure. Require that developers provide detailed drawings showing the pump station, irrigation pipelines, and pump curves. The City should also develop and maintain its own internal record-keeping system to identify which documents are the most up to date. A CMMS including NP infrastructure could meet this intent.
- Create a system for regularly updating the NP GIS database. While some NP systems have detailed GIS information, other NP systems are not represented in GIS at all. Designating specific staff members with the task of updating the database after a new project and providing them with standard operating procedures may help with this effort.
- Install SCADA systems at new pump stations and pump stations that do not currently have it, to allow for further monitoring of flows and pressures.

Section 3

Demand and Economics

To plan for the future NP needs of the City, existing and future demands were established, and an analysis of economic feasibility of future expansion was completed. The NP water demands established were used in the WTDMP to show how potable water demand can be lowered by meeting demands that do not require the quality of potable water quality with NP water (e.g., irrigation or construction).

3.1 Existing System Demands

The first step in allocating demands in the NP water model is to examine how the City currently uses NP water. NP water is currently used mostly for irrigation, although it may be possible to expand the system so that it can meet some other demands that do not require potable service, such as construction. Information on NP demands was primarily found in the billing data and GIS data, as discussed in **Section 1** of this report.

3.1.1 Review of Billing Data and GIS Data

The existing irrigated areas were examined in GIS and the existing billing data was geolocated and categorized by customer type. Through this process, 99.3% of the total NP demands from the 2019 billing data were allocated to a geolocated meter. Additionally, the City requested that one “customer” be removed from the total, as it is a shoulder tap that feeds other billed customers. Shoulder taps are locations where the NP system can take water from the potable water distribution system during the early spring and late fall shoulder months, when the ditches may not have water but there are still irrigation demands. **Table 3-1** summarizes the billing customers and their associated demands by their City-assigned category. Categories were subsequently adjusted to match water and sewer customer categories.

Table 3-1 Categorized Billing Customers

Customer Category	Number of Billed Meters	Peak Month Consumption ¹ (MG)	Percentage of Total Consumption
Church/Commercial	1	0.8	0.7%
Commercial	36	8.5	7.3%
Golf Course	5	41.4	35.9%
Multifamily Homeowners Association (HOA)	2	0.3	0.3%
Non-Potable	1	0.1	0.1%
Parks	16	34.4	29.9%
Residential	22	13.6	11.9%
School	13	16.0	13.9%
Total	96	115.1	

¹ Average of 2018 and 2019 billing data, in million gallons (MG)

Some NP irrigated sites, such as certain parks, were not included in the billing system. These demands were accounted for with historical pumping data collected weekly through most of August 2019. This data was used for 33 locations (including three wells) across 12 sites, where metered billing data was not available. **Table 3-2** contains the pumping data for these areas.

Table 3-2 Pumping Data

Site Name	Pumped Peak Month Demand ¹ (1,000 gal)
Balsam Park	2,171
Bittersweet Park	4,585
Cottonwood Park	719
Delta Park	712
Glenmere Park	1,401
Greeley West Park	745
Island Grove	3,459
Island Grove Ball Field	3,300
Josephine Jones Park	1,102
Linn Grove	8,328
Saddle Club	69
Sanborn Park	2,783

¹ Average of 2018 and 2019 recorded pumping data

3.1.2 Variability in Demand

NP demands are much more irregular than potable water and wastewater demands. They are largely influenced by seasonal weather patterns, since most NP water is used for irrigation. In general, NP demand is highest in the summer and lowest in the winter. Both potable and NP demands were allocated based on summer usage. However, these seasonal variations do not account for year-to-year variability. This year-to-year variability is shown in **Figure 3-1**, where consumption based on billing data can more than double in certain years. A comparison with annual rainfall did not show a strong correlation to account for the annual variation.

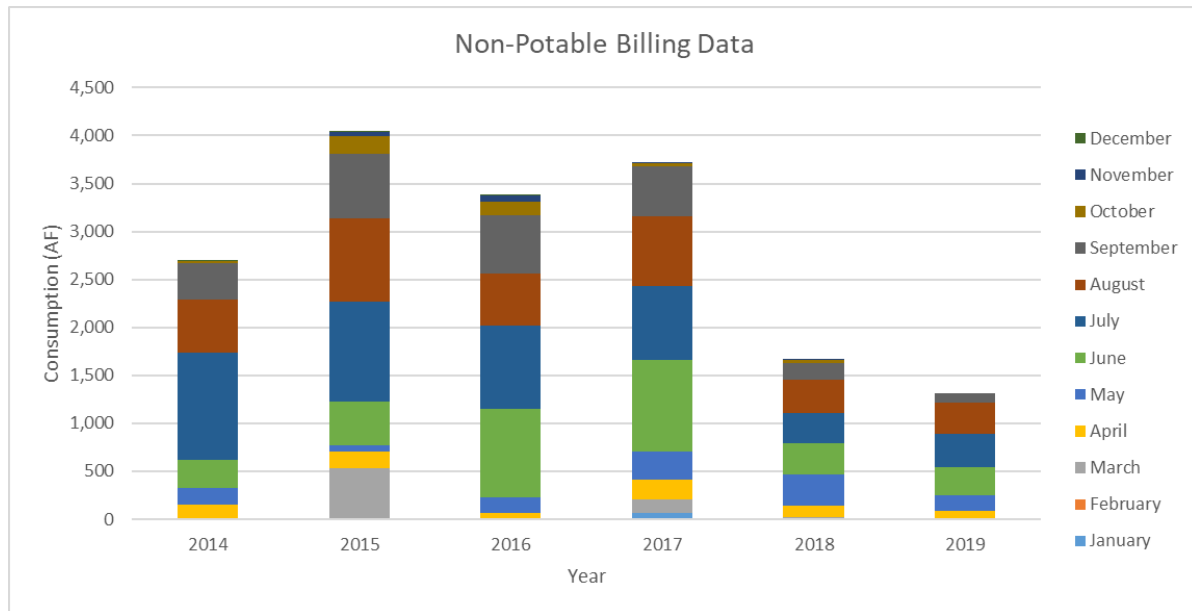


Figure 3-1 Variability in Annual Non-Potable Demand

Based on discussions with the City, it was determined that the reduction in annual demand was due to increased conservation efforts, especially the installation of water-efficient irrigation systems and smart irrigation controllers throughout City parks. To account for these changes, only billing data from 2018 and 2019 was considered for the development of this NPMP.

3.1.3 Flow Factor Development

To calculate future demand projections, it was necessary to establish flow factors. A flow factor is defined as the value used to estimate typical NP demand per acre for a given land use category. The historic billing data and the current NP irrigated areas shapefile were combined to produce flow factors by customer category. These flow factors were then used to estimate future NP demand scenarios through buildout based on land use projections established during the WTDMP.

Flow factors were calculated based on conversations with City staff to determine which areas were irrigated, and by which meters. The meters, and their associated area, had been previously categorized by the City, which was the basis for the flow factor categories. The peak month billed consumption by category was divided by the total irrigated acreage by category. This supplied the Irrigated Land peak month flow factor, as shown in **Table 3-3**. These values represent the amount of consumption for a site where the exact acreage being irrigated is known.

However, in undeveloped areas, the exact irrigated acreage is not known. To account for this, the percent of land that is irrigated out of a total parcel was estimated by category type. The total irrigated land by category was divided by the total (bulk) parcel area by category. These resulted in a Bulk Land peak month flow factor, also shown in **Table 3-3**. The flow factor calculation process is illustrated in **Figure 3-2**.

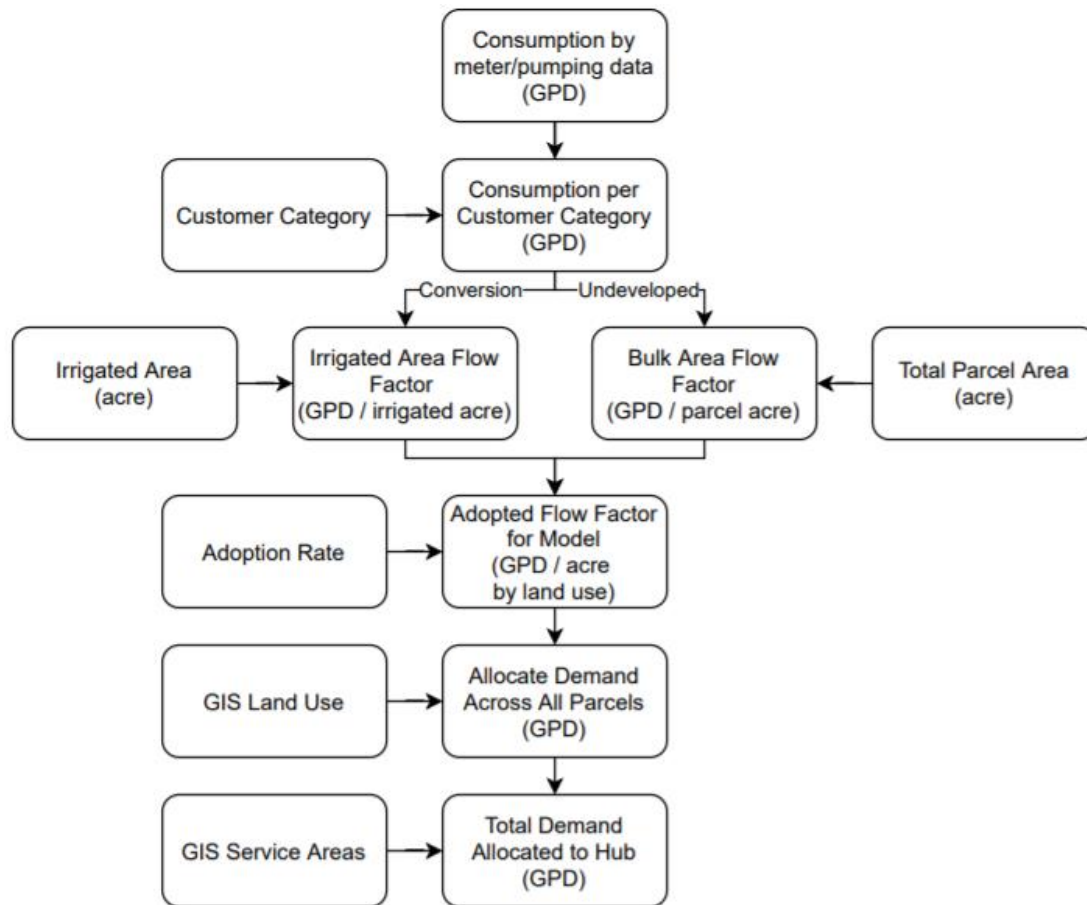


Figure 3-2 Flow Factor Calculation

These customer categories were coordinated with the WTDMP land use projections to examine areas throughout the LREGA. Generally, the Multifamily HOA category was associated with residential high density (R-H) land use category, the Residential customer category was associated with residential medium density (R-M), residential low density (R-L), and residential estate (R-E) land use categories, and the Commercial customer category was associated with commercial high intensity (C-H) and commercial low intensity (C-L) land use categories. However, because the existing NP system serves a limited number of areas, this process did not fully account for all types of land use within the City. The following changes were included in the final flow factors:

- Some land use types in the City do not currently have any examples of NP irrigation. This includes the industrial low intensity (I-L), industrial medium intensity (I-M), and R-E areas. For these areas, a flow factor was based on the difference between the summer and winter flow factors, as developed in the WTDMP and SSMP, respectively.
- Because schools are zoned as R-L, the R-L flow factor was based on a combination of the Residential and School flow factors.

- Because churches are considered commercial, the Commercial flow factor also includes churches. The Church category is used for conversion areas only. There are not many churches currently served by NP irrigation, so the Church flow factor also looks at existing churches that are only served by potable water and compares summer versus winter demand to determine an estimated flow factor.

Losses due to evaporation or seepage were not included in these calculations, as they primarily occur in the ponds and ditches rather than in the distribution system. These losses are estimated at 30%, based on operator knowledge, and are necessary for determining NP supply into ditches.

Table 3-3 Flow Factors

Category	Description	Peak Month Flow Factor for Irrigated Land (gpd/acre) ³	Percent Irrigated	Peak Month Flow Factor for Bulk Land (gpd/acre)	Peak Month Flow Factor for Irrigated Land (in/week)	Annual Flow Factor for Irrigated Land (in/year)	Adoption Rate ²
Church	For conversion areas only	2,000	63%	1,300	0.5	10.9	75%
Commercial	C-H and C-L; includes churches	3,200	42%	1,300	0.8	17.5	20%
Golf Course ¹	Golf course (NP category only)	5,000	87%	4,400	1.3	27.3	N/A
I-L	Industrial Low; Summer vs. winter flow factor	N/A	N/A	500	N/A	N/A	20%
I-M	Industrial Medium; Summer vs. winter flow factor	N/A	N/A	125	N/A	N/A	20%
Multifamily HOA	R-H	4,400	34%	1,500	1.1	24.0	15%
Parks	Parks (NP category only)	3,500	47%	1,600	0.9	19.1	90%
Residential	Single family residential; also used for R-M	5,200	17%	900	1.3	28.4	20%
R-E	Residential Estate; Summer vs. winter flow factor	N/A	N/A	80	N/A	N/A	15%
R-L	Residential Low; Residential and School average flow factor	4,700	26%	1,200	1.2	25.7	20%
School	For conversion areas only	4,300	48%	2,100	1.1	23.5	75%

¹ No additional golf courses are expected in the City through buildout.

² Adoption rates based on the BBC report; see **Section 3.2.1**.

³ gpd/acre = gallons per day per acre

3.2 Future Usage and Demand Projections

Using a combination of the City's planning data, land use projections from the WTDMP, and flow factors developed during the existing demands allocations, future NP demands through the buildout scenario were projected and allocated. This section captures the assumptions and calculations used to arrive at this value.

3.2.1 Adoption Rates

The adoption rates are the estimate of the amount of land that could potentially be irrigated that is expected to use NP irrigation. Future scenarios used the adoption rates, as shown in **Table 3-3**, for undeveloped land and most conversion areas. Undeveloped land had the factors applied per land use category including churches in Commercial and Schools in R-L. Conversion used the same factors, although schools and churches used a 75% adoption rate to account for a push to convert existing large irrigated areas to NP.

3.2.2 Infill and Conversion Areas

As the NP system expands, it may become both feasible and beneficial for some areas that are already developed to convert from potable to NP irrigation. These areas, referred to as conversion areas, were identified by the City based on knowledge of the individual customers, its current usage, and open irrigated acreages. The City identified over 400 individual areas that could be eligible for NP conversion. These areas were then categorized to identify which flow factors best fit them. The total acreage expected to convert to NP by category is summarized in **Figure 3-3** and shown in **Figure 3-4**. Areas that were identified as undeveloped land, roads, or non-irrigated areas were not included in the categorization. This is because undeveloped land is captured in the demand projections for undeveloped land, and roads or medians are too small to be accurately categorized.

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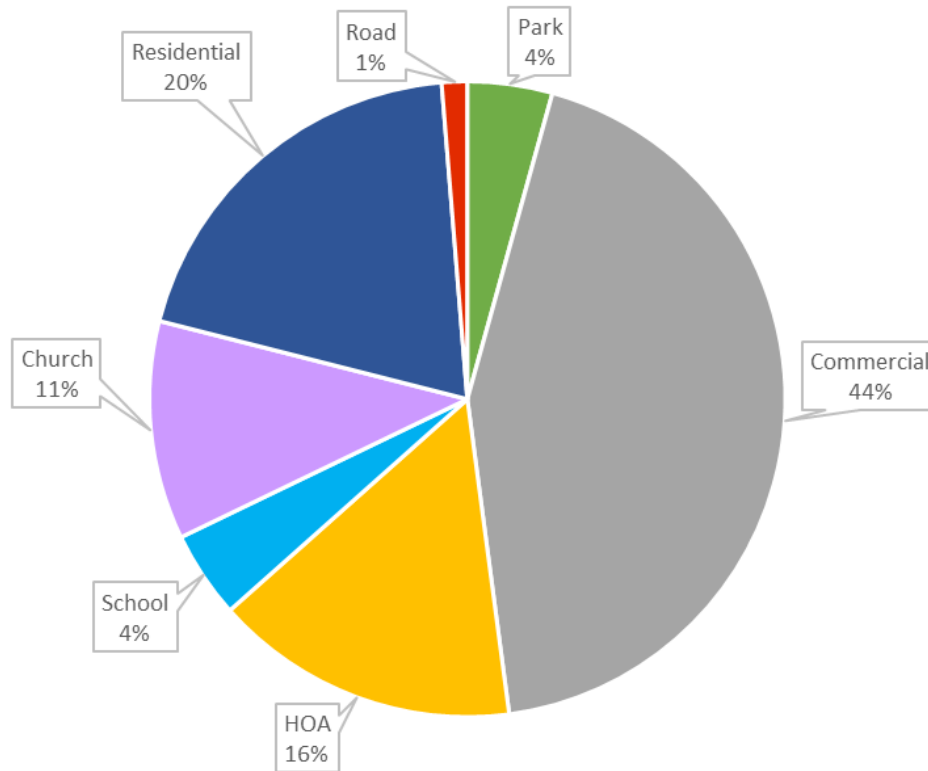
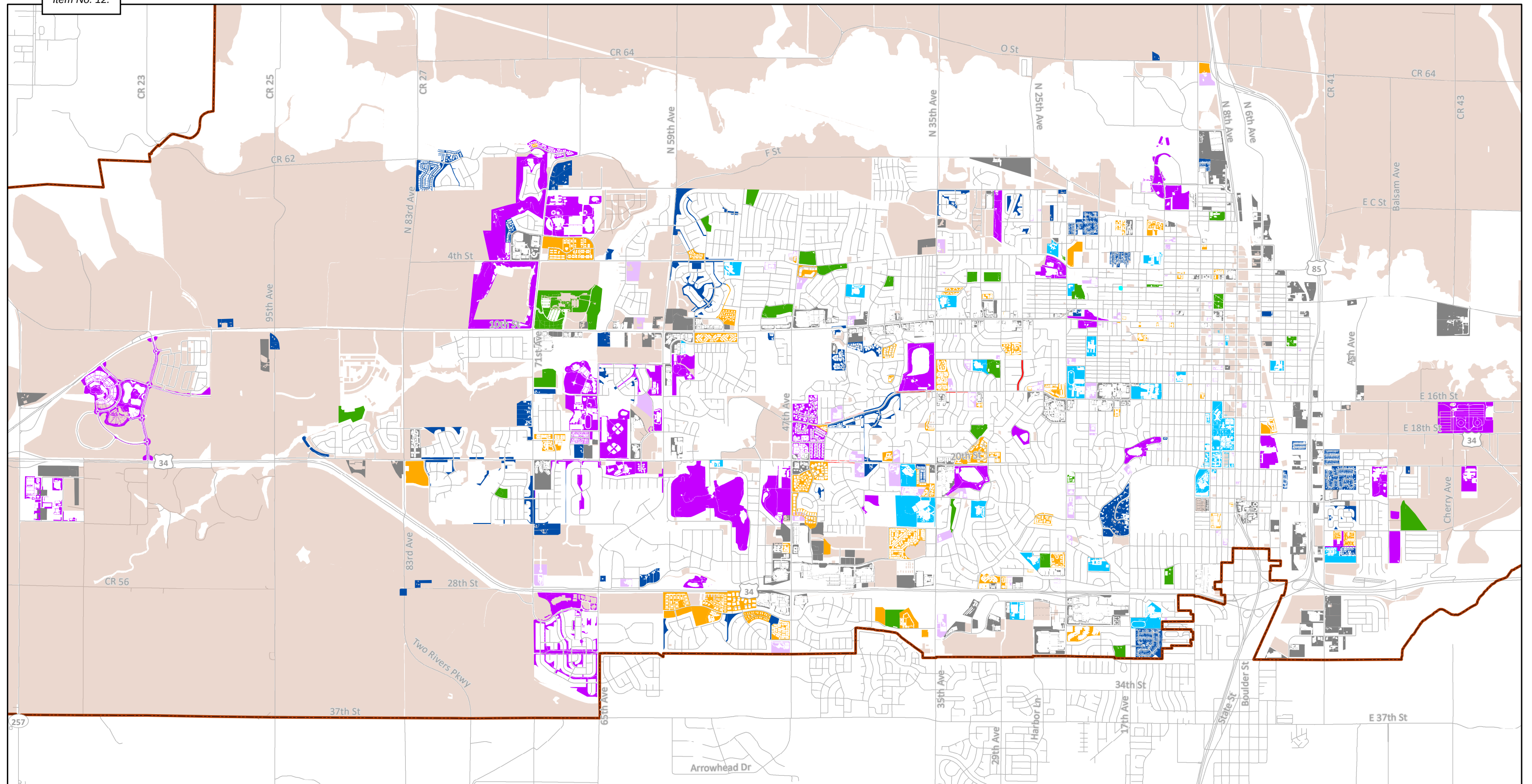


Figure 3-3 Conversion Area Categorization by Acreage

The conversion areas represent irrigable land; therefore the irrigable land flow factor was applied to each area for its category. It is not expected that all of these areas will convert to NP, and inclusion on this list is meant to identify a potential conversion, not set a requirement for conversion. To account for this, the adoption rates were applied to these areas.

Existing customers may be considered good candidates for potential conversion when they have a large irrigated area (greater than 15 acres), higher estimated demands (3,500 gallons per minute [gpm] per irrigated acre or higher), and/or are near existing or planned NP infrastructure. While a customer does not have to meet all these criteria to be eligible for conversion, the City should prioritize these properties. The City may also consider prioritizing customers that are public entities, such as parks and schools. Continued outreach to existing water customers can show them how NP irrigation can benefit them by lowering their water bill. For the purposes of the NPMP, it was assumed that all potential conversion areas will eventually convert to NP irrigation at the adoption rates noted above, regardless of whether they would be considered high priority or not.

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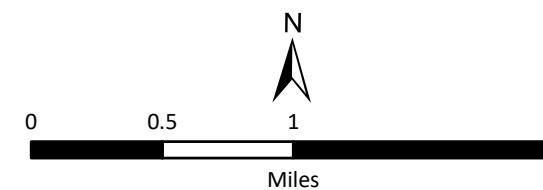
Legend

-  LREGA
-  Existing NP Irrigated Areas
-  Future Development

Conversion Areas

-  Church
-  Commercial
-  HOA
-  Park

-  Residential
-  Road
-  School



**Potential Conversion Areas
(Categorized)**

Figure 3-4

*Greeley Non-Potable Water
System Master Plan*



**CDM
Smith**
February 23, 2021

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3.2.3 Parks and Schools

Two land use types required special attention due to their high NP consumption: parks and schools.

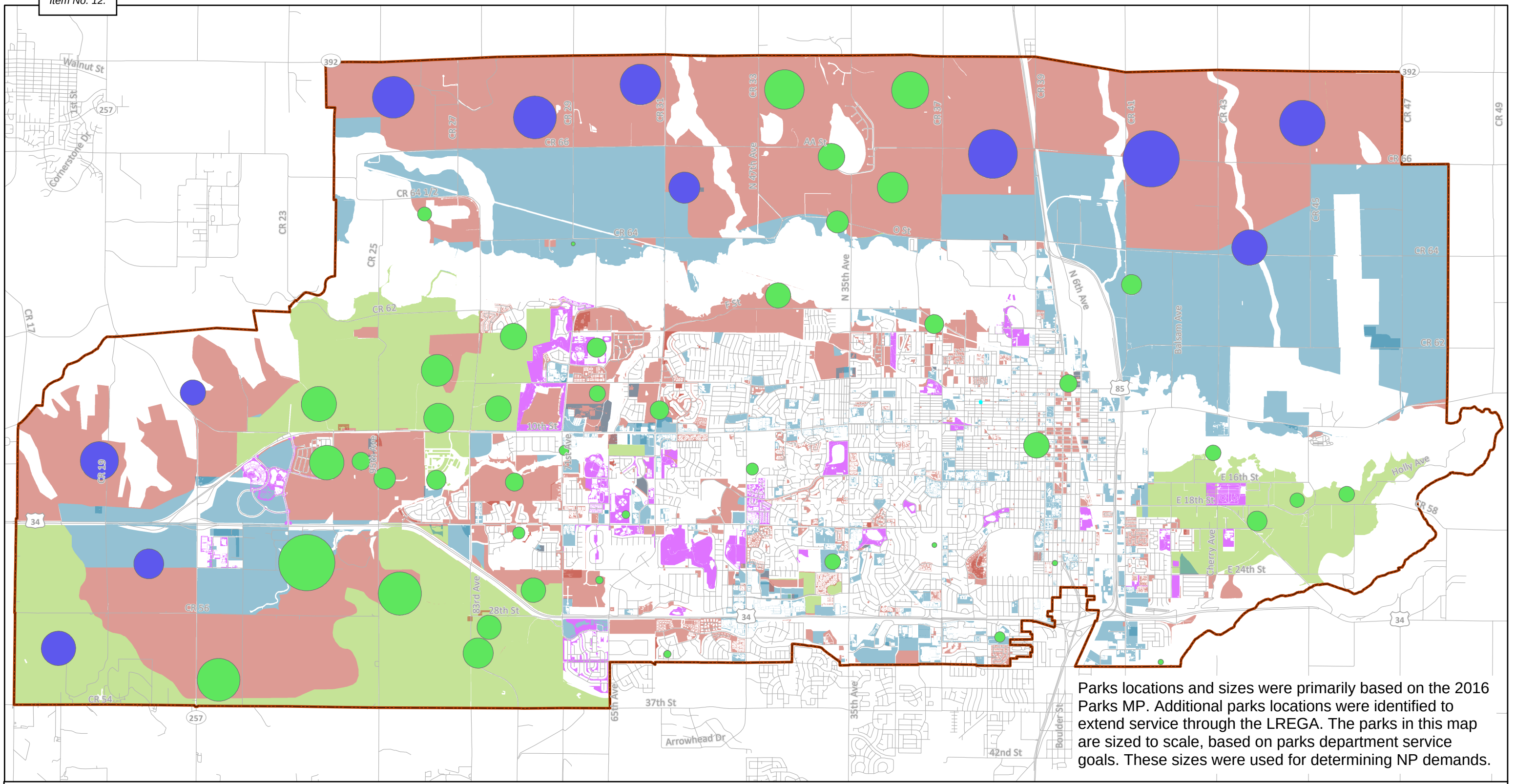
Park locations and sizes were primarily based on the City's Parks, Trails, and Open Lands Master Plan (2016). This document identified potential park locations for the next 20 years. These locations were supplemented by park locations included in this NPMP in order to extend parks service through the LREGA. It should be noted that the location and size of these parks is subject to change in future park master plans. The size of each park was based on population projections from the water and sewer master plans, and the park service goal of 8.25 acres/1,000 people from the 2016 Parks MP. This methodology was approved by the City's parks department.

Figure 3-5 shows all future park locations. Parks will serve as the hubs of the future NP system, and ponds serve both storage and aesthetic purposes.

Because schools represent large irrigable areas, it was desired to incorporate the location of future schools into the future demand projections. However, limited information is available as to the locations, numbers, and size of future schools. Because of this uncertainty, it was considered impractical to select a defensible number, and it was therefore decided to not include schools as a separate source of future demand projections. As schools are generally zoned as R-L, the R-L future flow factor was calculated as a weighted average between Residential and Schools flow factors. In this way, the NP demand from future schools is spread across the future land use areas where schools will eventually be planned.

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City of Greeley
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February 23, 2021

Legend

-  LREGA
-  Existing NP Irrigated Areas

Future Non-Potable Demand

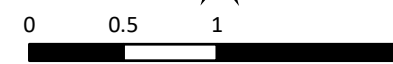
-  Commercial/Industrial
-  Residential
-  Mixed Use

Parks Areas (Buildout)

-  Potential Park Location (2016 Parks MP)
-  Potential Park Location (Approximate for Planning)



N



0 0.5 1 2
Miles

Future Parks Locations
Figure 3-5
Greeley Non-Potable Water System Master Plan

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3.2.4 Other Land Uses through the LREGA

Outside of conversion areas and parks, NP demand projections for undeveloped land throughout the LREGA were coordinated with the water demand projections. The WTDMP and SSMP used a complex land use categorization methodology to identify around 60 different land uses within the City, which were used to categorize all currently undeveloped areas or areas of redevelopment. Based on discussions with the City and a review of the available information, three tiers were used for the potable water demands, as described below:

1. **Tier 1: Planned Developments.** This data was taken from development reports and planning documents for twelve known developments, which are in various stages of design. These areas represent the most detailed planning information available.
2. **Tier 2: City of Greeley Land Use (Sub-Areas) and Zoning Markup Map (Greeley Markup).** After review of this data, the City marked up 11 areas of growth to apply a specific growth distribution to each area, based on trends developed after the creation of the document. The City's planning department assigned percentages of land use type to each growth area. These areas were then split into sub-areas to better align with the density distribution of the original *Imagine Greeley Comprehensive Plan*.
3. **Tier 3: Zoning and Comprehensive Plan Information.** For all remaining areas, including infill areas, zoning and land use information was used to distribute future populations and water demands. This data was taken from the following sources:
 - a. Zoning from the *Annual Growth & Development Projections Report* (City of Greeley, 2019).
 - b. Land use guidance from the *Imagine Greeley Comprehensive Plan* (City of Greeley Community Development Department, 2018).

Using this data, each parcel in the City was assigned with a residential and nonresidential (i.e. commercial or industrial) future water demand based on its land use category. For detailed information on the potable demand calculations, please see the WTDMP.

The water and sewer land use types were then coordinated with the NP flow factor categorizations to develop separate NP and potable water flow factors for each land use type. These flow factors were applied throughout the LREGA to determine total NP demand.

3.2.5 Buildout Projections Summary

The conversion areas, parks, and undeveloped land were combined to produce a total NP demand set for peak month at buildout. This was incorporated into the future water model to aid in appropriately sizing infrastructure. The peak month buildout demand projections for potable vs. NP are summarized in **Table 3-4**. The NP demand density is shown in **Figure 3-6**. The NP demands comprise 19.5% of all future peak month water demands through buildout. NP demands may decrease if planning shows that it is not hydraulically or economically feasible to serve certain areas or, conversely, NP demands may increase if aggressive NP use policies are adopted.

Table 3-4 Peak Month Buildout Demands Summary

Development Type	Total Future Water Demand (MGD)	Future Potable Water Demand (MGD)	Future Non-Potable Water Demand (MGD)
Existing Demand	47.3	46.0	1.3
Future Development	56.7	47.5	9.2
Conversion Areas	2.3	0	2.3
Total	106.3	93.5	12.8

3.3 Demand Estimates by Planning Horizon

To distribute the future demand parameters in the model at each planning horizon, the percent to which each future development tier is built out at the end of each planning horizon was estimated. The basis for these estimates is the BBC report. At the 2025 and 2040 planning horizons, the calculated population is matched to the BBC report. The overall buildout population is assumed to exceed the 2075 BBC projected population. The total buildout population is projected to be 425,271. For more information on the percentages used, please see the WTDMP. The total phased potable and NP demands are shown in **Table 3-5**.

It is assumed that the Tier 1 projects will be completed first. For this reason, the majority of the Tier 1 projects are assumed to be complete at the 2025 planning horizon, and all of them complete at the 2040 planning horizon.

Because of the large areas within the Tier 2 projections category, the Tier 2 percent complete values for the 2025 and 2040 planning horizons have been developed through close discussions with the City. The Tier 2 areas identified for growth at the 2025 and 2040 planning horizons are the areas that the City's planning department have identified as the most likely growth areas.

The Tier 3 growth identified below for the 2025 planning horizon was chosen through discussions with the City. Tier 3 growth included in the 2040 planning horizon was assumed to include all of the infill around the Tier 1 and Tier 2 projected growth areas.

The rate at which existing developments will convert to NP irrigation will vary location-by-location based on economic feasibility, proximity to NP infrastructure, and the willingness of the owner to participate in conservation efforts. To estimate the rate of conversion areas, it was assumed that demand from conversion areas will increase at a similar rate to the total additional water projections. The percentage of water demands increase, as compared to the buildout projections, at each planning horizon was calculated, and this same percentage was applied uniformly to the conversion areas.

Table 3-5 Peak Month Demand by Planning Horizon

Planning Horizon	Total Future Water Demand (MGD)	Future Potable Water Demand (MGD)	Future Non-Potable Water Demand (MGD)
Existing	47.3	46.0	1.3
2025	51.8	49.4	2.4
2040	61.0	56.9	4.1
Buildout	106.3	93.5	12.8

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3.4 Economic Feasibility for Future Projects

In most developments, the decision on whether or not to use NP irrigation is based on economic feasibility, meaning whether the cost savings from using NP over potable outweighs the initial cost of infrastructure construction. This evaluation should consider the current cost of infrastructure against the long-term benefits of reducing potable system expansion, reduced cost of treatment, and freeing up more valuable treatable water rights for potable use. Long-term savings to the eventual owners/occupants of the property should also be considered when evaluating feasibility.

3.5 Water Resources Correlation

It is important for the City to plan for the total annual water demands through buildout. Water conservation methods, such as improved landscaping practices and the encouragement and adoption of NP water for irrigation, may help reduce the City's annual water demands. The City previously conducted a water resources planning study (BBC report), which focused on developing three alternative scenarios for annual water demands. The NPMP primarily focused on planning for future infrastructure needs based on peak summer demands. **Table 3-6** provides a comparison summary between the BBC report and the NPMP.

Table 3-6 NPMP and BBC Report Comparison

NPMP Approach	BBC Approach
Focused on infrastructure sizing, particularly during peak month demands	Focused on supply-side annual demands for water resources planning
Used a peak month: average month ratio of 1.8 for potable demands and 2.5 for NP demands to estimate annual demands from the calculated peak month demands	Only calculated annual demands, and did not calculate demands for peak seasons
Separated residential and nonresidential potable water demands to account for different customer diurnal curves and peak hours	Established a universal gpcd value that included commercial, industrial, and residential demands
Correlated population projections to the BBC report and other City planning department data	Developed three population projections (low, medium, high)
Geolocated demands based on land use to incorporate demand density for infrastructure planning	Used bulk demands for water resources planning, and did not spatially locate demands within the City
Estimated a single most-likely demand scenario for 2025, 2040, and buildout based on historic data and planning data	Provided detailed water resources planning for three scenarios every five years through 2075 and a less detailed buildout scenario

The total annual demands developed for the WTDMP under the NP offsets demand scenario at buildout are captured in **Table 3-7**. These demands are within the range established by the BBC report of 62,000 to 84,000 AFY for total water demands at buildout. Although the six industrial high intensity (I-H) users are included in these totals, these users were not used for modeling purposes, as their location is unknown and could lead to oversizing the system. Each large user's location will require a specific evaluation as to whether each additional user could use NP irrigation, and whether additional infrastructure would be necessary to supply this water.

Table 3-7 NPMP Annual Demand Projections at Buildout

Demand	Total Water Demand (AFY)	Potable Water Demand (AFY)	NP Water Demand (AFY)
Existing	30,500	28,600	1,900
Future Demands	33,500	28,300	5,200
New I-H Users (6)	10,300	10,300	0
Total	74,300	67,200	7,100

¹ Potable demand shown in this table is for NP offset scenario

It is recommended that The City rely on the BBC report for supply-side planning, and the WTDMP and NPMP for infrastructure and distribution system planning.

Section 4

Development of the Non-Potable System Model

Two system models, existing and future, were developed to plan for the future NP needs of the City. These two system models used the same inputs and assumptions as the existing system; projection growth rates and water demands, future service areas, and pipe and infrastructure sizing constraints.

The supply and demand data, asset and infrastructure inventory, and land use analysis were used to develop a model of the existing and future NP system. The future NP system model was created in line with the City's Specifications for NP systems.

4.1 Development of the Existing System Model

A hydraulic model of the existing NP system was developed in InfoWater to simulate current conditions and identify areas that may need short or long-term improvements.

The NP system currently consists of 32 pump stations, including transfer stations, serving over one hundred customers. Most of these pump stations operate independently from other stations, creating 24 individual service areas. The systems at each service area are described in **Table 4-1**, and are shown in **Figure 4-1**. In a typical system, water flows by gravity from an irrigation ditch into a pond. From there, the water enters the wet well of the pump station and is pumped throughout the rest of the pressurized irrigation system.

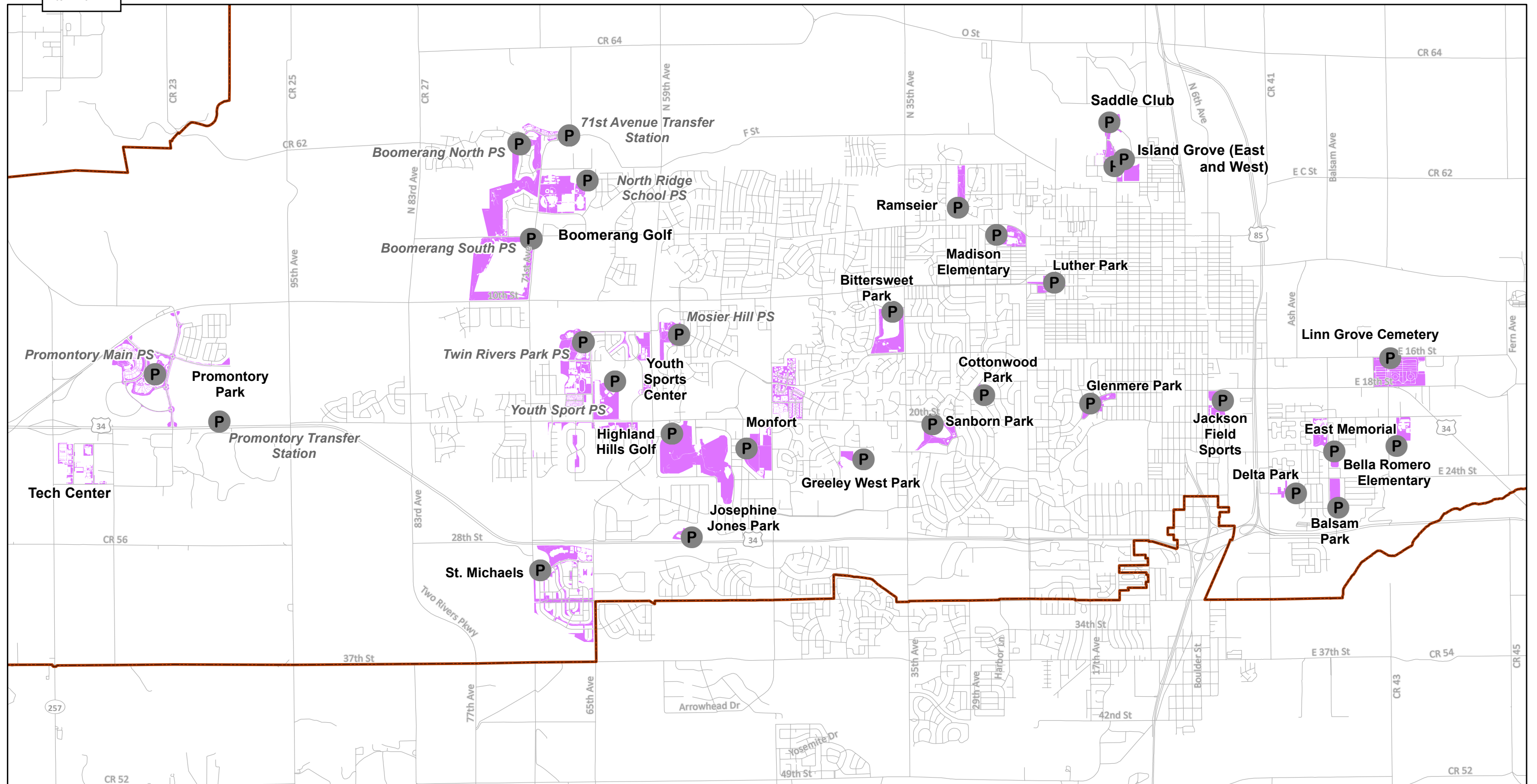
Table 4-1 NP System by Service Area

Service Area	General Description
Balsam Park	A single pump station irrigates this park. This pump station pulls directly from the ditch, without a pond.
Bella Romero Elementary	A single pump station irrigates this park. This pump station pulls directly from a well, without a pond.
Bittersweet Park	A single pump station irrigates this park.
Boomerang Golf	The 71 st Avenue Transfer Station provides water to Boomerang Golf Course (north and south), North Ridge High School, and Poudre River Ranch. The Boomerang Transfer pumps provide water specifically to Boomerang North and Boomerang South, while the North Ridge Transfer pumps provide water specifically to North Ridge High School. Boomerang North, Boomerang South, and North Ridge High School receive water from the 71 st Avenue station into ponds, and then pressure pump from there. Poudre River Ranch has a dedicated irrigation pump at the 71 st Avenue station.
Cottonwood Park	A single pump station irrigates this park.
Delta Park	A single pump station irrigates this park.
East Memorial	A single pump station irrigates this park. The pond can be filled by the ditch, a shoulder well, or a shoulder tap.
Glenmere Park	A single pump station irrigates this park.
Greeley West Park	A single pump station irrigates this park.
Highland Hills Golf	A single pump station irrigates this golf course.

Section 4 • Development of the Non-Potable System Model

Service Area	General Description
Island Grove and Saddle Club	Island Grove East, Island Grove West, and Saddle Club pump stations all pump from individual wells and irrigate separate areas. Saddle Club also has a truck filling station in addition to general irrigation.
Jackson Field Sports	A single pump station irrigates this park. This pump station pulls directly from the ditch, without a pond.
Josephine Jones Park	A single pump station irrigates this park.
Linn Grove Cemetery	A series of three wells pump either into the irrigation system directly or fill a pond. A pump station on the pond also serves the cemetery's pressurized irrigation system.
Luther Park	A single pump station irrigates this park. This pump station pulls directly from the ditch, without a pond.
Madison Elementary and Houston Gardens	A single pump station with two separate pumping systems irrigates this area, splitting into two pipes to serve the school and gardens. This pump station pulls directly from the ditch, without a pond.
Monfort	A single pump station irrigates this area, splitting into three pipes to serve the park, school, and residential/commercial areas.
Peakview Park	A single pump station (Mosier Hill Pump Station) irrigates this park.
Promontory Park	A transfer pump station moves water from the ditch into the main ponds. The main pump station provides irrigation to the park, offices, and residential area. A small water circulation pump at the main station moves water from the lowest pond to the highest pond (not included in the model), creating the water feature.
Ramseier	A single pump station irrigates this park. This pump station pulls directly from the ditch, without a pond.
Sanborn Park	A single pump station irrigates this park.
St. Michaels	A single pump station irrigates this development.
Tech Center	This area is currently fed by potable water at a shoulder tap and does not have an NP pump station. Eventually, it will be transferred to NP water service.
Youth Sports Center	Two pump stations operate independently, but in a similar area: Twin Rivers Park and Youth Sports. Together, they serve two major recreational areas, schools, businesses, and residential areas.

In addition to these areas, Poudre Ponds, Stonney Brook, and the future Upper Equalizer transfer water from one ditch into another. Because these systems do not represent demand, they were not analyzed in depth.



Legend



LREGA



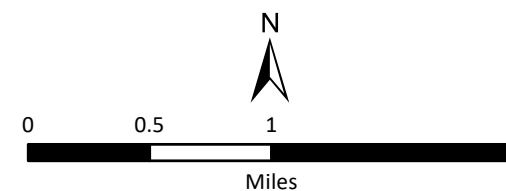
Pump Station



Existing NP Irrigated Areas



May 17, 2021



Existing Non-Potable Service Areas

Figure 4-1

Greeley Non-Potable Water
System Master Plan

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4.1.1 Infrastructure Connectivity Updates

Before the existing system could be hydraulically modeled, the City's NP GIS data needed to be updated to reflect current infrastructure. As discussed in **Section 1**, a GIS field survey was conducted to document the existing system. This task identified the location of features such as valves, pumps, and ponds, but did not capture how these features were connected to each other, as most NP piping is underground.

To accurately represent the system, historic operational data was analyzed and translated into GIS updates. As discussed in **Section 1**, the City compiled O&M data for each pump station. The construction documents, photos of the site, and other O&M data was integrated with the GIS field data and the City's original GIS data to fully capture the system. These GIS updates do not represent the full extent of piping through areas such as parks. All GIS updates were verified with City staff. The following overarching assumptions were used to update the system connectivity:

- Where meters appeared to be offset from the main lines, 2-inch laterals were added.
- For areas where the pipe or valve diameter was unknown, the diameter was assigned based on adjacent infrastructure (pipes, pumps, valves, etc.).
- In areas where infrastructure was within a meter of a pipe, it was assumed that this was due to the one-meter accuracy of the GPS unit used to collect the field inventory data. Because the field inventory data is considered to be the most up to date information, the pipes were realigned to connect through the field data.

4.1.2 Modeling Inputs and Assumptions

In general, the NP modeling methodology attempted to follow the same methodology as the potable water system model, to facilitate future integration. However, because the NP system has unique features (such as ditches, shoulder taps, etc.) and because it represents a series of separate systems instead of one larger interconnected distribution system, a unique methodology was needed to accurately depict these features. This section discusses this methodology.

Ditches. When an NP system draws directly from a ditch without an intermediate storage pond, the ditch was modeled as a fixed head reservoir. Because transfer systems are not included in the model, there are no places where water flows into a ditch.

Pipes. All existing and future pipes have of roughness of $C = 130$, to represent PVC.

Ponds. For most systems, the distribution system begins at a pond. For these systems, the pond is modeled as a fixed head reservoir. The fixed head was based on the field inventory, construction drawings, or ground surface elevation, depending on what information was available. For the purposes of modeling, it was assumed that the ponds can supply water to meet the system demands at all times during peak season.

Shoulder Taps. Shoulder taps are locations where the NP system can take water from the potable water distribution system during the early spring and late fall shoulder months, when the ditches may not have water but there are still irrigation demands. These are modeled as a fixed head reservoir with a normally closed valve that prevents it from flowing. The head on the

reservoir is set at peak month operating head in the potable water distribution system model. Notably, the shoulder taps do not typically operate during peak month conditions; therefore, this setting is considered conservative.

Wells. Like ditches, when an NP system draws directly from a well without an intermediate storage pond, the well suction conditions are modeled as a fixed head reservoir. The fixed head is the design pumping depth, as found in the O&M documents. The above ground well pump was modeled using available well pump curves, and submerged well pumps were not included in the model.

Pumps. Where available, the pump curve for each existing pump was used in the model, as provided in the O&M documentation. For pumps without a curve, a design point (defined as design head and flow) was used. Many NP pump stations also include a maintenance pump to maintain pressure during low flow. These are not included in the model.

4.1.3 Existing Demands Allocation

Existing demands were based on historic billing data and pumping data, as discussed in **Section 3**. To establish the peak month base demands used for this model, an average of demands, either billed or pumped, was taken for July and August of 2018 and 2019. The base demand derived from billing data was allocated to the appropriate meter and included in the model. For areas with demand based on pumping data, the demand was allocated to a node directly downstream of the pump station.

4.2 Extended Period Simulation Setup

Both the existing and future models were evaluated under extended period simulation (EPS) to examine how they perform throughout the day, instead of at a single point in time. All model scenarios had a 48-hour time duration. This section describes the methodology used to simulate EPS, including SCADA data calibration, diurnal peaking curves, and the approach to pump controls.

4.2.1 SCADA Data Calibration

As mentioned in **Section 1**, hourly SCADA data from September 1, 2015 to September 5, 2020 was used to calibrate the model. Not all SCADA data was available at all sites, and some sites do not have any SCADA data. For both the overall system and individual systems, a peak week with the highest usage was selected from the July and August 2018 and 2019 dataset. This peak week was selected to align with billing data used for demand projections. The data from the peak week was used for model calibration and diurnal curve development for each system.

Hourly pressure data, where available, was used to set up pump controls. The pump controls were set up to match pressure ranges that are typical to a given system. Diurnal curves were used to derive simple time-based controls to match typical pressure ranges for each system. For areas without available pressure data, pump controls were set so that pressures stayed within the 70 – 100 psi pressure range required by the City's Specifications.

4.2.2 Peaking Factors and Diurnal Curves

Diurnal curves were created from the SCADA data described above to show how the demands change on an hourly basis. These diurnal curves include the peak hour, which is the primary point in time used to evaluate the capacity of pumps and pipes. Ponds are sized on peak day.

The hourly data from the peak week for each system was used to create diurnal curves based on peaking during each day. Individual curves were created for pump stations that had their own SCADA data. These individual curves are included in **Appendix C**. Many of these individual diurnal curves revealed operational inefficiencies, such as watering during the day instead of only at night. Inefficient irrigation practices can increase costs and counteract water conservation goals. For more information on NP best practices, please see the City's WaterWise Landscaping Best Practices Manual Criteria in **Appendix F**.

A system-wide diurnal curve, shown in **Figure 4-2**, was created as a more generalized curve. It was based on SCADA data from the following pump stations: Promontory Main (not transfer), St. Michaels, Youth Sports Center, Monfort, Mosier Hill, Madison Elementary, Ramseier, Island Grove East and West, Luther Park, Jackson Field Sports, Bella Romero Elementary, East Memorial, Balsam Park, Delta Park, Highland Hills Golf, Twin Rivers Park, and North Ridge School (not transfer). The curve average is 1.35, which represents the ratio from peak month to peak week based on SCADA data so that the curve can be applied directly to the peak month demands developed. The individual curves each have different averages based on their own peak week: peak month ratios.

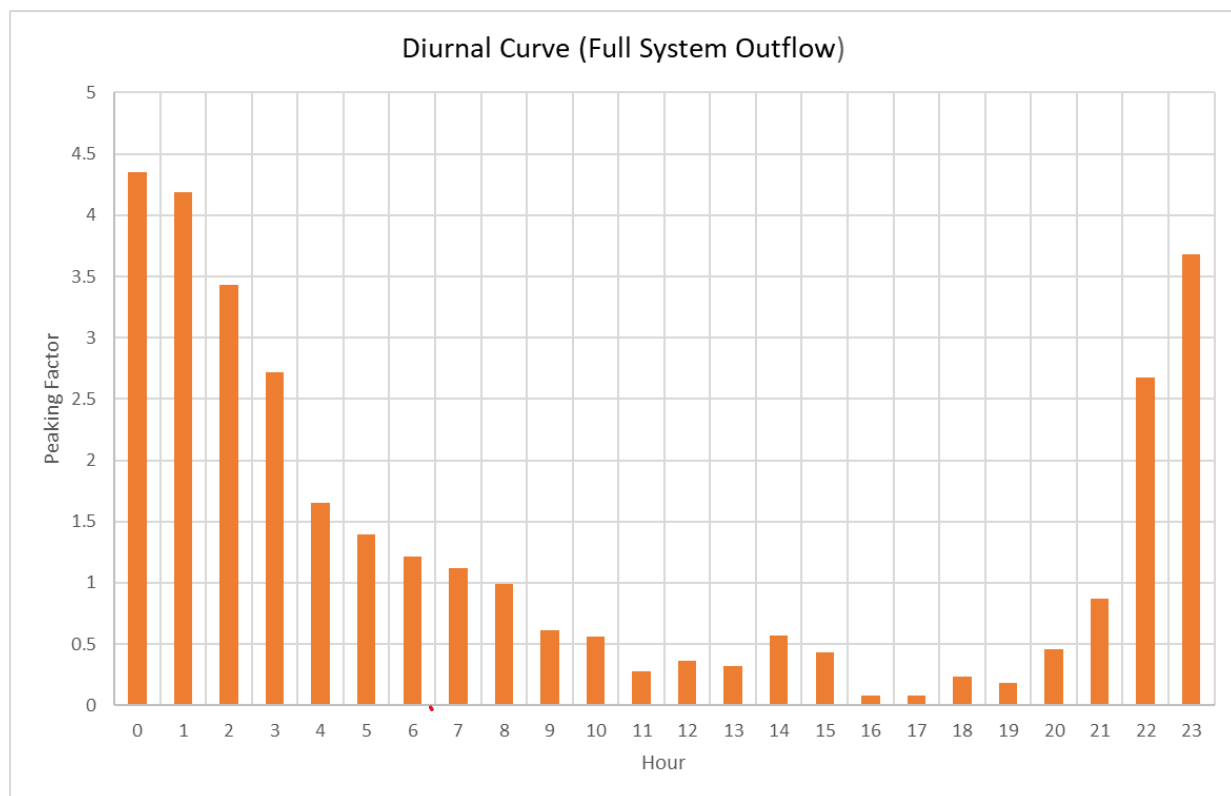


Figure 4-2 System-Wide Diurnal Curve

The peak hour of the system-wide diurnal curve occurs at midnight (hour 0) and has a peaking factor of 4.34. Limited watering appears to occur between 9 am and 8 pm, which aligns with the City's irrigation ordinances and best practices. This curve was applied to existing areas that do not have an individual curve, and to future developments.

For EPS modeling, these diurnal curves are repeated during a 48-hour runtime, in order to align with the potable water system model.

4.2.3 Pump Controls

Because each system is not connected and has unique demands and demand patterns, the modeled pump controls are also unique for each system. In general, pump controls are set by clock time based on the diurnal curve used by the system. For example, if demand drops to zero at hour 4, pumps will turn off or drop to a lower speed at hour 4 to accommodate this change. Because the NP pump stations use variable frequency drives (VFDs), the pumps may vary from 70% to 100% speed. At points where there is no demand in the system, the pumps are modeled as operating at the shutoff point; in real operations, this time period would likely be served by the maintenance pump. This methodology was used for both the existing system and the future system to ensure that appropriate pressures are maintained at all timesteps. This section is specific to modeling methodology; for more information on recommended operation of pump stations, see **Section 2.3** and **Section 2.4**.

4.3 Development of the Future System Model

Future infrastructure was projected throughout the LREGA to show how all areas through the City could be met with NP demand. This section discusses how future infrastructure, including pump stations and piping, was planned and modeled in InfoWater at each planning horizon. All planning horizons (2025, 2040, and buildout) were modeled using the same methodology.

4.3.1 Future Service Areas

In general, it is expected that the NP system will continue to operate as a set of independent systems using a hub-and-spoke methodology. The future parks, as shown in **Figure 4-3**, will serve as the hubs of the future system, as locating the pond and pump station in a park offers both recreational and aesthetic benefits, and provides the open space required for infrastructure.

Because of this, the land through the LREGA was divided into service areas based on the locations of the future parks and the existing NP system. The service areas were initially based on Thiessen polygons around the parks which were then reviewed and customized. The nearest source of NP water was identified, taking topography into account. This informed which areas should have their own pump station (those with a feasible NP source), and which should be served via pressure piping from another NP pump station. Final pump station and pond locations would ultimately be dependent on proximity to a ditch lateral or other water source during the design stage. The following assumptions were used to further refine the future service areas:

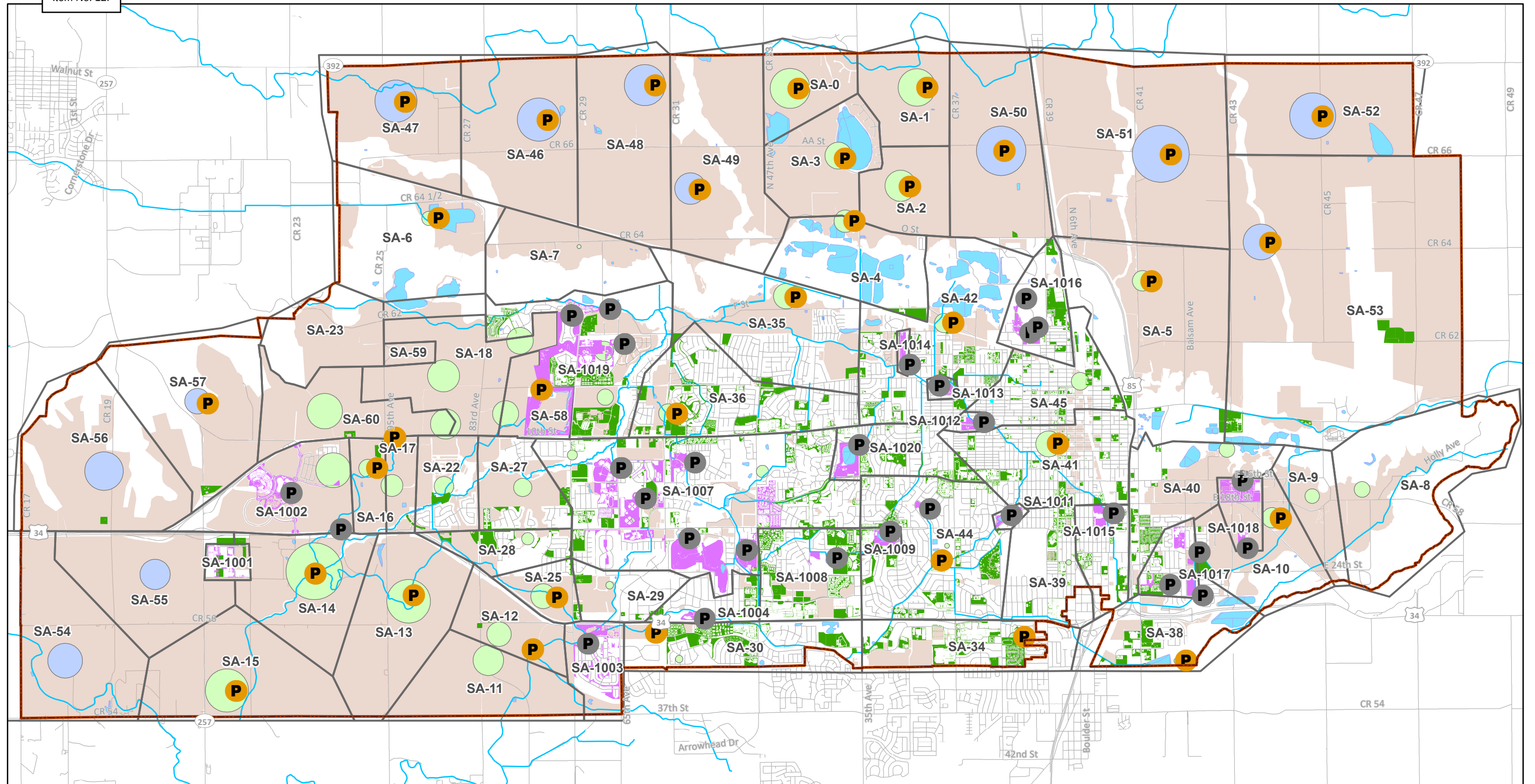
- Looping and connections between existing and future systems were attempted where possible. This can include systems with a similar hydraulic grade line or areas where it is less expensive to construct connecting pipe instead of installing new pumps or a new pump station.

- Railroad, river, and major road crossings were minimized where possible.
- NP water will flow by gravity into the ponds, located within parks, then will flow under pressurized conditions from the pump stations at the ponds.

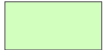
A map of the future service areas, including future pump stations, is included in **Figure 4-3**.

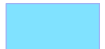
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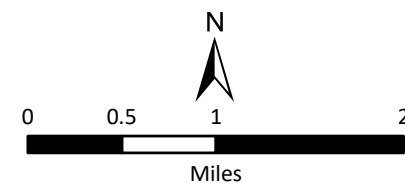
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Legend

- | | |
|---|--|
|  LREGA |  Future NP Demand Parcels |
|  Existing NP Irrigated Areas |  Greeley Ditch |
|  Future Pump Station |  Potential Park Location (2016 Parks MP) |
|  Existing Pump Station |  Potential Park Location (Approx. for Planning) |

- | |
|--|
|  Service Areas |
|  Lakes and Ponds |
|  Conversion Areas |



Future Service Areas (Buildout)

Figure 4-3

Greeley Non-Potable Water
System Master Plan

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4.3.2 Model Inputs and Assumptions

The preliminary future model was setup for the buildout scenario, which involves setting up infrastructure through the LREGA to account for a more than 800% increase from existing demands. The current City limit is 31,346 acres, while the LREGA is 58,306 acres, representing an 86% increase in land area by buildout, along with those areas that may convert from potable to NP irrigation. While it is impossible to perfectly predict future development needs, the model should provide a roadmap for future pump station locations and sizing, main pipe sizing, and potential interconnections between key areas. Developers should work with the City's engineering development review (EDR) and water and sewer department to discuss how new developments fit into the City's overall plan to provide NP irrigation service at acceptable pressures in both new and existing areas.

In order to establish infrastructure through the LREGA, pump stations were added into the model at each of the locations identified in **Figure 4-3**. Each pump station draws from a pond, modeled as a reservoir, and has two identical pumps in parallel. A typical pump station is shown in **Figure 4-4**. It is expected that each pump station would also have a smaller maintenance pump, not included in the model. Per the City's Specifications, pumps are required to operate with at least 80% efficiency; therefore, the pumps were modeled uniformly as 80% efficient. Pumps are expected to operate using a lead/lag methodology.

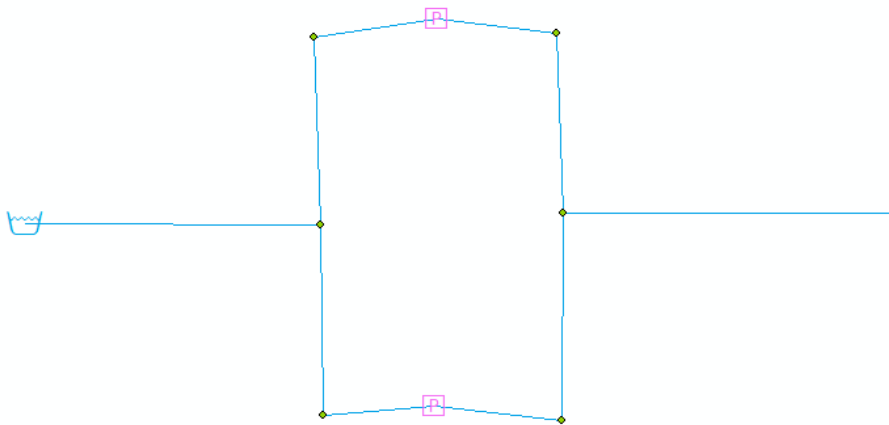


Figure 4-4 Typical Future Pump Station Configuration

In some areas, longer pipelines were drawn from the pump stations to serve undeveloped or conversion areas. These pipelines sometimes end at an anticipated parks location that is not expected to require its own pump station due to distance from a water source or proximity to another pump station. In other cases, the lines are expected to serve higher priority conversion areas, as described in **Section 3.2.2**. As with other infrastructure, these pipes do not represent final layout or sizing and should be reevaluated during the design stage.

The elevation of future nodes, including pumps and ponds, was based on ground surface elevation. Like the existing system, future pipes were modeled with a hydraulic roughness ("C") of 130.

4.3.3 Future Demand Allocation

After the piped network was established, the future demands were set up in the model for the new service areas. Details on demand projections through buildout can be found in **Section 3**.

Future demand datasets were created for each planning horizon, using the existing demand set with future peak month demands for both new developments and conversion areas. Existing and future demands were set as separate demands within the InfoWater demands database to allow for different diurnal curves for existing versus future demands. Each future demand point was tagged with the service area it is in, and all the demand was summed to produce a total demand per service area. This was allocated to the node downstream of the pumps. When there were multiple pump stations within a single service area, the demand was divided evenly between them.

4.3.4 Piping and Infrastructure Sizing Criteria

The hydraulic model is helpful in providing the preliminary sizing of infrastructure such as pump stations, storage ponds, and pipe sizes. These initial models are intended for planning purposes only, and do not constitute a preliminary design plan. Developers should work with the City's EDR and water and sewer department to discuss how new developments fit into the City's overall plan to provide NP irrigation service at acceptable pressures in both new and existing areas. All future infrastructure must comply with the City's Specifications.

As noted previously, each future pump station is modeled with two pumps in parallel. The City's Specifications state that NP pump stations must have a capacity of 120% of peak hour demand. All future pumps are therefore sized where the two pumps are identical, with a combined flow of 120% of the peak hour. An iterative process is used to identify the required design head for these pumps, so that pressure requirements are met downstream.

Per the City's Specifications, NP irrigation mains can be 4-, 6-, or 8-inch, and NP transmission mains can be 10 inch and larger. Per the City's direction, 8-inch will be the smallest pipe size recommended for the City's future NP system. After the meter, developers may use whatever size is required. Additionally, pressures are required to be 70 – 100 psi at each NP irrigation service meter and have a peak flow velocity less than 5 fps and headloss less than 10 ft/1,000 ft. Pipes within the model were sized large enough to meet these pressure and velocity requirements, without incurring extra costs by oversizing. Developers may use any line size that meets the hydraulic requirements described in the City's Specifications.

Ponds are designed to store four days of peak day flow, per the City's Specifications. Storage was calculated using peak day demand to provide preliminary pond sizes for the analysis phase of the project.

Section 5

Existing and Future System Model Evaluation

Existing and future system models were developed to plan for the future NP needs of the City. These models were analyzed for system-wide deficiencies and improvements for the current, the 2025, 2040, and buildout planning horizons. The NP model was incorporated into the potable models for evaluating overall potable and NP water system needs. This Section discusses the way the existing and future systems were analyzed.

5.1 Evaluation Criteria

The existing and future systems were analyzed through a combination of hydraulic modeling in InfoWater and desktop analyses, as discussed on **Section 4**. This section discusses how the various parts of the NP system (such as pipes, pumps, and storage) were evaluated to determine whether existing systems needed improvements and to determine project design points for future systems.

Because the NP system provides primarily irrigation waters, only the peak day was analyzed (which represents peak irrigation season during the summer), using EPS. This is discussed further in **Section 4.2**. Please see **Section 1** for more information on the development of the peak month demands, and **Section 3** for more information on their allocation in the model.

Per the City's Specifications, the NP system must generally provide a pressure between 70 – 100 psi at all meters, and must maintain a velocity of less than 5 fps and headloss of less than 10 ft/1,000 ft in all pipes. While the City's Specifications say that irrigation mains can be as small as 4 inches, it was determined after conversations with the City that all future systems will be designed with a minimum pipe diameter of 8 inches. Additionally, it is considered a best practice to upsize the inlet pipe, from pond to wet well, in order to account for any additional expected demands. A recommended but not required design criteria is to design for less than 6 inches of headloss throughout the length of the pipe. For this NPMP, the inlets were designed for the 10 ft/1,000 ft headloss criteria, which will ensure that the total headloss remains below 6 inches as long as the inlet is less than 50 ft long.

NP pump stations must have a capacity of 120% of the peak hour, per the City's Specifications. The design flow of the future pumps was based on this parameter, and the design head for the future pumps was based on the pressure requirements throughout the modeled system.

Also per the City's Specifications, "ponds shall be sized to accommodate a minimum four (4) days of supply during peak irrigation periods, plus losses." For the NPMP, this means that storage requirements will be 4 times the peak day flow determined, plus 10% for evapotranspiration losses. While 10% losses was used for master planning purposes, developers should ensure that they incorporate calculated losses into their own storage calculations for a design-level report.

Table 5-1 summarizes the evaluation criteria.

Table 5-1 System Evaluation Criteria

Metric	Evaluation Criteria	Comments
Piping		
Pressure	70-100 psi	
Velocity	< 5 fps	
Headloss	< 10 ft / 1,000 ft	
Minimum Main Size	8 inches	Not specified in design criteria, City preference for future
Maximum Inlet Pipe Headloss	6 inches	Not specified in design criteria, good practice
Pumping		
Pumping Capacity	120% of peak hour	
Irrigation Window Assumed	10 hours / day	Not specified in design criteria. For irrigation-only pumps, does not apply to transfer pumps.
Pump Station Layout	No standby pump, however low flow pump required	
Ponds		
Storage Volume	4 times peak day + losses	
Daily Irrigation Application Rate	24 gpm/acre	Peak season metric used in the design of irrigation systems per the City's Specifications. This value is appropriate for areas where the exact irrigated acreage is known but is not appropriate for planning-level estimates of bulk undeveloped land.

5.2 Existing System Evaluation

The existing model was evaluated in both the InfoWater model and through various desktop analyses. The existing model helped identify concerns with pressure and velocity, while desktop analyses helped identify pumps that are at or over capacity and the pond design storage requirements. Existing deficiencies are summarized in **Table 5-2**, and a description of the recommended upgrades and solutions can be found later in this section. For more detailed information on the analysis results for the existing system, including recommended pond sizing, please see **Appendix D**.

The existing system evaluation was limited to the available data on pipe diameters and SCADA data. Refer to **Section 1** for more information about the background data, including the system inventory and SCADA data. Existing pump capacity was based O&M data such as pump curves, along with information from City operators.

The identified deficiencies included possible undersized inlet lines at some areas. However, the inlet pipe size should be confirmed in the field. Another commonly identified deficiency was that in some areas, while the main NP pipelines are sized correctly, the individual taps off to the irrigation systems (which can have diameters as small as 1 inch) are undersized. This produces high velocities and headloss. However, because there is only monthly data available at these taps, rather than hourly data, they may not be experiencing the high peak hours predicted by modeling based on SCADA readings at the pump station and may actually be appropriately sized. (For example, the hourly flows from the pump station have higher peaking factors than the small

diameter tap). If a customer notices low pressure, they may consider upsizing the tap off the mainline to mitigate this issue. Most pump stations (26 out of 34) were found to have sufficient capacity, even through buildout. However, increased NP irrigation adoption may lead to pump stations reaching capacity sooner than expected; flows should be continually monitored to note when pumps are getting close to capacity.

Table 5-2 Summary of Existing System Analysis

Service Area	Pump Station	Existing Capacity (gpm)	Existing Peak Hour Demand (gpm)	Buildout Flow – Peak Hour (gpm)	Comments and Identified Deficiencies
Balsam Park	N/A	290	51	51	No deficiencies were identified for this pump station.
Bella Romero Elementary	N/A	330	109	109	No deficiencies were identified for this pump station.
Bittersweet Park	N/A	1,000	854	1,160	Small diameter pipes may be producing high headloss; limited data is available on pipe sizes. Bringing on all potential conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each conversion area is brought on to ensure there is still sufficient capacity.
Boomerang	Boomerang North	1,500	769	769	No deficiencies were identified for this pump station.
	Boomerang South	1,500	694	0	This system is being replaced by the Boomerang Regional Pump Station.
	Boomerang Transfer	1,800	951	621	Some of the Boomerang transfer lines are undersized; this issue will be resolved by the construction of the Boomerang Regional Pump Station.
	Boomerang Regional Pump Station	3,260	N/A	2,716	<i>This new pump station is part of a larger redevelopment project and will replace the existing Boomerang South pump station. This pump station is identified as a CIP project.</i>
	North Ridge Transfer	1,800	936	936	No deficiencies were identified for this pump station.
	North Ridge School	2,700	1,205	1,752	No deficiencies were identified for this pump station.
	Poudre River Ranch	175	205	205	The lines to Poudre River Ranch and the pump station do not meet hydraulic design criteria but do not appear to hinder system performance. While there are no recommended changes, additional demand should not be added to this area without upsizing.
Cottonwood Park	N/A	115	69	69	No deficiencies were identified for this pump station.
Delta Park	N/A	95	52	52	No deficiencies were identified for this pump station.

Section 5 • Existing and Future System Model Evaluation

Service Area	Pump Station	Existing Capacity (gpm)	Existing Peak Hour Demand (gpm)	Buildout Flow – Peak Hour (gpm)	Comments and Identified Deficiencies
East Memorial	N/A	319	314	440	Bringing on all potential undeveloped and conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each new area is brought on to ensure there is still sufficient capacity.
Glenmere Park	N/A	180	135	304	The inlet may be undersized; inlet pipe size data was not available for this system. Bringing on all potential conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each conversion area is brought on to ensure there is still sufficient capacity.
Greeley West Park ¹	N/A	2,000	72	861	No deficiencies were identified for this pump station.
Highland Hills Golf	N/A	2,001	1,792	1,792	No deficiencies were identified for this pump station.
Island Grove and Saddle Club	Island Grove West	600	605	605	No deficiencies were identified for this pump station.
	Island Grove East	700	401	401	No deficiencies were identified for this pump station.
	Saddle Club	300	72	138	No deficiencies were identified for this pump station.
Jackson Field Sports	N/A	400	258	317	No deficiencies were identified for this pump station.
Josephine Jones Park	N/A	115	106	161	Bringing on all potential conversion areas may cause this pump station to be undersized after 2040. While no improvements are expected to be necessary before 2040, the system should be evaluated as each conversion area is brought on to ensure there is still sufficient capacity.
Linn Grove Cemetery	N/A	350	95	122	No deficiencies were identified for this pump station.
Luther Park	N/A	530	492	498	The small pipe diameter (4") at the outlet does not meet hydraulic design criteria; while this does not hinder system performance, it should be monitored as demands on the system increase to ensure the wet well is still able to receive sufficient water.
Madison Elementary and Houston Gardens	Houston Gardens	125	310	310	While this system appears to be operating over the pump design head, it does not hinder system performance, as this system is designed for low pressures.
	Madison Elementary	500	90	93	No deficiencies were identified for this pump station.

Service Area	Pump Station	Existing Capacity (gpm)	Existing Peak Hour Demand (gpm)	Buildout Flow – Peak Hour (gpm)	Comments and Identified Deficiencies
Monfort	N/A	2,400	1,423	1,745	The inlet is slightly undersized (10" diameter); while this does not hinder system performance, it should be monitored as demands on the system increase to ensure the wet well is still able to receive sufficient water.
Peakview Park	Mosier Hill	800	681	681	The pipes at Peakview Park have a small diameter (as low as 4") and do not meet hydraulic design criteria. Although this does not appear to significantly hinder system performance, the City may consider upsizing if other work is already being done in this area.
Promontory Park	Main	2,100	1,270	1,866	No deficiencies were identified for this pump station.
	Transfer	1,600	1,651	1,651	While this pump station sometimes operates slightly over its design flowrate, it is not significant enough to warrant upsizing. If additional demands in this area increase transfer station operations, expanding the length of time the transfer station operates each day will likely maintain an acceptable flowrate.
Ramseier	N/A	450	734	739	Additional evaluation of this site is needed as outlet pipe size and SCADA data were not available. While current modeling shows that the system is operating over the design head, the peaking factor may be lower than the system-wide diurnal curve, resulting in lower peak demands.
Sanborn Park	N/A	500	268	289	Small diameter lines may be causing high headloss; limited data is available on pipe sizes.
St. Michaels	N/A	1,120	1,121	1,167	This pump station may be undersized. Additional evaluation should be conducted to determine if demand management is effective and whether the pumps can be upsized without replacing the entire station.
Tech Center	N/A	N/A	N/A	N/A	This area is currently only served by a shoulder tap. A pump station is necessary to transition it to NP irrigation (future service area SA-14).
Youth Sports Center	Youth Sports	1,200	941	941	The inlet line does not meet hydraulic design criteria but does not appear to hinder system performance. This line should be evaluated as each new area is brought on to ensure there is still sufficient capacity.
	Twin Rivers Park	4,200	1,314	1,692	No deficiencies were identified for this pump station.

¹ Greeley West Park is planned for replacement before 2025. The values shown in the table represent the design for the new pump station.

5.3 Future System Evaluation by Planning Horizon

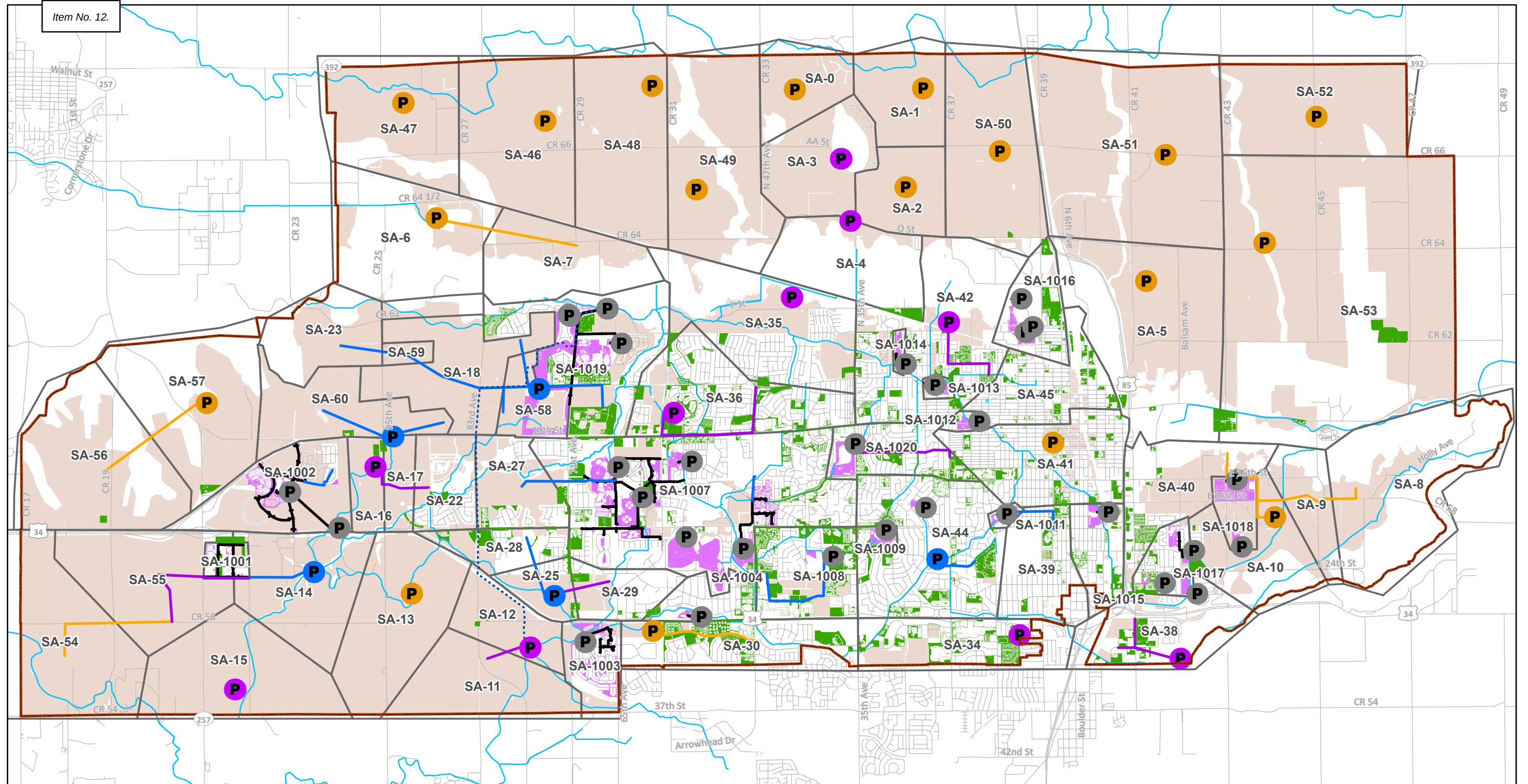
This section provides an overview of the preliminary results for sizing the pipes, pumps, and ponds to meet the design and evaluation criteria described above. For details on the sizing for each pump station, please see **Appendix E**. A map of all pump stations by planning horizon is shown in **Figure 5-1**. **Table 5-3** summarizes the proposed infrastructure (such as pipes and pump stations) by planning horizon. Only major piping (8 inches and larger) is accounted for in this plan. Detailed distribution piping will be per developer, City water and sewer department, and/or parks department plans. For some systems, it is expected that their pipelines will be expanded after construction as development occurs. For example, the pump station will be constructed to serve a smaller area, then the pipes will be expanded as development continues. It was assumed that pump stations will only be constructed after 20% of the potential buildout demand is met. The City should work with developers to determine best timing for construction of a new pump station as development projects become planned. All proposed projects described below were found feasible using the InfoWater methodology described in **Section 4**, but further design and confirmation is required for each system before construction.

Table 5-3 Proposed Infrastructure by Planning Horizon

Planning Horizon	Pump Stations ¹	Storage in Ponds (AF)	New Pipeline (ft) by Diameter					
			8-inch	10-inch	12-inch	16-inch	30-inch	Total
Existing	37	Unknown	23,100	17,600	12,200	3,400 > 12"		90,000
2025	5	35.1	21,800	18,500	0	19,000	26,700	86,000
2040	10	28.1	26,900	11,500	0	8,200	0	46,600
Buildout	18	75.7	28,300	1,000	200	14,800	0	44,300
Total New	33	139.0	77,000	31,000	200	42,000	26,700	150,200

¹ All new pump stations are expected to have a pond.

All existing and planned future pump stations are shown in **Figure 5-1**. Pump station locations and pipeline alignments are approximate and schematic.



Legend

LREGA

Existing NP Irrigated Areas

Future NP Demand Parcels

Greeley Ditch

Existing Pump Station

2025 Pump Station

2040 Pump Station

Buildout Pump Station

Existing NP Pipes

2025 Proposed NP Pipes

2040 Proposed NP Pipes

Buildout Proposed NP Pipes

Upper Equalizer Project

Conversion Areas

Service Areas



Recommended Capital Improvements

Figure 5-1

Greeley Non-Potable Water System Master Plan

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5.3.1 2025 System Evaluation

The 2025 planning horizon includes improvements to the existing system. The improvements include new pump stations in areas that are already developed (but may experience conversion or infill) and new pump stations in areas that are expected to develop by 2025, especially planned developments. In total, 4 new pump stations are expected by the 2025 planning horizon. Please see **Table 5-4** and **Appendix E** for detailed information on these pump stations. The following are notable projects that are expected to be completed by 2025:

- Upper Equalizer Project¹. This project will expand NP service further into the shoulder seasons by transferring water from the Greeley Irrigation Company (GIC) to the GLIC ditches. The proposed piping will be routed along 83rd Avenue.
- Boomerang Regional Pump Station. This project will be part of a larger project, which involves redevelopment of the southern 9 holes of the Boomerang Golf Course, construction of a new school, and residential development. The piping from the Boomerang Regional Pump Station is expected to serve far to the west, including past 95th Avenue.
- Upsizing of the Greeley West pump station to serve the Centerplace development, as well as other conversion and infill areas.
- Construction of a pump station to serve the Tech Center and adjacent undeveloped areas.
- Expansion of piping (new pipeline) from Glenmere Park along 8th Avenue to serve additional conversion and infill areas.
- Expansion of piping (new pipeline) from Promontory Park along 16th Street to serve newly developing areas.
- Expansion of piping (new pipeline) from Monfort along 47th Avenue to serve additional conversion and infill areas.
- Expansion of piping (new pipeline) from Twin Rivers Park to the west to serve additional conversion and infill areas.

5.3.2 2040 System Evaluation

The 2040 planning horizon includes 12 new pump stations, primarily in areas that are currently undeveloped. In particular, eight new pump stations are expected in the North of the River area due to potential NP demands through that area starting after 2025. However, very limited development is expected in this area until full buildout. The City may consider constructing the NP distribution pipe system but waiting to put in pump stations until there is further development in the area, similar to how the Tech Center was constructed. The following are notable projects that are expected to be completed between 2025 and 2040:

¹ Supply-side projects such as the Upper Equalizer Project were not studied as part of the NPMP, which was focused on the expansion of the distribution system.

- Westward expansion of pipelines from the Tech Center. It is expected that the southernmost 6 inch existing NP lines along the southern edge of the Tech Center are not sized large enough to handle the additional flows and will need to be either upsized or paralleled. The City may decide to complete this project when the new SA-14 pump station is constructed, depending on future development.
- Construction of a regional pump station west of St. Michaels (Cobblestone Regional).

Table 5-4 and **Appendix E** summarize these and other projects.

5.3.3 Buildout System Evaluation

The buildout planning horizon includes 19 new pump stations in areas that are either not expected to have any development, or have less than 20% development, until after the year 2040. The locations of these pump stations were based on even spacing throughout the LREGA, in coordination with the City's parks department. These locations are not final and should be coordinated with the construction of new parks or open spaces, where the ponds can serve as an amenity. **Table 5-4** and **Appendix E** summarize these and other projects.

Table 5-4 Future System Information

Pump Station Name	Planning Horizon	Pump Station Design		PS Outlet Size (in)	Pond Size (AF) ¹
		Flow (gpm)	Head (ft)		
SA-14	2025	3500	230	16	13.4
SA-25	2025	640	160	8	2.4
SA-44	2025	660	160	8	2.5
SA-60	2025	1120	200	10	4.2
Boomerang Regional PS	2025	3260	170	16	12.5
SA-3	2040	620	160	8	2.3
SA-4	2040	240	180	8	0.9
SA-12	2040	1160	210	10	4.4
SA-15	2040	1400	170	10	5.3
SA-16	2040	1040	180	10	4.0
SA-34	2040	560	170	8	2.1
SA-35	2040	620	160	8	2.3
SA-36	2040	900	170	8	3.4
SA-38	2040	160	180	8	0.5
SA-42	2040	720	180	8	2.7
SA-0	2075	780	170	8	3.0
SA-1	2075	780	170	8	3.0
SA-2	2075	660	180	8	2.5
SA-5	2075	620	170	8	2.4
SA-6	2075	360	180	8	1.4
SA-10	2075	1000	170	10	3.8
SA-13	2075	1220	170	10	4.6
SA-30	2075	440	155	8	1.7

Pump Station Name	Planning Horizon	Pump Station Design		PS Outlet Size (in)	Pond Size (AF) ¹
		Flow (gpm)	Head (ft)		
SA-41	2075	1120	160	10	4.3
SA-46	2075	1120	160	10	4.2
SA-47	2075	960	170	10	3.7
SA-48	2075	1040	170	10	4.0
SA-49	2075	1120	170	10	4.2
SA-50	2075	1540	170	12	5.9
SA-51	2075	2500	180	16	9.6
SA-52	2075	1300	170	10	5.0
SA-53	2075	1820	170	12	6.9
SA-57	2075	1480	200	16	5.7

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Section 6

Capital Improvement Plan

6.1 Approach to CIP Development

This Section builds on the capital improvement projects identified in **Section 5** at the 2025 and 2040 planning horizons and defines the approach for development of the 5-year and 20-year CIPs. The identified CIPs were developed with consideration of the City's current and long-range population as well as projected flows, using currently available information. Conditions will change with time and uncertainties will impact the accuracy of each plan in later years. As projects come closer to implementation, it is important that the City reevaluate each CIP to better reflect costs.

This section provides planning level cost estimates for capital improvement project scheduling. Major capital elements are itemized with unit prices. Information from past projects and outside resources, both locally and nationwide, were relied upon to develop unit prices for major capital categories. CIP projects were developed using pipeline quantity estimates and modeling data. GIS mapping was used to identify areas of interest, such as utilities and road crossings. The unit prices were then multiplied by the quantity of each element. Project elements that are difficult to estimate during the planning stage are included in the overall cost as either allowances or as a percentage of the total for the itemized project elements. During design development, the more specific data will be used to inform the design and resulting project cost estimate.

6.2 Cost Development

Unit costs were developed to aid in CIP budgeting, as described below. Cost estimating is considered Association for the Advancement of Cost Engineering (AACE) Class 5 – Conceptual engineering phase.

6.2.1 Project Implementation and Additional Project-Related Costs

Apart from the unit costs used to build-up project material costs (e.g., pipes, pumps, and ponds), several other elements were added as factors. Construction factors include items such as erosion control/stormwater pollution prevention and contractor mobilization and demobilization. These costs are estimated as a percentage of the construction unit costs. Contingency is applied to the subtotal of these construction cost elements to account for variations in unit prices or quantity estimates. Programmatic elements such as engineering, permitting, legal, and administration are estimated as a percentage of the construction cost. **Table 6-1** provides a breakdown of the assumptions used for project implementation and contingency.

Table 6-1 Costing Factors for Construction Bid and Total CIP Project Costs

Category	Item	Costing Factor
Construction Bid Cost (includes infrastructure and contractor overhead, profit, bonds, and insurance)	Erosion Control/Stormwater Pollution Prevention ¹	2%
	Mobilization and Demobilization ¹	5%
	Contingency ²	35%
Project Implementation ³	Feasibility and Site Studies	9% for OPCC ≤ \$1 million 6% for OPCC of \$1 million to \$10 million 5% for OPCC > \$10 million
	Preliminary and Final Design	9% for OPCC ≤ \$1 million 6% for OPCC of \$1 million to \$10 million 5% for OPCC > \$10 million
	Engineering Services During Construction	5%
Additional Project-Related Costs ³	Outside Construction Management - not used if OPCC value is < \$1M	5%
	Outside Project Management - not used if OPCC value is < \$1M	3%

¹ Construction bid cost costing factors erosion control/stormwater pollution prevention and mobilization and demobilization are applied to the subtotal of unit cost items.

² Contingency costing factor is 35% of the subtotal of the unit cost items, erosion control/stormwater pollution prevention, and mobilization and demobilization.

³ Project implementation and additional project-related cost factors are applied to the total construction cost.

6.2.1.1 Erosion Control/Stormwater Pollution Prevention

Project erosion control and stormwater pollution prevention includes the contractor's cost to manage the stormwater during construction through best management practices such as silt fences, rock socks, vehicle tracking, and silt prevention at storm inlets. This category is assumed as 2% of the unit costs and is based on estimator's judgement. This costing factor is added to calculate project OPCC totals.

6.2.1.2 Mobilization and Demobilization

Contractor Mobilization and Demobilization includes the contractor's start-up costs and close-out costs. Start-up costs include items such as moving equipment and personnel to the project location, obtaining permits and bonds, etc. Close-out costs include items such as project cleanup, moving equipment and personnel from the project location, etc. The mobilization and demobilization category is estimated as 5% of the unit costs and is based on estimator's judgement. This costing factor is added to calculate project OPCC totals.

6.2.1.3 Contingency

During the planning phase, the design and field work has not yet been completed for the projects. Therefore, the cost development relies on estimated quantities for each construction element. Project contingency provides for these uncertainties by adding additional costs to the project total. The contingency at the planning level is typically 35% of the OPCC subtotal after the erosion

control/stormwater pollution prevention and mobilization and demobilization costing factors have been included. Project contingency also provides for costs associated with items that are difficult to itemize at a planning level.

6.2.1.4 Feasibility and Site Studies

This cost element includes the planning and field investigations (such as geotechnical, survey, ground sampling, subsurface utility engineering [SUE] and locates, etc.) that are required to implement a project. These are estimated as a percentage of the subtotal of the previous elements and the percentage varies based on the OPCC, plus cost contingency.

6.2.1.5 Preliminary and Final Design

The preliminary and final design cost element includes the cost for engineering services to develop biddable plans and specifications in accordance with applicable standards. This cost is estimated using a percentage of the OPCC, plus cost contingency.

6.2.1.6 Engineering Services During Construction

Engineering services during construction includes the review of contractor submittals, requested changes, and design adjustments that may be required during construction. A percentage of the OPCC is used to estimate this cost element.

6.2.1.7 Additional Project-Related Costs

Outside construction and project management are estimated for projects that are not directly managed by the City. For purposes of this master plan, only projects in excess of \$1 million were assigned these cost elements.

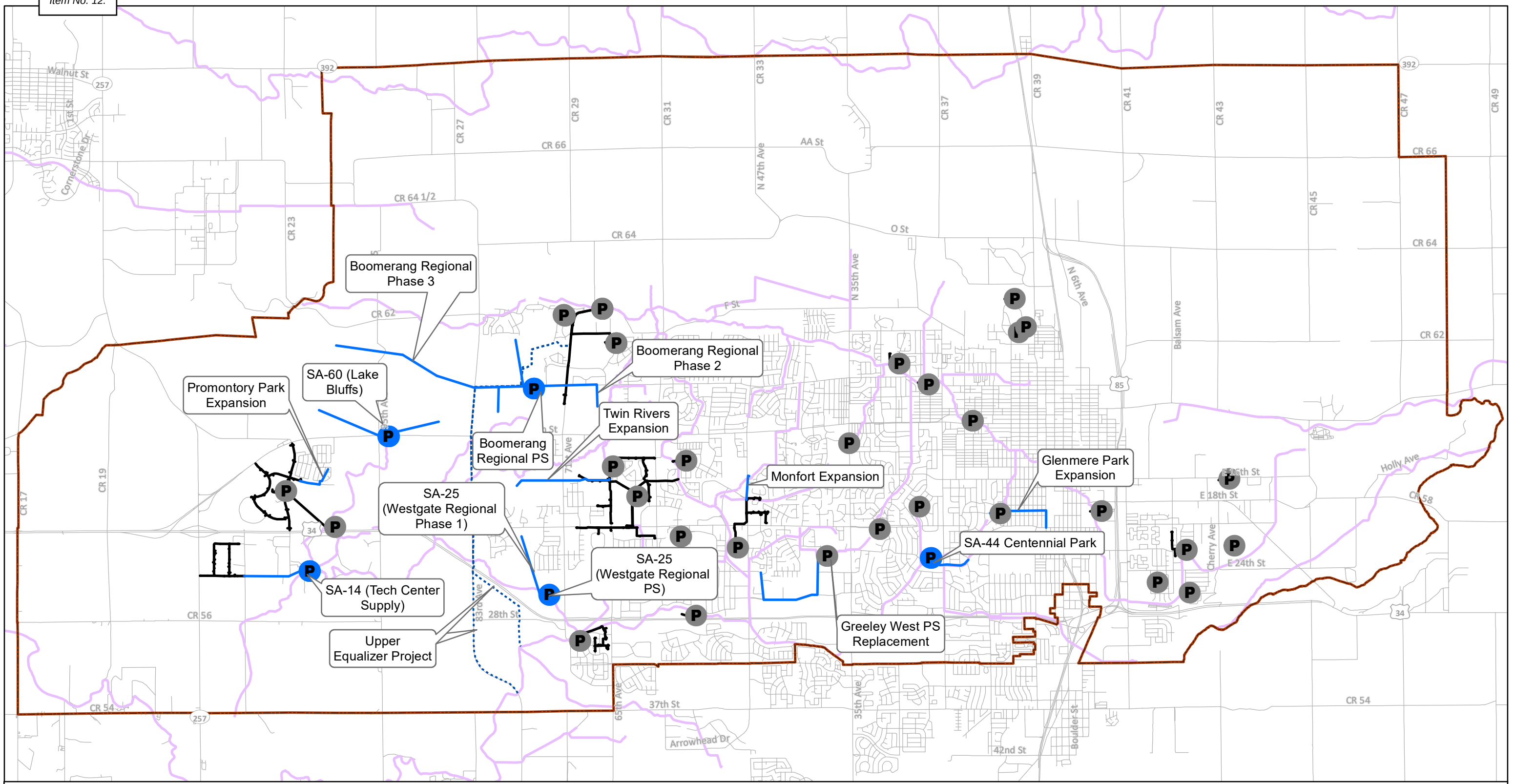
6.3 Identified CIP Projects

Projects are forecast over 5-years (for projects for 2022 through 2025) and 20-years (for projects for 2026 through 2040). Projects were named based on geographic location and service area number. Construction and total project costs were developed for the projects and are described in the following figures and tables.

Figures 6-1 and **6-2** illustrate the locations of the identified projects within the 5-year and 20-year CIPs respectively. For development driven projects, the City will negotiate with developers the cost difference for the installation of a larger pipe diameter or for additional pipe lengths to meet future needs versus the developer's needs.

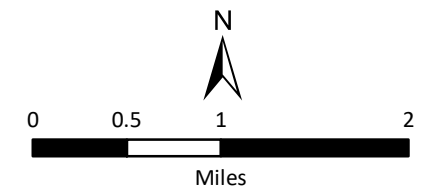
Table 6-2 provides a summary of project drivers. This summary identifies a driver as an existing deficiency or population growth driven, and also whether the project is proposed to be constructed by the City's water and sewer department, the City's parks department, or by developers. In many cases, project costs may be shared between some or all of these three entities. It is assumed that costs will be divided proportionately, based on future demands. Stakeholders for any given NP project should collaborate to develop cost sharing for projects that would mutually benefit all responsible parties.

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Legend

- LREGA
- Existing Pump Station
- 2025 Pump Station
- Existing NP Pipes
- 2025 Proposed NP Pipes
- Greeley Ditch
- Upper Equalizer Project



Recommended 5 Year Improvements
Figure 6-1
Greeley Non-Potable Water
System Master Plan

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Table 6-2 Project Information

Projects	Project Driver	Funding Source ¹	Planning Start Year ²	Design Start Year ²	Construction Start Year ²	OPCC ³	Total Cost ³	City of Greeley Water/Sewer	City of Greeley Parks	Development
5-Year Planning Horizon										
SA-44 Centennial Park	Service Expansion	W/S, Parks, Dev	2020	2021	2022	\$4,020,000	\$5,030,000	\$3,488,100	\$1,379,300	\$162,600
Boomerang Regional Pump Station	Service Expansion	W/S, Parks, Dev	2021	2021	2022	\$5,530,000	\$6,920,000	\$221,300	\$694,000	\$6,004,700
Boomerang Regional Phase 2	Service Expansion	W/S, Parks, Dev	2021	2021	2022	\$1,830,000	\$2,390,000	\$76,400	\$239,700	\$2,073,900
Greeley West Pump Station Replacement	Service Expansion	W/S, Dev	2021	2022	2023	\$5,970,000	\$7,470,000	\$6,161,400	-	\$1,308,600
Upper Equalizer Project	Shoulder Season Extension	W/S	2022	2023	2024	\$20,010,000	\$25,620,000	\$25,620,000	-	-
SA-14 Tech Center Supply	Service Expansion	W/S, Dev	2024	2025	2026	\$4,560,000	\$5,930,000	\$17,100	-	\$5,912,900
Promontory Park Expansion	Service Expansion	Development	2024	2025	2026	\$580,000	\$720,000	-	-	\$720,000
Monfort Expansion	Service Expansion	W/S, Parks, Dev	2024	2025	2026	\$400,000	\$500,000	\$245,300	\$76,000	\$178,700
Twin Rivers Expansion	Service Expansion	W/S, Parks, Dev	2024	2025	2026	\$1,830,000	\$2,390,000	\$1,172,400	\$363,300	\$854,300
SA-38 1st Ave Pond	Service Expansion	W/S, Dev	2024	2025	2026	\$2,760,000	\$3,590,000	\$2,881,600	-	\$708,400
SA-25 Westgate Regional Pump Station	Service Expansion	W/S, Parks	2025	2026	2027	\$2,130,000	\$2,670,000	\$2,038,415	\$631,585	-
SA-25 Westgate Regional Phase 1	Service Expansion	Dev	2025	2026	2027	\$900,000	\$1,160,000	-	-	\$1,160,000
SA-60 Lake Bluffs	Service Expansion	W/S, Dev	2025	2026	2027	\$4,650,000	\$6,050,000	\$57,000	-	\$5,993,000
5-Year Subtotal						\$55,170,000	\$70,440,000	\$41,979,015	\$3,383,885	\$25,077,100
20-Year Planning Horizon										
SA-34 30th St/17th Ave	Service Expansion	W/S, Parks, Dev	2027	2028	2029	\$2,300,000	\$2,880,000	\$1,932,500	\$281,200	\$666,300
Boomerang Regional Phase 3	Service Expansion	W/S, Parks, Dev	2028	2029	2030	\$6,150,000	\$8,000,000	\$255,900	\$802,300	\$6,941,800
SA-4 35th Ave/O St	Service Expansion	W/S, Dev	2028	2029	2030	\$1,000,000	\$1,170,000	\$262,400	-	\$907,600
SA-3 35th Ave/AA St	Service Expansion	Development	2029	2030	2031	\$1,750,000	\$2,190,000	-	-	\$2,190,000
Bittersweet Park Expansion	Service Expansion	W/S, Parks, Dev	2029	2030	2031	\$2,520,000	\$3,160,000	\$2,475,181	\$684,819	-
SA-35 44th Ave/F St	Service Expansion	W/S, Parks, Dev	2030	2031	2032	\$2,060,000	\$2,580,000	\$166,000	\$658,300	\$1,755,700
SA-36 59th Ave/10th St	Service Expansion	W/S, Parks, Dev	2031	2032	2033	\$6,550,000	\$8,190,000	\$3,810,800	\$2,569,500	\$1,809,700
SA-16 95th Ave/16th St	Service Expansion	W/S, Parks, Dev	2034	2035	2036	\$4,040,000	\$5,260,000	\$205,300	\$610,300	\$4,444,400
SA-14 Tech Center Expansion	Service Expansion	W/S, Dev	2035	2036	2037	\$2,660,000	\$3,460,000	\$10,000	-	\$3,450,000
SA-15 37th St/SH-257 Pump Station	Service Expansion	Development	2036	2037	2038	\$3,100,000	\$3,880,000	-	-	\$3,880,000
SA-12 Cobblestone Regional	Service Expansion	W/S, Dev	2037	2038	2039	\$3,270,000	\$4,260,000	\$48,500	-	\$4,211,500
Glenmere Park Expansion	Service Expansion	W/S, Parks, Dev	2037	2038	2039	\$1,690,000	\$2,200,000	\$1,427,916	\$603,228	\$168,856
SA-25 Westgate Regional Phase 2	Service Expansion	W/S, Dev	2038	2039	2040	\$950,000	\$1,220,000	\$857,400	-	\$362,600
SA-42 23rd Ave/NW C St	Service Expansion	W/S, Parks, Dev	2039	2040	2041	\$4,630,000	\$6,030,000	\$2,513,300	\$1,421,100	\$2,095,600
20-Year Subtotal						\$42,670,000	\$54,480,000	\$13,965,198	\$7,630,746	\$32,884,056
Total						\$97,840,000	\$124,920,000	\$55,944,212	\$11,014,631	\$57,961,156

August 2020 dollars as adjusted by ENR-CCI were used for project OPCCs, total costs, and project fund allocations – City of Greeley Water and Sewer Department, City of Greeley Parks Department, and Development.

¹ W/S: City of Greeley water and sewer department, Parks: City of Greeley parks department, Dev: Development

² Project planning, design, and construction years are subject to change pending future project updates, development of projects, and/or schedule changes.

³ OPCC and total costs per project are subject to change pending future project updates, development of projects, and/or schedule changes.

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6.4 CIP Implementation Schedule

Projects identified in the 5-year and 20-year planning horizons were given projected planning, design, and construction start years to help the City schedule project implementation. Annual fiscal requirements from 2021 through 2042 are shown in **Figure 6-3**.

For scheduling purposes, 5-year improvements were identified from 2022 through 2027, based on design start year, while 20-year improvements were identified from 2028 through 2042. NP projects are usually considered lower priority than water, sewer, or transportation projects so they were generally moved in time to match other nearby projects. It was assumed that each stage (planning, design, and construction) will take at least one year with the construction phase taking two, three, or four years if the total CIP cost for a project was greater than \$1 million, \$5 million, or \$10 million, respectively.

Estimated start years for each planning horizon were adjusted based on the following factors:

- Water and Sanitary Sewer Improvements. When applicable, start years of NP projects were adjusted to align with major water and sanitary sewer improvements.
- Transportation Improvements. When applicable, start years were adjusted to coincide with major transportation improvements identified as part of the City's Keep Greeley Moving Phase 2 initiative (City of Greeley, 2021).
- Scheduling. When applicable, start years were adjusted based on needed prioritization of projects.
- Funding. Projects were staggered as needed to balance funding requirements.

If a project start year was shifted, the project is left within its original 2025 or 2040 planning horizon for modeling and analysis purposes but will appear in the correct 5- or 20-year CIP total. Note that the Upper Equalizer Project has major outlays between 2024 and 2028 resulting in higher CIP budgets over that timeframe.

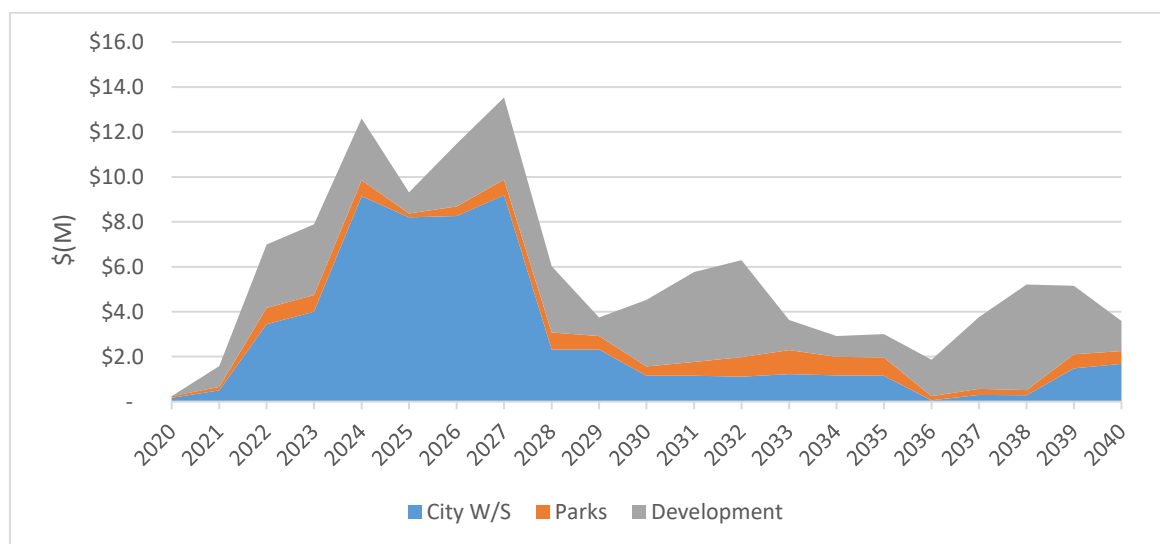


Figure 6-3 Annual NP Funding Projections by Fund

CIP costs are August 2020 dollars from ENR-CCI.

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Section 7

Findings and Recommendations

The findings and recommendations summarized in this section have been drawn from the planning and evaluation sections of this NPMP. The recommendations identify system needs, actions, and capital improvements through the buildout planning horizon. However, the actual implementation time frame will depend on actual growth rates, order of development, and the level of available capital funding. Additionally, the actual scope and implementation of these recommendations may vary with detailed planning and design.

7.1 Key Findings

Key findings identified as part of the NPMP include the following:

- Discussions with other Front Range stakeholders revealed that the City has a unique and advanced NP irrigation system, particularly for raw water suppliers. For more information, see **Section 2.1**.
- Historically, comprehensive data collection has often been difficult for the NP system. Additional studies or data collection, along with more standardized record keeping practices, can help the City keep track of the overall system. Record keeping practices could include recording ditch laterals in GIS, updating and enforcing construction drawing standards, creating a system for regularly updating the NP GIS database, and/or installing SCADA systems. For more information, see **Section 2.4** and **Section 2.5**.
- Review of historical demands showed that NP usage varies annually by significant amounts. In particular, demand dropped significantly as parks transitioned to improved control systems. Future NP demands are expected to come from two sources: 1) undeveloped lands that will use NP irrigation when they develop, and 2) existing areas that will convert to NP irrigation, referred to as conversion areas. NP peak season demands are expected to increase by 1.1 MGD by 2025, 2.8 MGD by 2040, and 11.5 MGD by buildout. NP adoption is strongly influenced by policy, which is a key conservation measure. For more information, see **Section 3**.
- Some of the existing systems were identified as needing improvement, but no critical deficiencies were identified. These include areas that are expected to have undersized inlet lines, pipes, or pumps by buildout. For more information, see **Section 5.2**.
- New recommended CIP projects were identified. These primarily consist of new pump stations or expansions of existing pipe systems to serve new areas and customers. New pump stations will be constructed primarily by development. It is estimated that the system will need 4 new pump stations by 2025, 12 new pump stations between 2025 and 2040, and 19 new pump stations between 2040 and buildout. For more information, see **Section 5.3**.

7.2 Recommendations

The recommendations for the NPMP include the following:

- Implement and enforce an NP policy to promote and expand NP irrigation practices. It is recommended for this policy to mandate that new developments and redevelopments use NP irrigation and for the policy to generally encourage the growth of the NP system.
- Consider implementing improved operational practices at existing pump stations either when it becomes necessary, or during other construction, such as rehabilitating a park irrigation system. This can include increasing the watering window to reduce peak hour demands by decreasing the size of irrigation zones and implementing SCADA where not currently installed. It is recommended for customers to use a watering window of 10 hours a day, where possible, and to use the best landscaping practices included in **Appendix F**.
- Create new standards for data collection and record keeping. This can include enforcing standards related to construction record drawings, developing and maintaining an internal record-keeping system, creating a plan for regularly updating the GIS database, and/or implementing a CMMS for NP infrastructure. It is also recommended for the City to conduct a study of ditches and laterals throughout the LREGA, and/or require developers to include this data in their plans.
- Implement and enforce requirements for the installation of SCADA systems at new or rebuilt pump stations. The City may consider including SCADA requirements in the City's Specifications.
- Continue monitoring and recording demands and pump station flows to identify major changes in operations that may impact system performance.
- Continue maintenance of the InfoWater model. This can include adding new pipes, deleting abandoned pipes, tracking open and closed valves, and reflecting operational changes as the system continues to expand.
- Evaluate the St. Michaels pump station to determine whether additional construction is needed at this site to meet higher demands. This evaluation should determine whether demand management could be an effective solution, and whether the pumps can be upsized without replacing the entire pump station.
- Coordinate this NPMP with other relevant planning documents, such as the WTDMP, SSMP, *Imagine Greeley Comprehensive Plan*, and BBC report. It is recommended to use this NPMP as a guide for infrastructure planning and to use the BBC report as a guide for water resources planning.
- Continue building the NP system through a hub-and-spoke approach. Consider looping or connecting systems where systems are on similar hydraulic grade lines and looping would improve operational flexibility.

- In areas with limited or interim development, require the construction of NP infrastructure, such as piped irrigation system, even if a pump station will not be constructed until later.
- New pipe and pump station layouts are conceptual in nature and are primarily intended to show hydraulic feasibility for master planning purposes. Conduct a detailed evaluation of pipe alignment and size, and pump station location and sizing as projects move into design and implementation stages when there is more certainty of development and design criteria. The InfoWater model can be used as a tool to support future planning decisions, if regularly maintained.
- Complete the capital improvements recommended in **Section 6**, prioritizing the 5-year CIP recommended projects. Coordinate closely with the City's parks department, other utilities, and developers to regularly update the scheduling of these projects. The City should consider using the InfoWater model as a tool to inform developer plans while coordinating with them.
- Update the NPMP every 5 years, including reevaluating demand and population projections every 5 to 10 years. Planning assumptions made for the NP system in the next 20 years and beyond is subject to change with time.

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Section 8

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Appendix A

Field Inventory Summaries

The following table summarizes the infrastructure identified and recorded as part of the field inventory conducted for the NPMP.

Asset Type	Number of Items Surveyed
Air release valve	19
Augmentation water discharge	1
Backflow preventer	1
Blow off	57
Control panel building	1
Curb stop valve	13
Ditch-point	14
Drain valve	7
Flume level sensor	1
Flush pit	3
Head gate	24
Manhole	4
Meter	131
Pond	20
Pressure release valve	1
Pump	71
Settling vault	1
Tracer wire	38
Truck fill	2
Valve	263
Weir	6
Well	9

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Appendix B

Naming System

The following table captures the naming system used to record infrastructure identified as part of the field inventory for the NPMP.

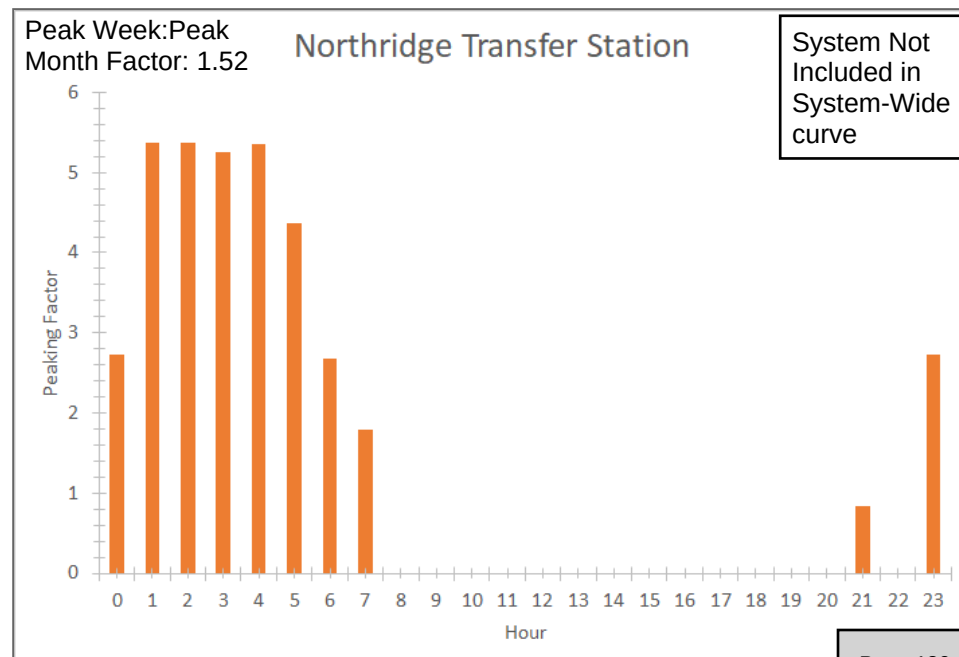
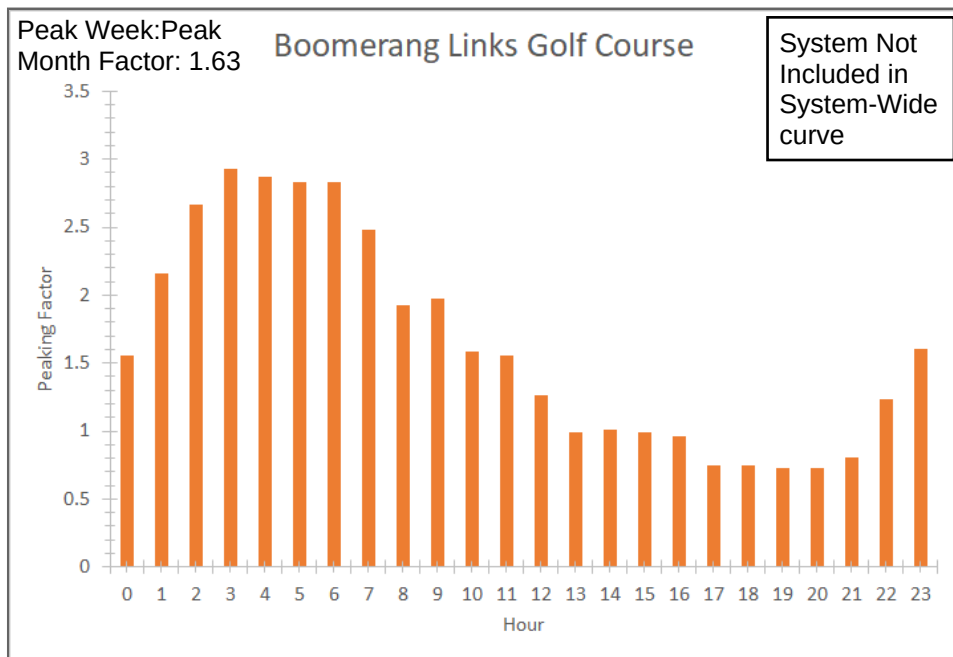
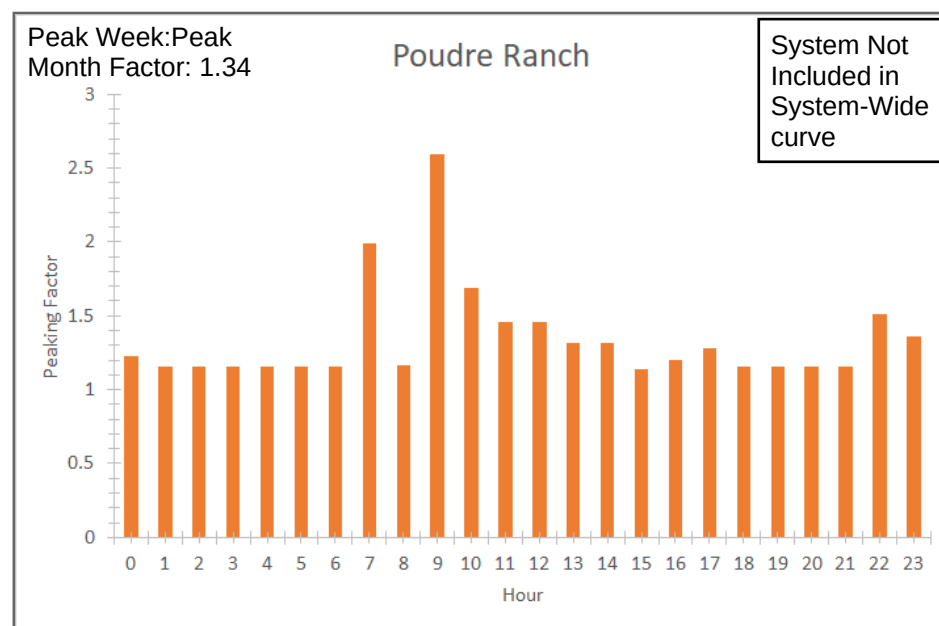
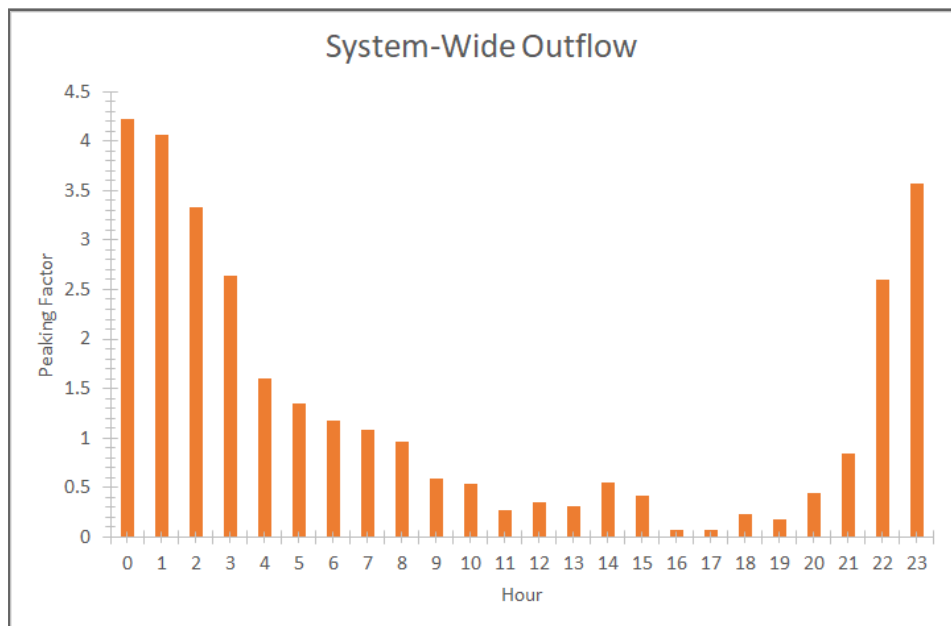
System	Location	Asset Type
NP-Non-Potable Water	BG-Boomerang Golf	WEL-Well
	BP-Bittersweet Park	MET-Meter
	BS-Balsam Sports	PMP-Pump
	CW-Cottonwood Park	VAL-Valve
	DP-Delta Park	FPT-Flush Pit
	EM- East Memorial	HGT-Head gate
	GM-Glenmere Park	MNH-Man Hole
	GW-Greeley West Park	FLF-Filter Flush
	HH-Highland Hills Golf	PND-Pond
	IG- Island Grove Park	PPL-Pump Panel
	JF-Jackson Field Sports	TKF-Truck Fill
	JJ-Josephine Jones Park	TRW-Tracer Wire
	LG-Linn Grove	SVT-Settling Vault
	LP-Luther Park	ARV-Air Relief Valve
	ME-Madison Elementary	CSV-Curb Stop Valve
	MF-Monfort Elementary	BOF-Blow Off
	NR-North Ridge School	PRV-Pressure reducing valve
	PM-Promontory Park	WER- Weir
	PP-Poudre Ponds	BFP-Backflow Preventor
	PV-Peak View Park	BDT-Boyd Ditch
	RE- Romero Elementary	ADS-Augmentation Discharge
	RP-Ramseier Park	
	SM-Saint Michaels	
	SP-Sanborn Park	
	TC-Tech Center	
	WP-Waggin Tail Dog Park	
	YS-Youth Sports Complex	
	TR-Twin Rivers Park	

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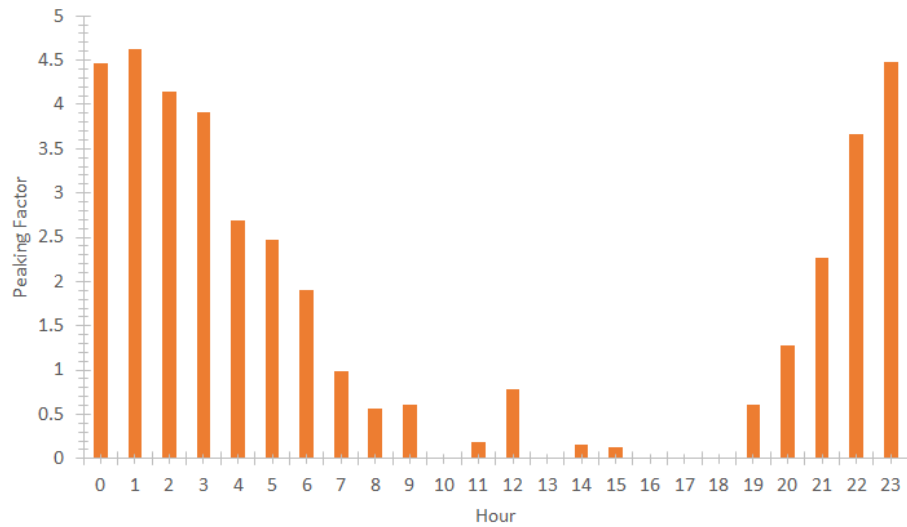
Appendix C

Individual Diurnal Curves

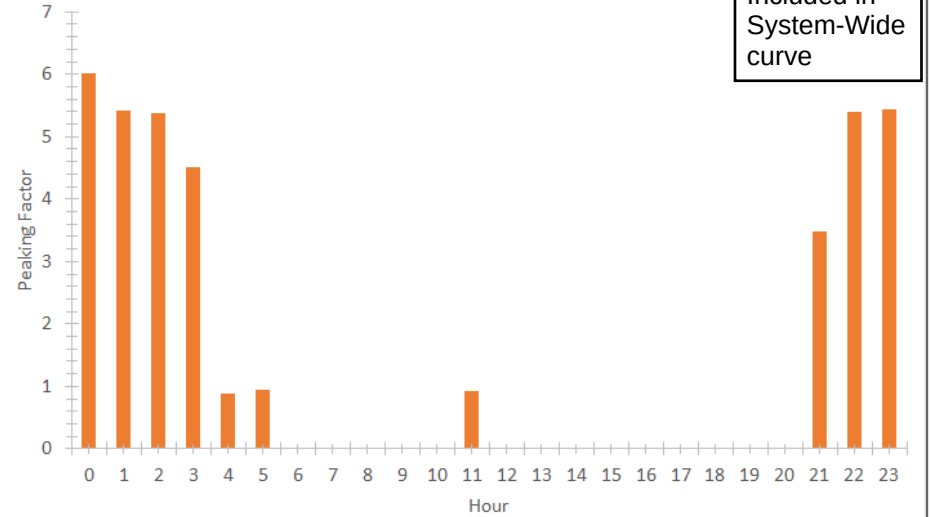
The graphs shown below are diurnal curves for each of the individual existing systems, where SCADA data was available. Each curve has a unique peak week : peak month factor and was based on the system's peak week (during July and August 2018 and 2019). Operational changes may improve individual system performance by flattening demand during periods of use while reducing peak demand factors. Such changes could result in downsizing future pipelines and pumps and potentially reducing future operating costs without changing future maximum month demands. It should be noted that current demand patterns are largely driven by end user choices, such as vegetation, watering schedule and duration, irrigation system configuration, and irrigation controls, as well as future weather conditions. Any or all of these factors could change in the future.



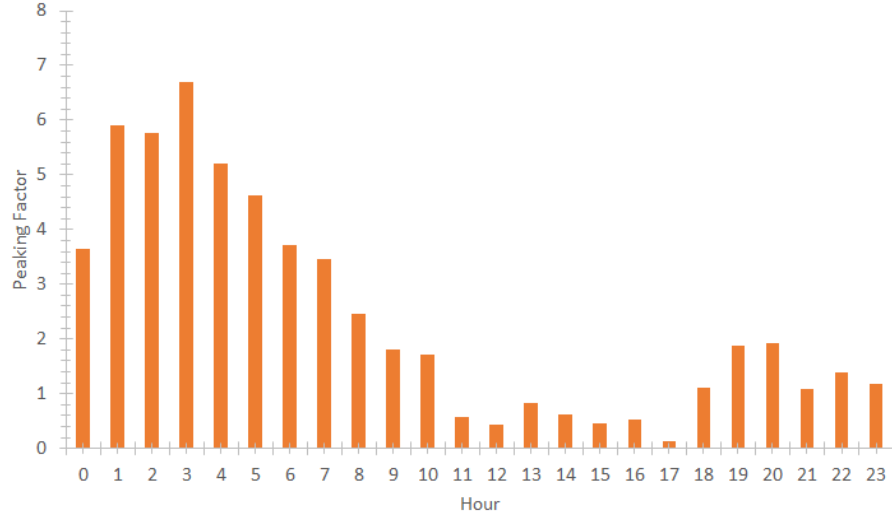
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Month Factor: 1.66 Promontory Pump Station



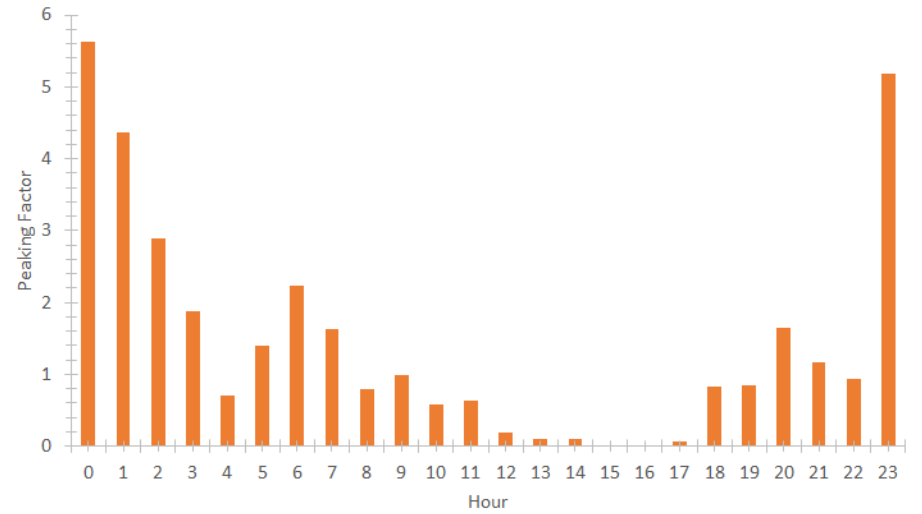
Peak Week:Peak
Month Factor: 1.60 Promontory Transfer Station



Peak Week:Peak
Month Factor: 2.38 St. Michaels

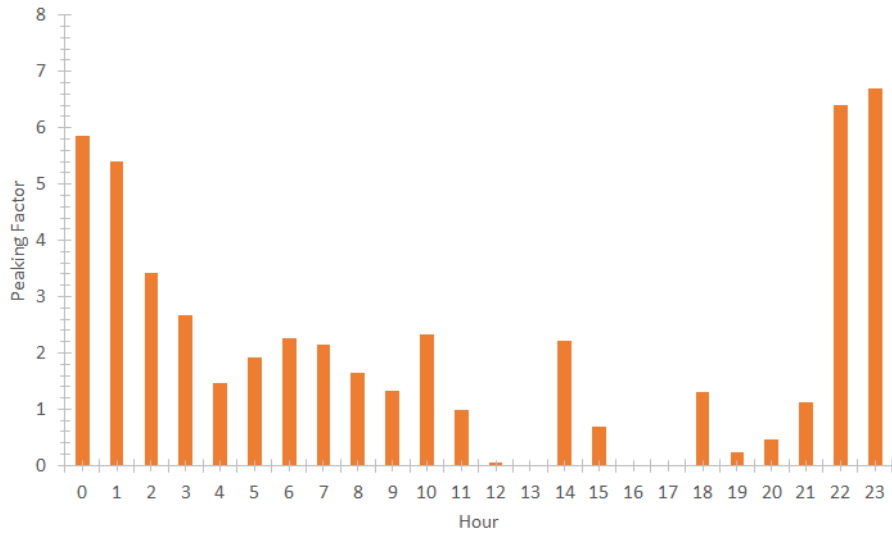


Peak Week:Peak
Month Factor: 1.45 Youth Sports



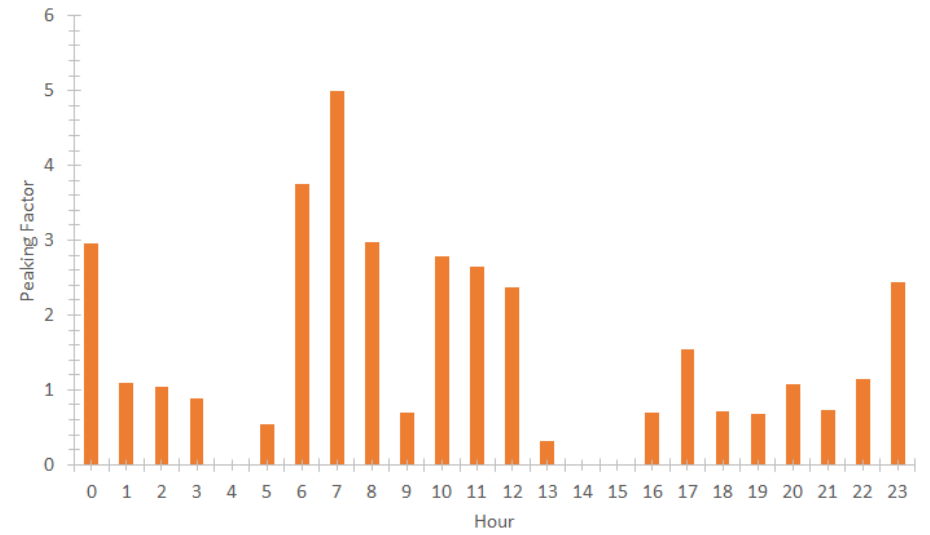
Peak Week:Peak
Month Factor: 2.11

Monforts



Peak Week:Peak
Month Factor: 1.50

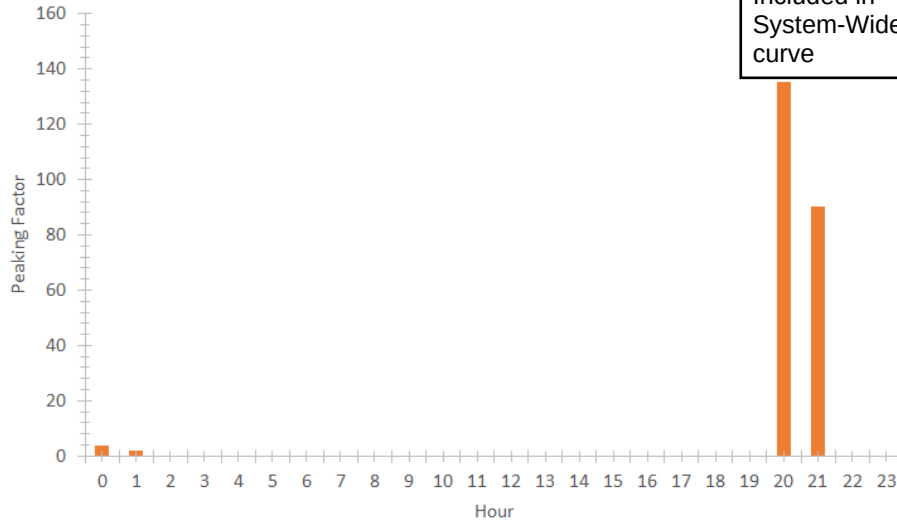
Mosier Hill



Peak Week:Peak
Month Factor: 9.64

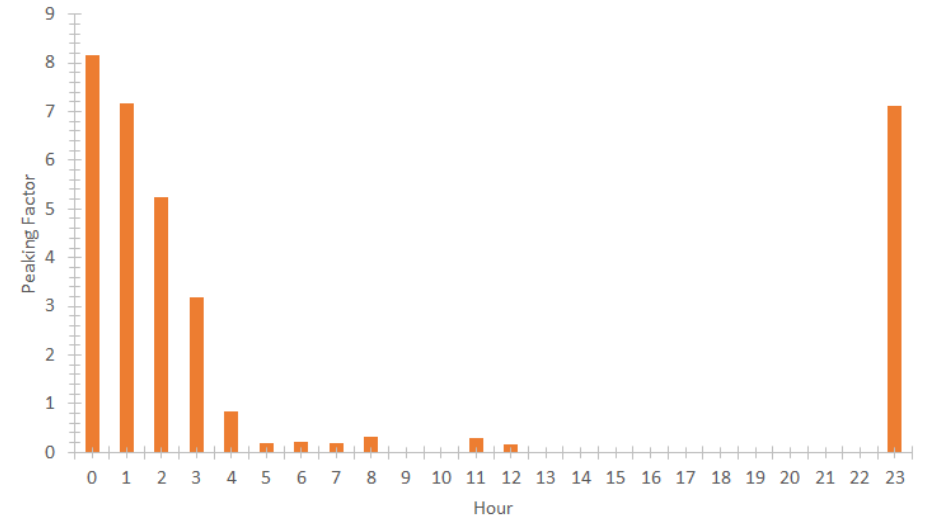
Stonney Brook

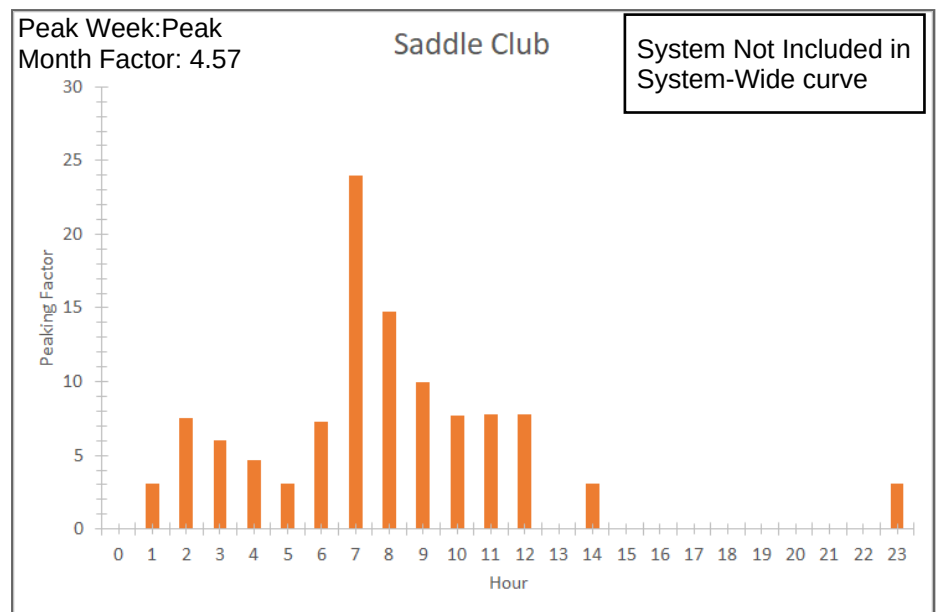
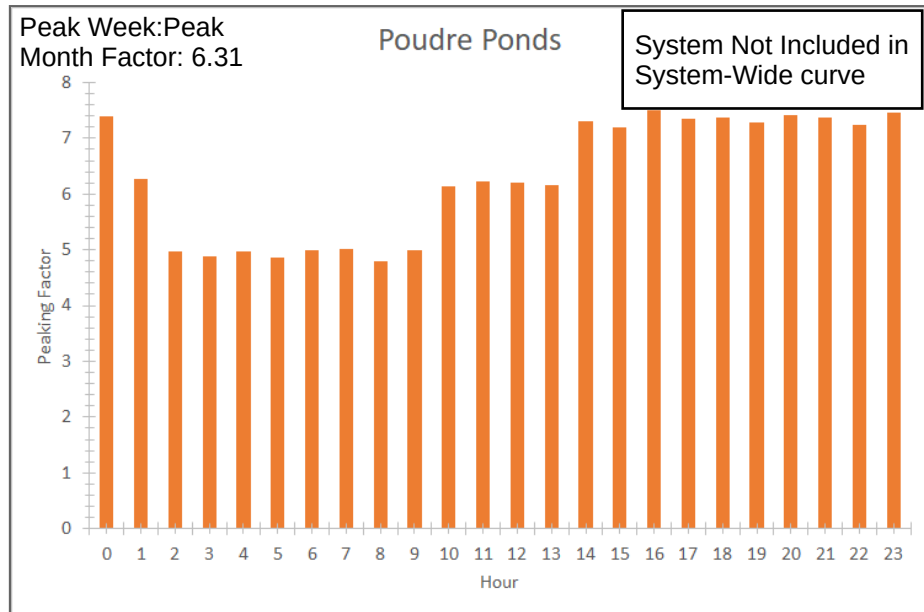
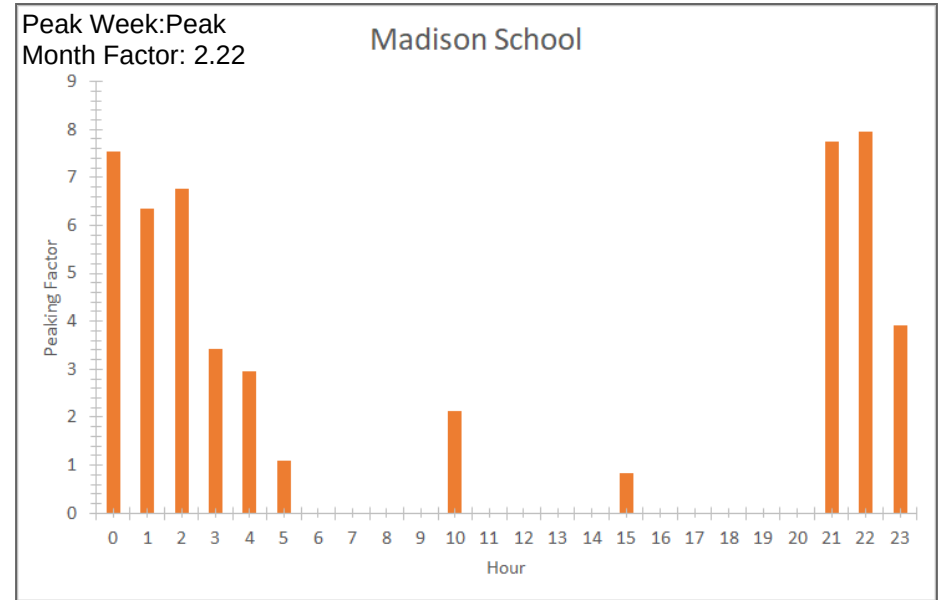
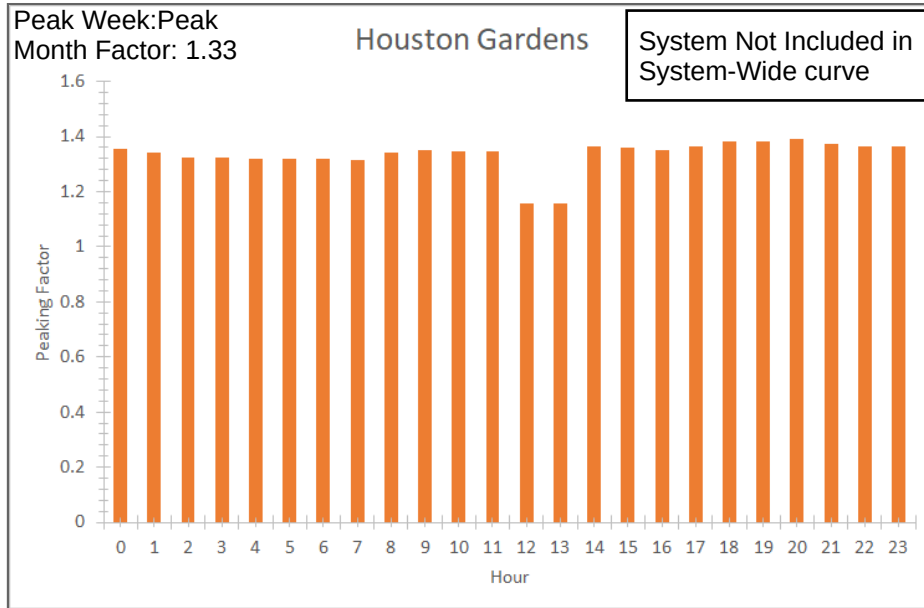
System Not
Included in
System-Wide
curve

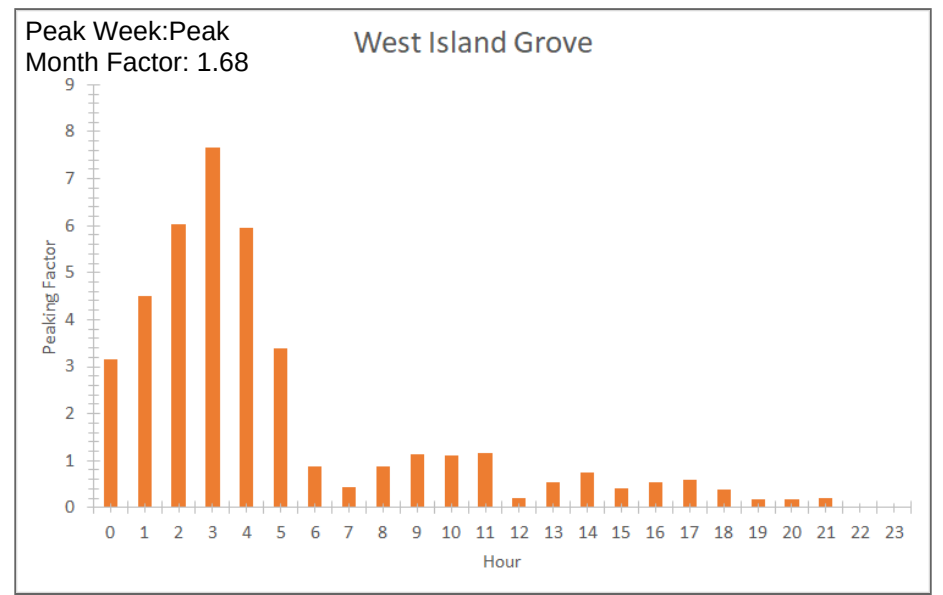
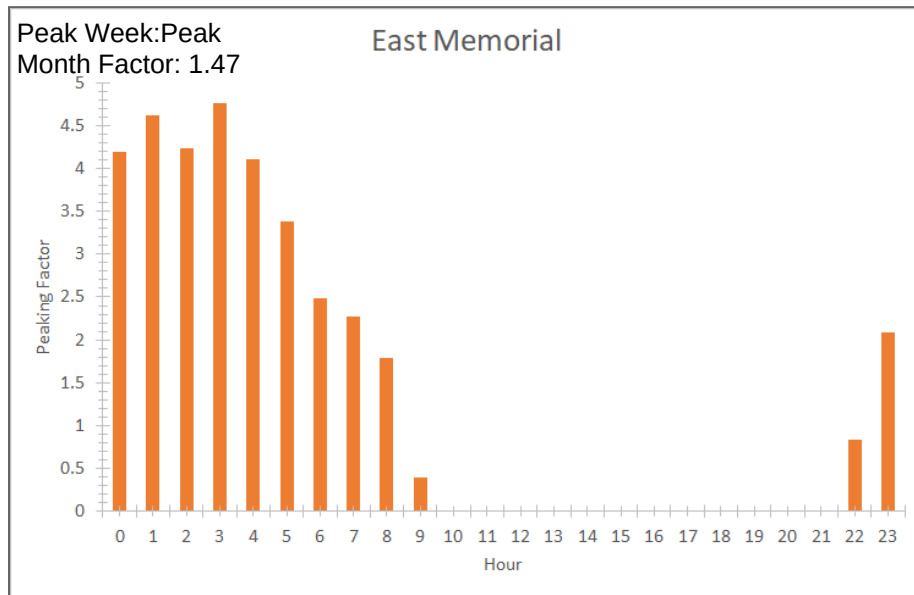
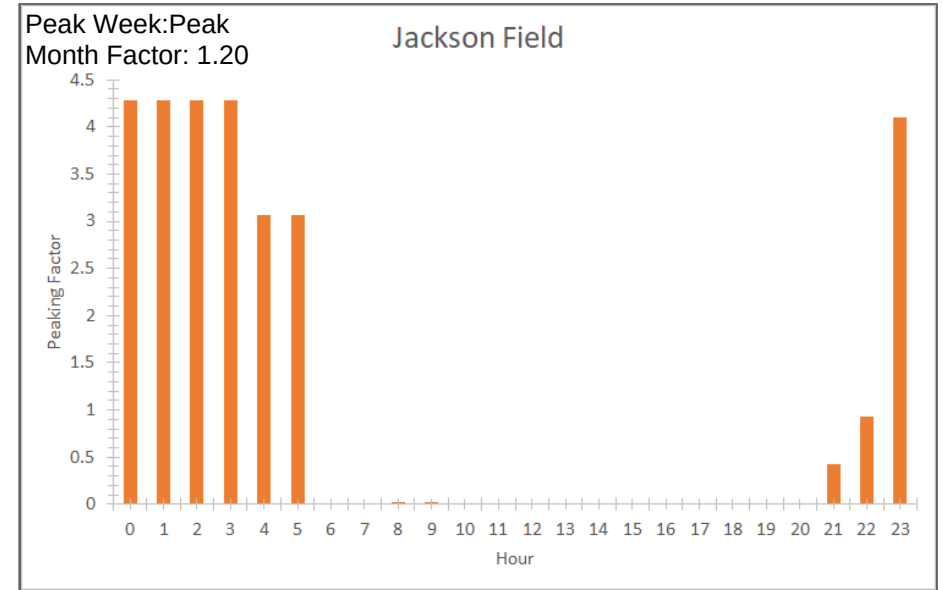
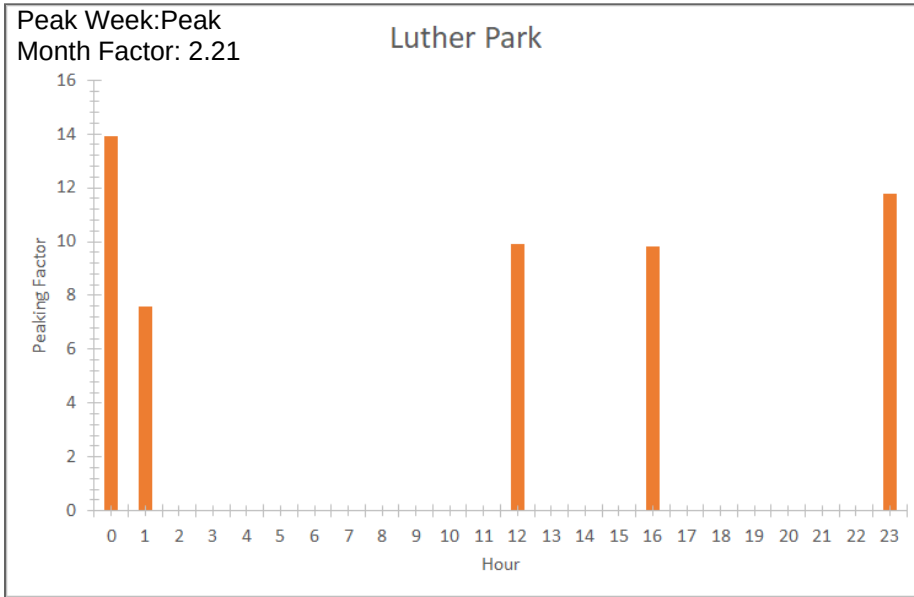


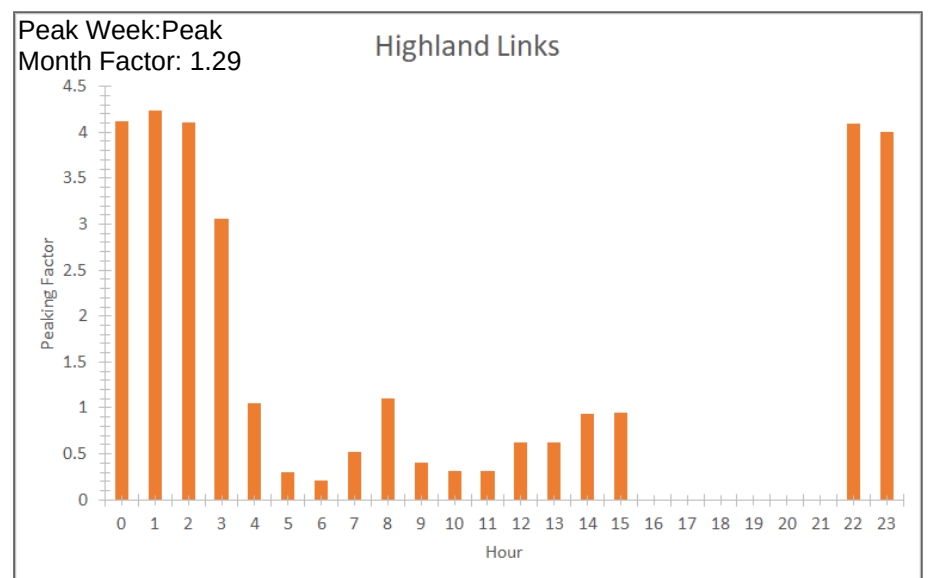
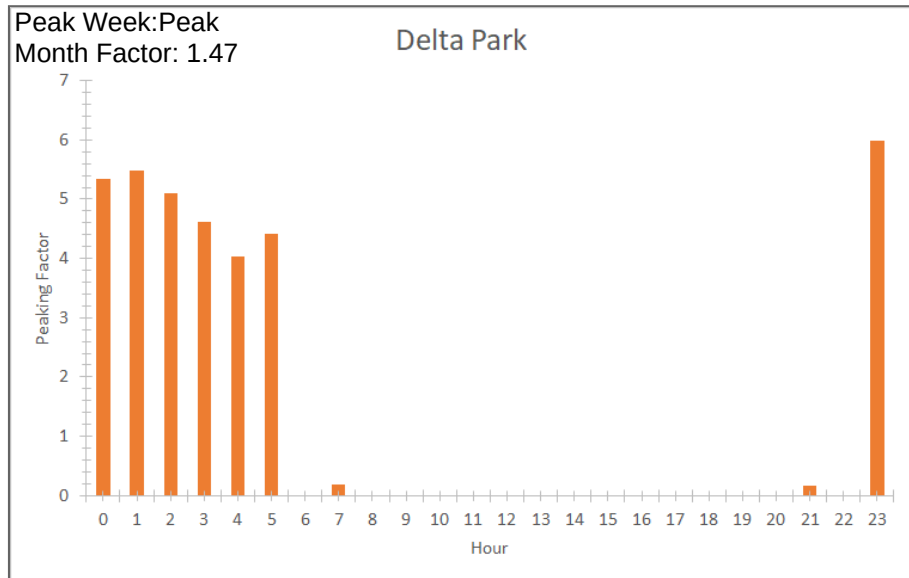
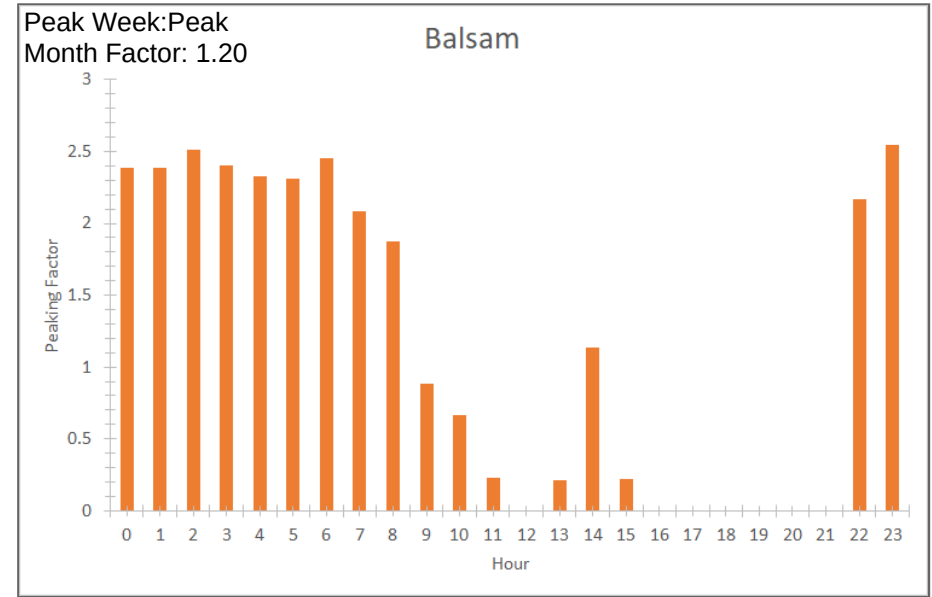
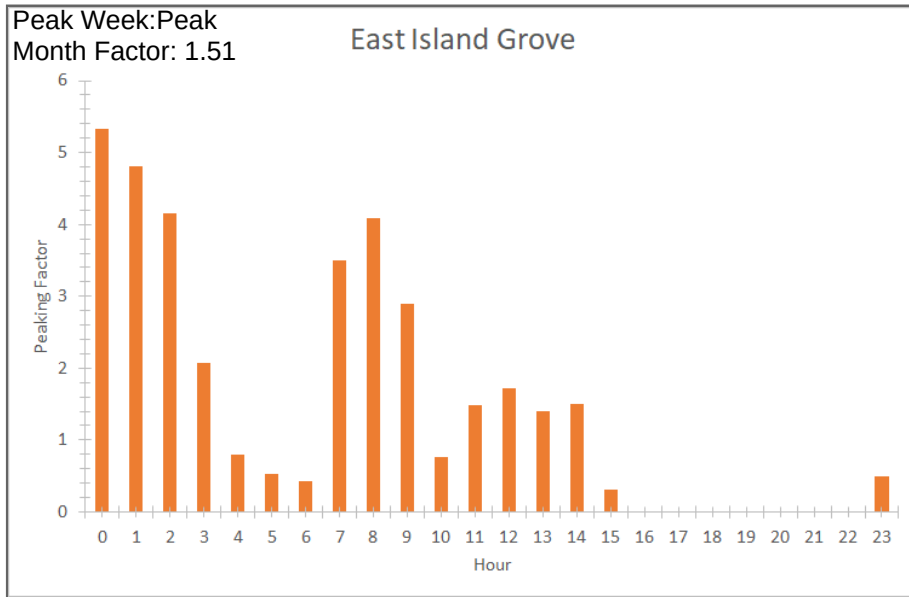
Peak Week:Peak
Month Factor: 1.38

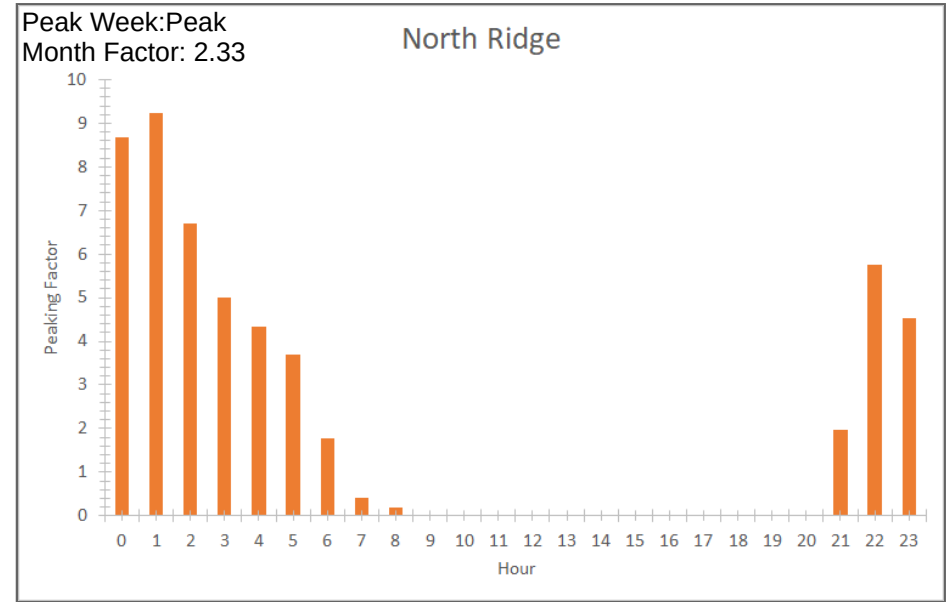
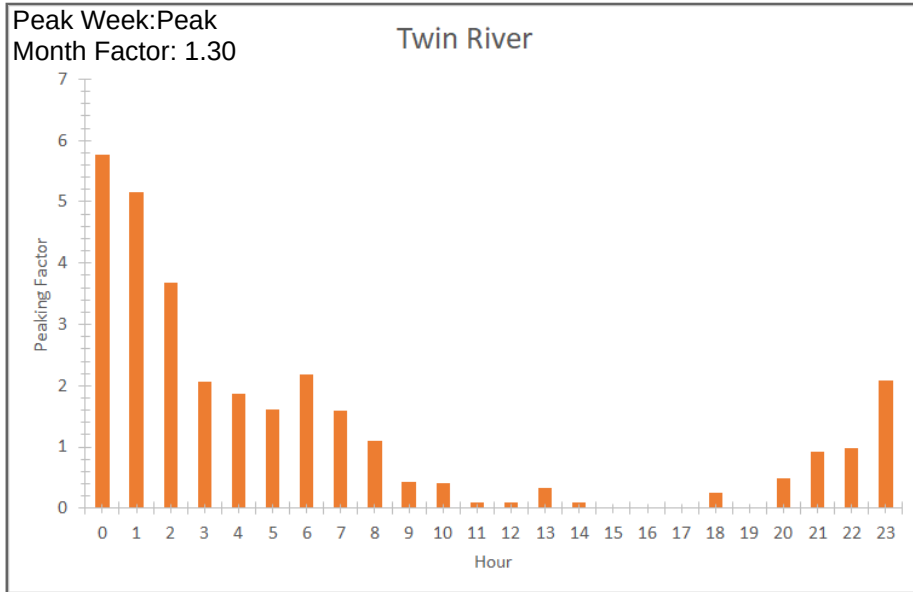
Bittersweet Park











Appendix D

Existing Station Details

The following table contains the results of the modeling and desktop analyses for the existing system. For more information on recommended improvements to the existing system, please see **Section 5.2**.

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Pump Station Name	Pump Name	Pump Design Capacity (gpm) Existing	Station Design Capacity (gpm) Existing	Pumping Head (ft) Existing	Inlet Diameter (Smallest) (in) Existing	Max Hour Demand (gpm) Existing	Max Hour Demand (gpm) Buildout	Max Day Demand (gpm) Buildout	Max Day Demand (gpd) Buildout	Max Hour % of Pumping Capacity Buildout	Max Day % of Pumping Capacity Buildout, 10hrs	Recommended Pond Capacity (AF) Buildout	Inlet Max Headloss at Buildout (ft/1000 ft)	Max Day Demand without Adoption (gpd) Buildout	Notes
Twin Rivers	NP-TR-PMP-01	1,000	4,200	259	10	1,314	2,004	544	782,942	48%	31%	10.6	21	783,205	
	NP-TR-PMP-02	200													
	NP-TR-PMP-03	1,000													
	NP-TR-PMP-04	1,000													
	NP-TR-PMP-05	1,000													
Youth Sports	NP-YS-PMP-06	600	1,200	250	6	941	941	257	370,109	78%	51%	5.0	19	370,109	
	NP-YS-PMP-07	600													
Highland Hills Golf	NP-HH-PMP-01	667	2,001	289	10	1,792	1,792	571	822,053	90%	68%	11.1	18	822,053	
	NP-HH-PMP-02	667													
	NP-HH-PMP-03	667													
Monfort	NP-MF-PMP-01	800	2,400	234	10	1,423	1,745	589	848,074	73%	59%	11.5	21	848,337	
	NP-MF-PMP-02	800													
	NP-MF-PMP-03	800													
Josephine Jones Park	NP-JJ-PMP-01	115	115	223	4	106	161	52	75,413	140%	109%	1.0	30	75,472	
St. Michaels	NP-SM-PMP-01	560	1,120	288	20	1,121	1,167	426	613,800	104%	91%	8.3	0	613,800	
	NP-SM-PMP-02	560													
Peakview Park	NP-PV-PMP-01	400	800	240	8	681	681	148	213,048	85%	44%	2.9	9	213,048	
	NP-PV-PMP-02	400													
Boomerang South	NP-BG-PMP-01	500	1,500	307	N/A	694	0	0	0	0%	0%	0.0	N/A	0	Being replaced by Boomerang Regional Pump Station
	NP-BG-PMP-02	500													
	NP-BG-PMP-03	500													
North Ridge High School	NP-NR-PMP-01	900	2,700	272	18	1,205	1,752	486	699,811	65%	43%	9.4	1	699,811	
	NP-NR-PMP-02	900													
	NP-NR-PMP-03	900													
Boomerang North	NP-BG-PMP-04	500	1,500	307	8	769	769	250	359,309	51%	40%	4.9	11	359,309	
	NP-BG-PMP-05	500													
	NP-BG-PMP-06	500													
Poudre River Ranch	NP-BG-PMP-09	175	175	226	24	205	205	84	120,830	117%	115%	1.6	0	120,830	Single inlet for all 71st Avenue Transfer pumps
Boomerang Transfer	NP-BG-PMP-07	900	1,800	272		951	621	346	498,010	35%	46%	6.7		498,010	
	NP-BG-PMP-08	900													
North Ridge Transfer	NP-BG-PMP-10	900	1,800	272		936	936	269	387,346	52%	36%	5.2		387,346	
	NP-BG-PMP-11	900													
Promontory Park - Transfer	NP-PM-PMP-01	800	1,600	157	12	1,651	1,651	464	668,765	103%	70%	9.0	7	668,765	
	NP-PM-PMP-02	800													
Promontory Park - Main	NP-PM-PMP-03	700	2,100	261	14	1,270	1,866	674	970,200	89%	77%	13.1	3	970,200	
	NP-PM-PMP-04	700													
	NP-PM-PMP-05	700													
Greeley West Park	NP-GW-PMP-01	1,000	2,000	236	4	72	861	280	402,610	43%	34%	5.4	1,150	402,946	Pump station being replaced, proposed inlet size unknown
	NP-GW-PMP-02	1,000													
Sanborn Park	NP-SP-PMP-01	250	500	256	4	268	289	94	135,158	58%	45%	1.8	60	135,168	
	NP-SP-PMP-02	250													
Cottonwood Park	NP-CW-PMP-01	115	115	212	4	69	69	23	32,414	60%	47%	0.4	4	32,414	
Glenmere Park	NP-GM-PMP-01	180	180	226	4	135	304	99	142,214	169%	132%	1.9	127	142,215	
Bittersweet Park	NP-BP-PMP-01	500	1,000	250	6	854	1,160	258	371,563	116%	62%	5.0	150	371,626	
	NP-BP-PMP-02	500													
Luther Park	NP-LP-PMP-01	265	530	224	10	492	498	89	127,469	94%	40%	1.7	2	127,474	
	NP-LP-PMP-02	265													
Madison Elementary and Houston Gardens	NP-ME-PMP-01	125	125	200	8	310	310	298	428,616	248%	571%	5.8	3	428,618	Single inlet for two pumps
	NP-ME-PMP-02	500	500	231		90	93	27	38,203	19%	13%	0.5		38,203	

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Pump Station Name	Pump Name	Pump Design Capacity (gpm) Existing	Station Design Capacity (gpm) Existing	Pumping Head (ft) Existing	Inlet Diameter (Smallest) (in) Existing	Max Hour Demand (gpm) Existing	Max Hour Demand (gpm) Buildout	Max Day Demand (gpm) Buildout	Max Day Demand (gpd) Buildout	Max Hour % of Pumping Capacity Buildout	Max Day % of Pumping Capacity Buildout, 10hrs	Recommended Pond Capacity (AF) Buildout	Inlet Max Headloss at Buildout (ft/1000 ft)	Max Day Demand without Adoption (gpd) Buildout	Notes
Ramseier	NP-RP-PMP-01	225	450	235	8	734	739	240	345,485	164%	128%	4.7	11	345,490	
	NP-RP-PMP-02	225													
Island Grove and Saddle Club	NP-IG-PMP-01	600	600	290	N/A	605	605	135	194,242	101%	54%	2.6	N/A	194,242	
	NP-IG-PMP-02	700	700	300	N/A	401	401	120	172,267	57%	41%	2.3	N/A	172,267	
	NP-IG-PMP-03	300	300	259	N/A	72	138	48	69,595	46%	39%	0.9	N/A	69,677	
Jackson Field Sports	NP-JF-PMP-01	200	400	236	14	258	317	95	137,074	79%	57%	1.9	0	137,132	
	NP-JF-PMP-02	200													
Linn Grove Cemetery	NP-LG-PMP-03	350	350	305	4	95	122	40	57,168	35%	27%	0.8	11	57,168	
Bella Romero Elementary	NP-RE-PMP-01	330	330	263	N/A	109	109	35	50,803	33%	26%	0.7	N/A	50,803	
East Memorial	NP-EM-PMP-01	34	319	189	10	314	440	146	210,600	138%	110%	2.8	2	210,651	
	NP-EM-PMP-02	285		213											
Delta Park	NP-DP-PMP-01	95	95	231	4	52	52	6	8,928	55%	16%	0.1	2	8,928	
Balsam Park	NP-BS-PMP-01	290	290	120	4	51	51	19	27,749	18%	16%	0.4	0	27,749	

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Appendix E

Future Pump Station Details

The following table contains the preliminary design points used to design all future pump stations through buildout. This information is for planning purposes only and does not constitute a full hydraulic design. Additional engineering work, as well as coordination between developers and the City, will be necessary to design all future NP infrastructure.

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Pump Station Name	Planning Horizon	Pump Station Elevation (ft)	HGL (ft) ³	Pump Station Demand (gpm) ²			% of Buildout			Max Day Demand, Unadopted (gpd) Buildout	# Pumps	Pump Design		PS Outlet Size (in)	Pond Size (acre-ft) ¹	Notes
				2025	2040	Buildout	2025	2040	Buildout			Flow (gpm)	Head (ft)			
SA-0	2075	4741	4930	0	0	641	0%	0%	100%		2	390	170	8	3.0	
SA-1	2075	4742	4929	0	0	646	0%	0%	100%		2	390	170	8	3.0	
SA-2	2075	4714	4915	0	0	534	0%	0%	100%		2	330	180	8	2.5	
SA-3	2040	4709	4887	0	118	505	0%	23%	100%		2	310	160	8	2.3	
SA-4	2040	4692	4895	0	110	187	0%	59%	100%		2	120	180	8	0.9	
SA-5	2075	4697	4885	0	0	516	0%	0%	100%		2	310	170	8	2.4	
SA-6	2075	4732	4933	0	0	300	0%	0%	100%		2	180	180	8	1.4	
SA-10	2075	4643	4831	0	0	833	0%	0%	100%		2	500	170	10	3.8	
SA-12	2040	4919	5150	0	284	963	0%	29%	100%		2	580	210	10	4.4	
SA-13	2075	4896	5091	0	0	1006	0%	0%	100%		2	610	170	10	4.6	
SA-14	2025	4898	5150	217	353	2915	7%	12%	100%		2	1750	230	16	13.4	Tech Center
SA-15	2040	4996	5184	0	1	1158	0%	0%	100%		2	700	170	10	5.3	
SA-16	2040	4906	5104	0	265	866	0%	31%	100%		2	520	180	10	4.0	
SA-25	2025	4921	5098	186	374	521	36%	72%	100%		2	320	160	8	2.4	
SA-30	2075	4880	5053	0	0	360	0%	0%	100%		2	220	155	8	1.7	
SA-34	2040	4752	4939	0	190	464	0%	41%	100%		2	280	170	8	2.1	
SA-35	2040	4681	4859	0	381	508	0%	75%	100%		2	310	160	8	2.3	
SA-36	2040	4790	4976	0	284	737	0%	38%	100%		2	450	170	8	3.4	
SA-38	2040	4636	4843	0	46	118	0%	39%	100%		2	80	180	8	0.5	
SA-41	2075	4663	4840	0	0	928	0%	0%	100%		2	560	160	10	4.3	
SA-42	2040	4663	4861	0	278	596	0%	47%	100%		2	360	180	8	2.7	
SA-44	2025	4835	5011	48	147	549	9%	27%	100%		2	330	160	8	2.5	
SA-46	2075	4749	4927	0	0	921	0%	0%	100%		2	560	160	10	4.2	
SA-47	2075	4761	4949	0	0	799	0%	0%	100%		2	480	170	10	3.7	
SA-48	2075	4757	4945	0	0	862	0%	0%	100%		2	520	170	10	4.0	
SA-49	2075	4712	4901	0	0	920	0%	0%	100%		2	560	170	10	4.2	
SA-50	2075	4741	4929	0	0	1275	0%	0%	100%		2	770	170	12	5.9	
SA-51	2075	4730	4928	0	0	2083	0%	0%	100%		2	1250	180	16	9.6	
SA-52	2075	4724	4912	0	0	1078	0%	0%	100%		2	650	170	10	5.0	
SA-53	2075	4686	4874	0	0	1500	0%	0%	100%		2	910	170	12	6.9	
SA-57	2075	4894	5114	0	0	1232	0%	0%	100%		2	740	200	16	5.7	
SA-60	2025	4894	5081	342	733	922	37%	80%	100%		2	560	200	10	4.2	
Boomerang Regional PS	2025	4791	4978	829	1650	2716	31%	61%	100%		2	1630	170	16	12.5	

Notes and Equations:

¹Pond size = ((peak hour demands, gpm) / (4.22 peak hour / peak month) * (1440 min / day) * (1 AF / 325851 gal)) * 1.1 (for ET losses)

²Peak hour demands

³Average head at downstream junction = (Elevation, ft) + (Downstream pressure @ max hour, psi)*(2.31 ft/1 psi)

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Appendix F

WaterWise Landscaping Best Practices Manual Criteria

The following manual was developed by the City of Greeley as a guide for implementing best practices for landscaping and irrigation to promote water conservation.

City of Greeley



WaterWise Landscaping Best Practices Manual Criteria

Draft

November 2019

*Water Conservation
Water Resources*

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WaterWise Landscaping Best Practices Manual

Section 1 – Introduction

Prevalent landscaping practices used in of development today have disregarded the long-term effects on the region's water supply. Nearly 75% of summer water use is consumed by outdoor vegetation. The drought in Colorado has highlighted the necessity of using WaterWise design practices in order to best use our limited water resources. Significant reductions can be gained through minor changes in the arrangement of plantings, alternative plant selection and soil preparation.

The City of Greeley has drafted criteria that includes WaterWise landscape practices that will be can be used to guide development in the design of landscaping. This criteria can also be used as a reference for existing landscapes and irrigation design. The purpose of the project is to:

1. move closer to use of landscaping that matches our semi-arid environment
2. include specific direction in choice of plant material
3. include illustrations
4. to the extent possible, make language easy to understand and apply
5. include both xeriscape requirements and aspirational practices

Besides requirements for new development, the process also includes this “Best Practices Manual” that all citizens can use in making choices about their home landscaping. These Best Practices for landscape design are derived from the seven principles of Xeriscaping, as well as GreenCo's Best Management Practices.

The intention for these Best Practices is to inform home and property owners about landscape and irrigation needs unique to Colorado, and to assist in creating responsible landscape and irrigation design decisions.

*WaterWise Landscaping**Best Practices**Section 2 – WaterWise Principles and Guidelines*

DSW, Sources: GreenCo BMPs, Xeriscape Principles

This section focuses on eight “principles” that act as goals for smart planting and irrigating in the Colorado region. Each principle offers a series of design recommendations and techniques in the form of “guidelines”. The guidelines function as steps to achieve the goals. Each guideline is not imperative but still important to ensure healthy plant growth, reduced water waste and increased cost savings over time. The following principles, if used properly, will help to create a useful, efficient and enjoyable WaterWise landscape.

*Principle #1 – Plan and design landscaping comprehensively.***Guidelines**

- A. Start with an inventory and analysis plan of the site that identifies “existing conditions.” Conditions such as drainage areas, sun exposure, soil types, good views, existing plants, etc. will affect how the site is used (Figure 1). Next develop a list of activities and areas, also called a “program,” expected to occur on the site. For example a backyard program might include a lawn play area, dog run, dining patio, barbecue grill, shade trees and shrub beds. Continue by diagramming possible locations for the program activities, while also providing access and traffic patterns or screening as needed. Finally, use this information to develop a plan that integrates plants into the overall scheme (Figure 2).
- B. Now with your overall plan, consider options on how you would like to conserve water. Several recommendations for water conservation are addressed throughout this document.
- C. Calculate the water requirements for your landscape using the Water Budget Worksheet provided in Section Seven of this manual. Try not to exceed an average total of 15 gallons per square foot annually.
- D. Incorporate trees into the landscape to provide shade, reduce stormwater runoff, stabilize soil and protect against wind. If considering the gross site area, a minimum goal of 20 percent tree canopy coverage (at trees’ maturity) for Front Range communities is recommended.
- E. When designing plant placement on slopes, place lower-water demand plants at the tops of slopes and higher-demand plants at the bottom.
- F. Artificial flowers and grass are discouraged. Exceptions may be granted for special use areas such as synthetic turf athletic fields.

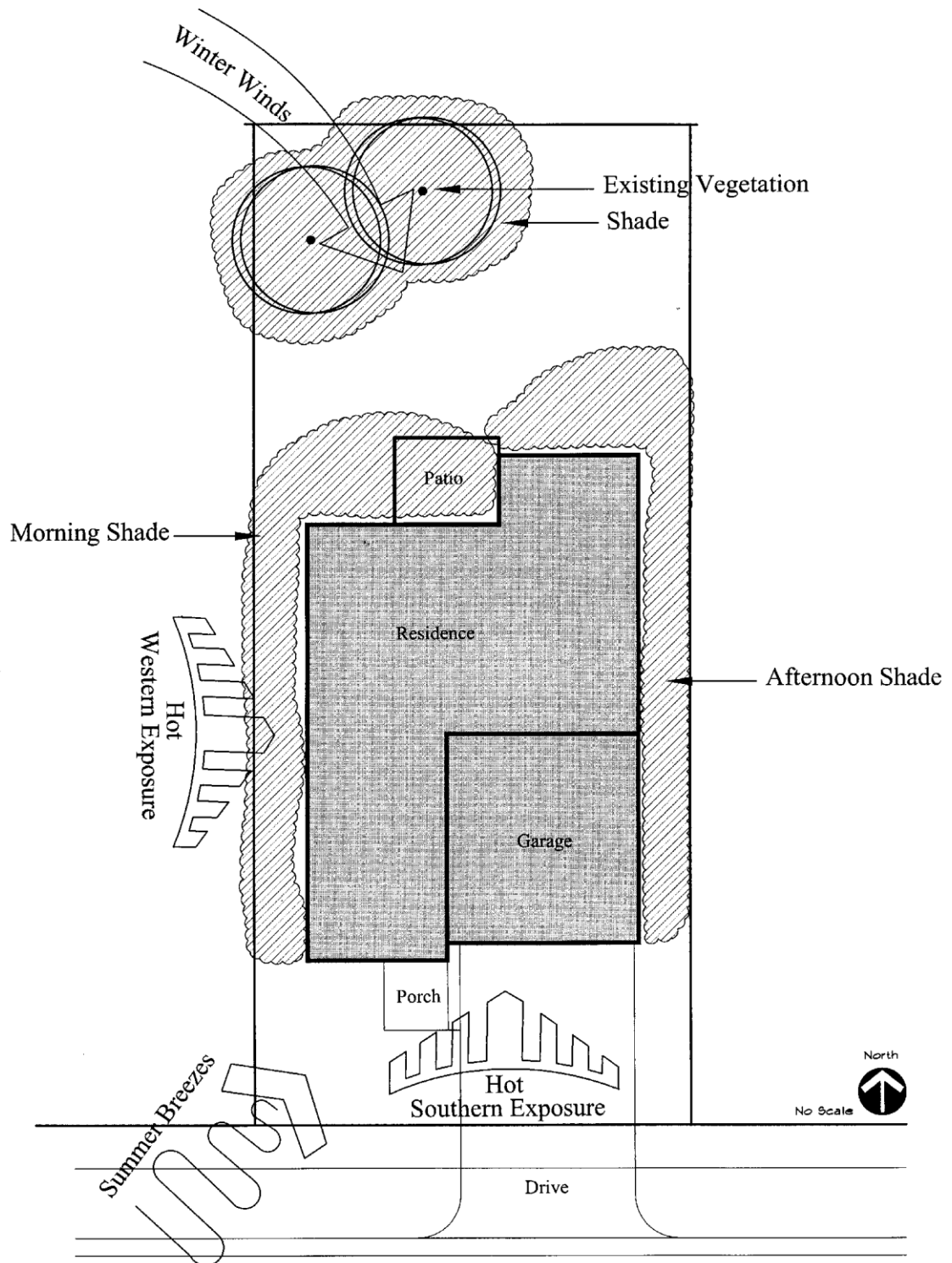


Figure 1. Inventory and Analysis Plan

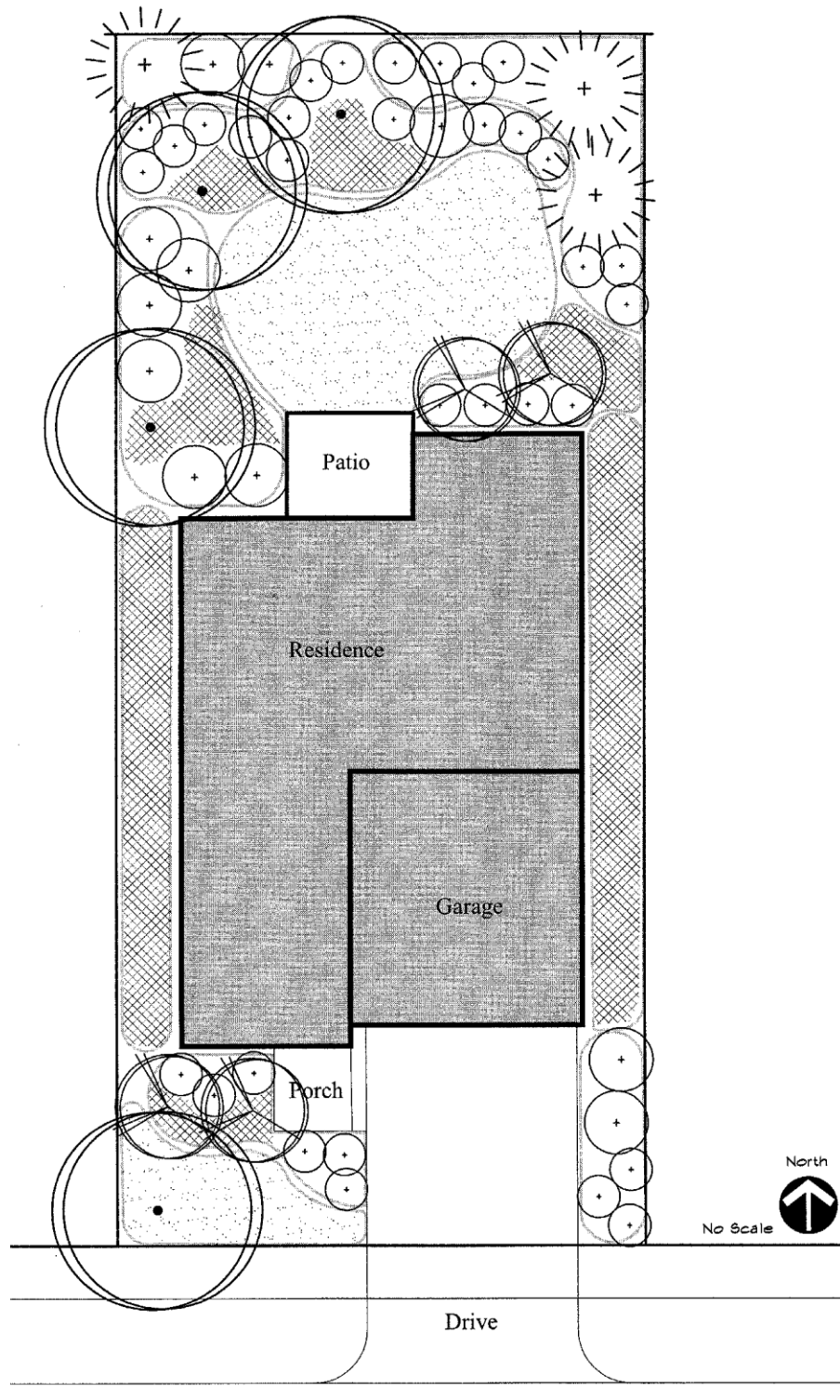


Figure 2. Overall Planting Plan

Principle #2 - Evaluate soil and improve, if necessary.

Guidelines

- A. Soil suitability for planting should be evaluated to identify potential soil amendments that may improve plant health and survival (see Section Five).
- B. Strip and stockpile existing topsoil prior to major site re-grading. Following completion of grading, replace topsoil and improve soil for planting with suitable soil amendments.
- C. Improve soil as suitable (see Section Five) before planting and installing the irrigation system. Soil improvement promotes better absorption of water, improved water-holding capacity and drainage of the soils. It also allows for better oxygen transfer within the root zone.
- D. Add organic material to the plant hydrozones, but only as needed. This typically means adding organic material for High and Moderate water zones, but not for Low and Very Low water zones. pH-balanced examples of organic materials are compost (from plants), sphagnum peat and animal manure (other than cow or horse).
- E. Soil preparation should include the breaking up and loosening, or scarification, of soil to 6 inches, with incorporation of organic amendments, fertilizer, etc. as specified by a landscape designer, landscape architect or soil analysis (Figure 3).

For more information please refer to Section 5, Understanding Soils and Soil Preparation.

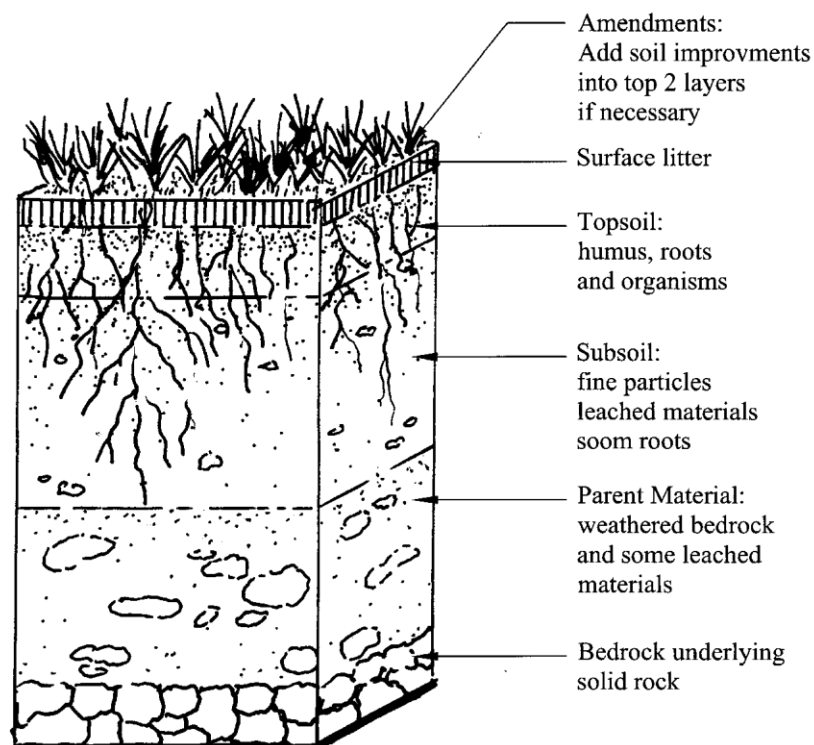


Figure 3. Soil Profile

Principle #3 - Create efficient turf areas.

Guidelines

- A. Include turf areas where they provide defined functions (i.e., recreation, traffic areas, etc.). Plantings of trees, shrubs, ground covers and flowers are best separated from grass so they can be watered separately. Often, portions of turf areas can be replaced with more water-efficient ground covers and mulches (Figure 4).
- B. When selecting turfgrass, consider the use, aesthetic and design goals of the site, estimated water use and maintenance budget. Alternative grass types, such as tall fescue, buffalograss, blue grama and wheat grass, may provide lower water and maintenance needs than bluegrass. In areas where irrigation is not planned for instance, a mix of mainly native bunch and sod-forming grasses might be used. (See Section Four for native seed mix options.)
- C. Avoid using turf in areas less than 8 feet wide and on slopes steeper than 3:1. These areas require inefficient irrigation sprays. Consider using drip-irrigated shrubs or groundcovers with Low or Very Low water requirements as alternatives. A special exception may be streetscape tree lawns, where turfgrass may be most appropriate with careful consideration and monitoring of potential irrigation inefficiencies.
- D. Some sites and turf areas with difficult irrigation or maintenance concerns may perform better with low water grass types or groundcovers. Consider street rights-of-way, industrial sites, drainageways and natural areas for such alternative grasses. (See Principle #8 below.)



Figure 4. Efficient Turf Area in Front Yard

Principle #4 - Use appropriate plants and group according to their water need, i.e. “hydrozoning”.

Guidelines

- A. Plants with lower water requirements, such as native species adapted to Colorado’s climate, should be considered. However, other plants can have a place in xeriscape designs, even if they require larger amounts of water. The key is to use those plants in appropriate locations and not to interplant them with others that have very different, lower water requirements. In effect, the grouping of plants into “hydrozones” based on their water requirements allows them to be irrigated efficiently. A detailed list of Colorado landscape plants and their respective water requirements by “hydrozone category” is included in Section Three.
- B. Group plants with like water needs together (Figure 5). Plants located within the drip line for large, mature trees and shrubs should have similar water requirements as the trees and shrubs. (A drip line is considered the outermost circle on the ground where water drips from the leaves of a tree or shrub canopy above.)
- C. Plants of any water need may be used in the landscape, providing the total annual water use does not exceed Water Allowance for the ET (Evapo-Transpiration) Reference Location. For example, this allowance is 15 gallons/square foot/season in the Denver metro area. (See Section Six below for Water Budget calculations.)
- D. High water zones should be separated from Low and Very Low water zones by Moderate water zones whenever possible.
- E. Select plants that are well adapted to the climate, topographic and geologic conditions of the site.
- F. Select plants with lower water requirements for areas with southern and western exposures.
- G. Strips less than 8 feet wide should be landscaped with Low or Very Low water plants. (See Principle #3 above.)

Principle #5 - Water efficiently with a properly designed irrigation system

Guidelines

- A. Irrigate according to the water need of each hydrozone, not solely on a fixed schedule (Figure 6). Well-planned sprinkler systems can save water when properly installed and operated. Turf areas should be watered separately from beds. Shrubs, flowers and ground covers can be watered more efficiently, by less frequent irrigation that is allowed to penetrate the root zone more deeply. (See Principle #4 above.)
- B. Consider plant water requirements in irrigation design schemes.
- C. Take into account the hydraulic principles when designing the irrigation system. Generally these principles deal with water volume, pressure and patterns of movement.

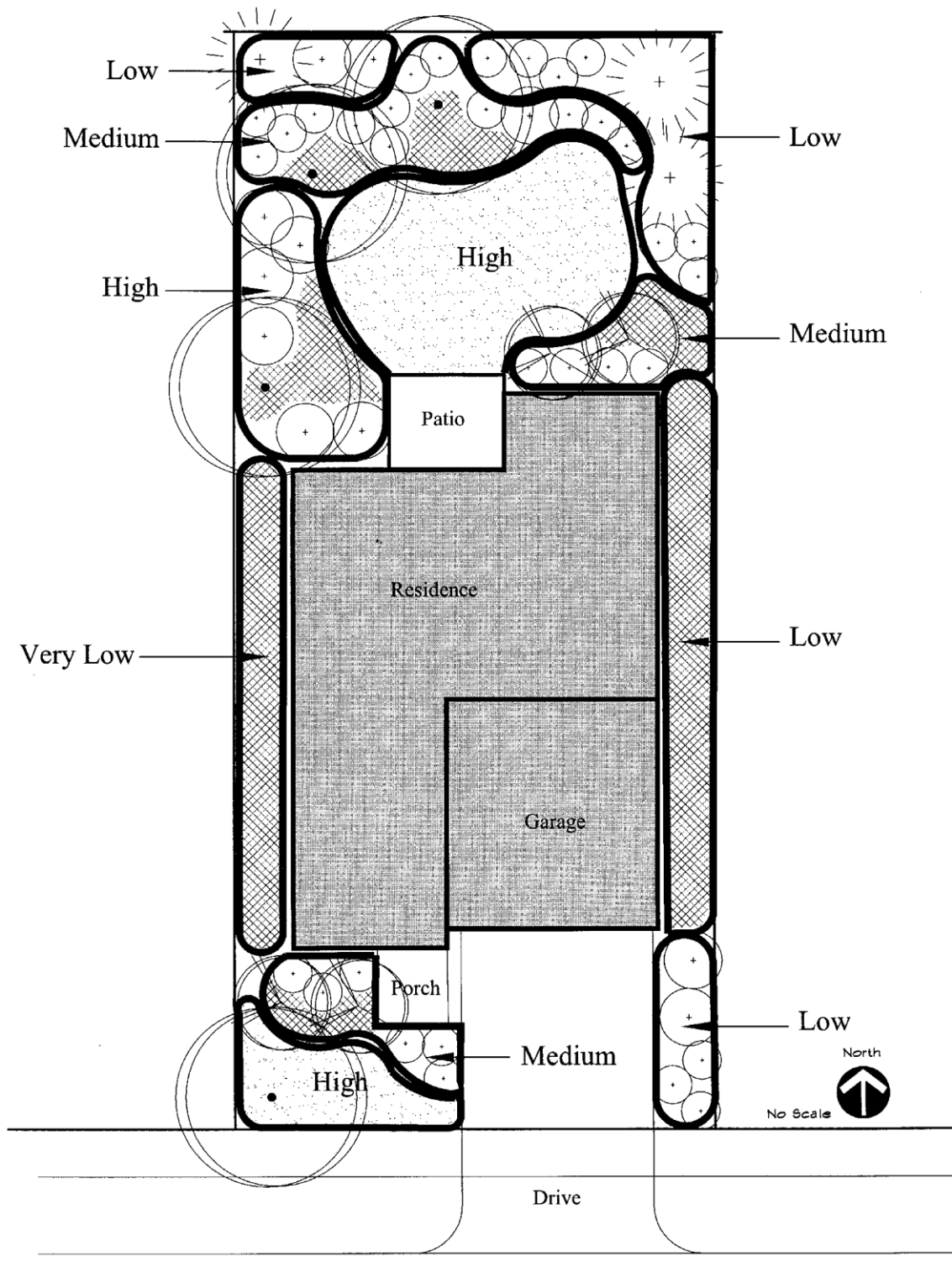


Figure 5. Hydrozone Outline Diagram with 4 water need types

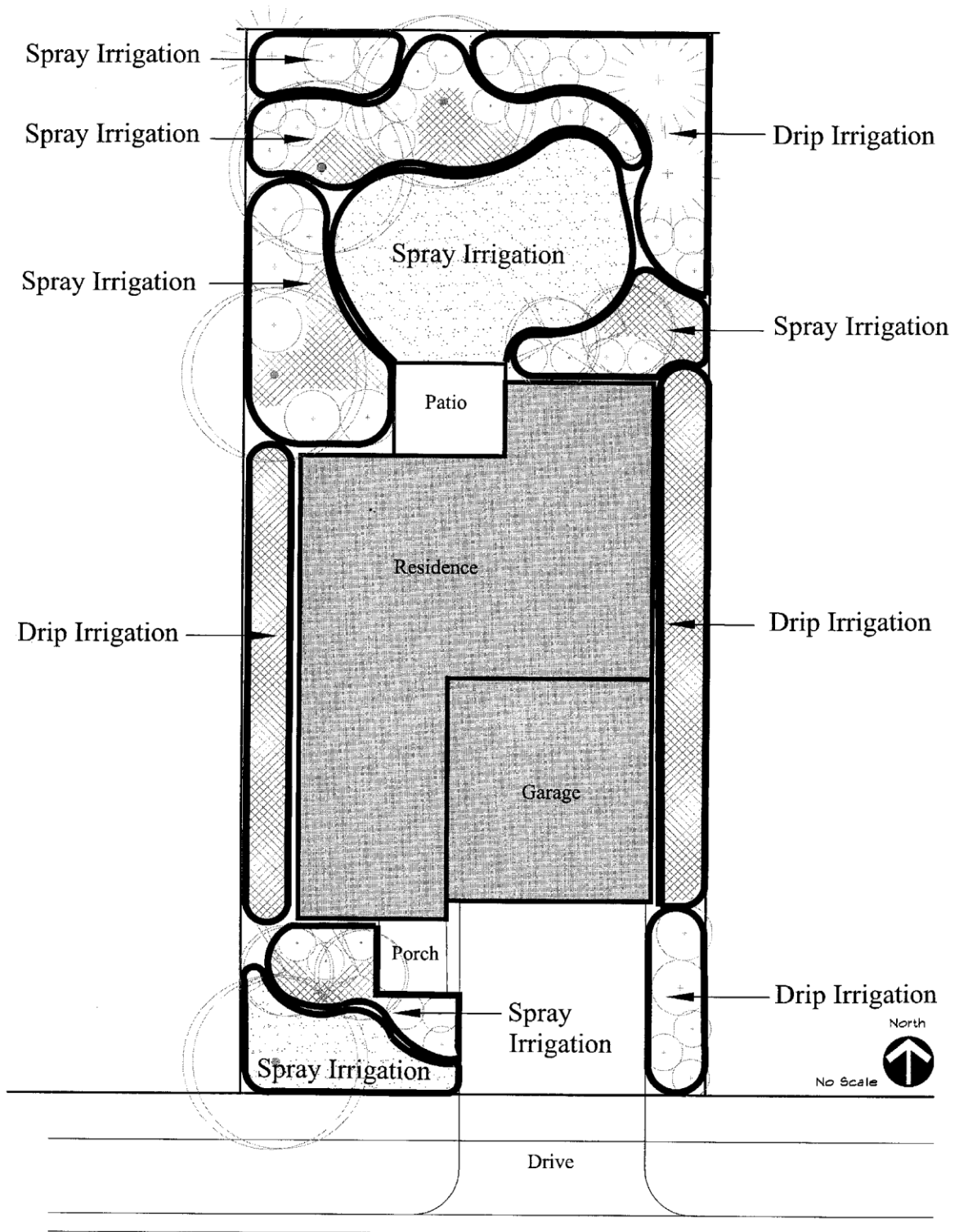


Figure 6. Irrigation Type Diagram

- D. Install an irrigation controller that offers flexible programming. Landscapes should not need as much supplemental watering during a rainy period. Rain or moisture sensors are available to coordinate with controllers, and some controllers are self-adjusting based on weather conditions.
- E. Ensure that the irrigation system is installed per plan and is accurate.
- F. Provide “as-built” drawings of irrigation system after installation with dimensions shown for irrigation components. Such drawings will help to find and correct problems in the future.
- G. Operate irrigation systems to maximize irrigation water efficiency.

For more information please refer to Section 6, Irrigation Design Techniques and Equipment.

Principle #6 - Use mulches to reduce surface evaporation of water and weeds.

Guidelines

- A. Mulched planting beds are an ideal replacement for expansive turf areas. Mulches protect and reduce temperature extremes in the soil, minimize evaporation, reduce weed growth and slow erosion. Mulches also provide landscape interest. Organic mulches are typically bark chips, wood grindings, chopped leaves or pole peelings. Inorganic mulches include rock and various gravel products.
- B. Organic mulches are generally recommended for the most benefit of the plants, but the roots of some plants perform better with inorganic mulch. Landscape professionals can help determine suitable mulches for selected plants. Inorganic mulches may also be preferred as more stable in especially windy locations, areas requiring high maintenance or those apt to erosion.
- C. Place mulch directly on the soil or on breathable fabric (Figure 7). Do not use solid sheet plastic beneath mulched areas, as these keep out water and air – both of which are vital to plant health.
- D. All plantable areas not covered with turf should be covered with a minimum of four inches (4”) of a suitable mulch to retain water, and inhibit weeds.
- E. Mulching exceptions for Low and Very Low hydrozones should be considered.

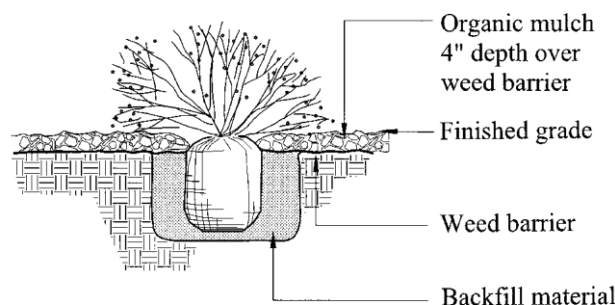


Figure 7. Shrub Planting in Mulch Bed

Principle #7 - Practice appropriate landscape maintenance.

Guidelines

- A. Proper pruning, weeding, mowing and fertilization, plus attention to the irrigation system, are needed to maximize water savings. Regular maintenance of planting and irrigation system preserves the intended beauty of the landscape, and saves water and maintenance costs through efficient operations. Always water according to hydrozone need and current soil moisture conditions, rather than according to a rigid schedule.
- B. Landscapes should be maintained to ensure water efficiency. A regular maintenance schedule should include but not be limited to checking, adjusting, and repairing irrigation equipment; resetting the automatic controller; aerating turf areas; replenishing mulch; fertilizing; pruning, and weeding in all landscaped areas.
- C. Whenever possible, repair of irrigation equipment should be done with the originally specified materials or their equivalents so that original performance and efficiency can be maintained for longer periods. (See Section Six for more Irrigation information.)



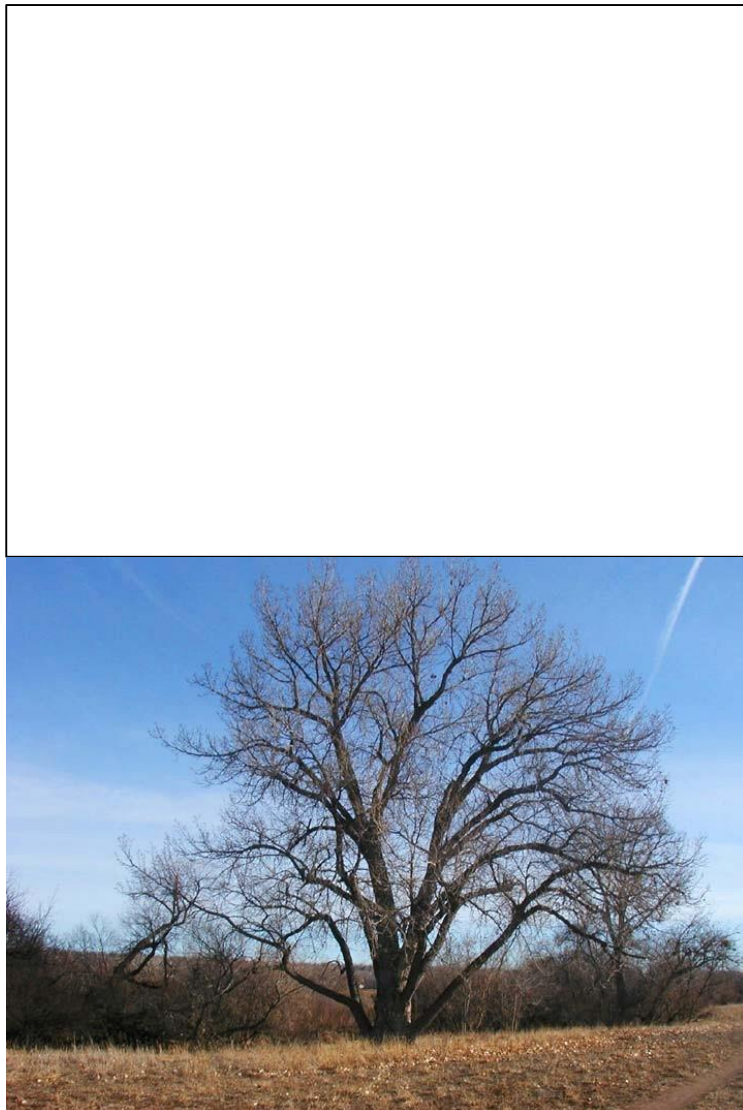
Garden Maintenance

Principle #8 – Preserve existing landscape and natural areas.**Guidelines**

- A. Where possible preserve existing native remnant plant communities and site conditions that support them.
- B. Where possible preserve healthy trees – established plants have often developed a root system that is adapted to lower water conditions.
- C. Local native plants and plants with documented lower water requirements should be given priority in landscape design. A native plant is a species that “occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human action” (Federal Native Plant Conservation Committee, 1994). A local native plant is derived from “a population or ecotype of the native plant species that was grown from genetically local plant materials” (Colorado Native Plant Society).
- D. Use of native plants in the landscape supports local biodiversity, helps sustain local wildlife, enhances recreation experience, supports remnant native plant communities and reduces water consumption.

Natural Area

- E. All landscapes have the potential to impact native communities through transport of and plant propagules by wind and storm drainage.



have
plant
seeds
wind

- Landscapes adjacent to native sites are particularly critical due to the potential of direct spread, but all projects (public or private) should not harbor or install exotic horticultural plant species that are known to be invasive and therefore threaten natural areas. A complete list of threatening plants to avoid is provided by the Colorado Native Plant Society web site: <http://carbon.cudenver.edu/~shill/species_avoid.pdf>.
- F. Landscapes adjacent to native areas should emphasize the use of species with low fuel volume of low flammability. Mowing management can be used to limit build up of flammable plant materials. Information on the fire-resistance of some native plants can be found at <www.ext.colostate.edu/PUBS/NATRES/06307.html>.
 - G. Remove species that are designated state noxious weeds, especially ornamental species such as purple loosestrife, oxeye daisy, tamarisk, myrtle spurge and yellow toadflax. See Section Four below for the 2003 list of noxious weeds for Colorado, or for more information see the “Noxious Weed List (Rules and Regulations)” at <www.ag.state.co.us/DPI/weeds/weed.html>.

For more information please refer to Section 4, Natural Areas and Native Plants.

WaterWise Landscaping Best Practices

Section 3 – WaterWise Plant Lists

A. The Four Hydrozones – WaterWise Plant Groupings

The key to WaterWise landscaping is to arrange plants in appropriate locations and not to interplant them with others that have very different, lower water requirements. This grouping of plants into “hydrozones” is based on their water requirements, and allows them to be irrigated efficiently. The following list shows how to group plants based their water needs.

Due to variability in plant water requirements due to location of the plant on a site, a range of hydrozone categories has been shown for many plants. For purposes of calculating the water budget for each hydrozone, the lowest hydrozone category for each plant shall be used.

High Water need

example: Bluegrass turf – always wet at the surface

uses 18-20 gals./ S.F./season = 3 waterings per week totaling 5 inches (in July)

Moderate Water need

example: turf-type Tall Fescue – ½ the water of Bluegrass turf

uses 10 gals./S.F./ season = ¾ inches of water, once per week

Low Water need

example: Buffalograss turf – needs rain and occasional watering

uses 0-3 gals./S.F./season = ½ inch of water per 2 weeks, optional

Very Low Water need

example: too dry for any turf grass (drier than Denver)

no irrigation required

B. Colorado WaterWise Plant List Summary

1. Shrubs (Deciduous, Rocky Mountain Natives)
2. Shrubs (Deciduous, Introduced to the region)
3. Trees (Deciduous, Rocky Mountain Natives)
4. Trees (Deciduous, Introduced to the region)
5. Evergreens (Coniferous Trees)
6. Evergreens (Coniferous Shrubs)
7. Evergreens (Non-coniferous)
8. Vines
9. Groundcovers (Including turf & meadow grasses)
10. Selected Perennials

The complete Plant Lists are provided on the following pages.

Copying and use of this list is encouraged, only if the following note, & the water needs of plants are included.

For more information see... **WaterWise Landscaping with Trees, Shrubs, and Vines**

Jim Knopf, Chamisa Books

SHRUBS

(Deciduous Rocky Mountain Natives)

[Revised April '03]

WATER NEEDS OF PLANTS

The following chart shows how to group plants based on their water needs.
Reference Location: Denver. Numbers illustrate typical conditions.

* = Plants with potential, but requiring caution due to limited history in Rocky Mountain landscaping.

HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation

Acer•glabrum	Rocky Mountain Maple	(M-H)
Acer•grandidentatum	Bigtooth Maple, Wasatch Maple	(M)
Alnus•tenuifolia	Rocky Mountain Alder	(H)
Amelanchier•alnifolia	Rocky Mtn. Serviceberry	(M+/-)
Amelanchier•utahensis *	Utah Serviceberry	(VL- M)
Amorpha•canescens	Lead Plant	(L- M)
Amorpha•fruticosa	False Indigo	(M +/-)
Amorpha•nana	Dwarf Lead Plant	(L- M)
Atriplex•canescens	Four-wing Saltbush	(VL-L)
Atriplex•confertifolia	Shadscale	(VL-L)
Betula•fontinalis	Rocky Mtn. River Birch	(H)
Betula•glandulosa	Bog Birch	(H)
Ceratoides•lanata *	Winterfat	(L)
Cercocarpus•montanus	Deciduous Mountain Mahogany	(L- M)
Chamaebatiaria•millefolium	Fernbush	(VL-L)
Chrysothamnus•spp.	Rabbitbrush species	(VL-L)
Cornus•sericea (now C. stolonifera)		
Cornus•stolonifera	Redtwig Dogwood	(H)
Corylus•cornuta	Beaked Hazelnut	(H- M)
Crataegus•var.occidentalis *	Native Hawthorn	(M+/-)
Crataegus•erythropoda *	(syn.? C. s. var. occidentalis)	(M+/-)
Crataegus•succulenta•var. macrantha *	Native Hawthorn	(M+/-)
Fallugia•paradoxa	Apache Plume	(VL-L)
Fendlera•rupicola	Cliff Fendlerbush	(L- M)
Forestiera•neomexicana	New Mexico Privet	(M+/-)
Fraxinus•anomala	Singleleaf Ash	(L)
Holodiscus•dumosus	Rock Spray	(L- M)
Jamesia•americana	Jamesia	(M - H)
Lonicera•involucrata	Twinberry	(H)
Lycium•pallidum *	Pale Wolfberry	(L)
Ostrya•knowltonii *	Western Hop Hornbeam	(M+/-)

Parryella•filifolia *	Dunebloom	(M+/-)
Pentaphylloides•floribunda	= Potentilla•fruticosa	
Peraphyllum•ramosissimum *	Squaw Apple	(L - M)
Philadelphus•lewisii	Lewis's Mockorange	(M+/-)
Philadelphus•microphyllus	Littleleaf Mockorange	(M+/-)
Physocarpus•monogynus	Mountain Ninebark	(M+/-)
Poliomintha•incana *	Purple Sage	(VL-L)
Potentilla•fruticosa	Shrubby Potentilla	(M - H)
Prunus•americana	Wild Plum	(M+/-)
Prunus•besseyi	Sand Cherry	(L-M)
Prunus•pensylvanica *	Pin Cherry	(M+/-)
Prunus•pensylvanica•saximontana *	Dwarf Pin Cherry	(M+/-)
Prunus•virginiana	Chokecherry	(M - H)
Ptelea•trifoliata	Hoptree	(M+/-)
Purshia•tridentata	Bitterbrush	(L - H)
Quercus•gambelii	Gambel's Oak	(M+/-)
Quercus•turbinella *	Turbinella Oak	(L - M)
Quercus•undulata *	Wavyleaf Oak	(L - M)
Rhamnus•smithii *	-----	(M+/-)
Rhus•glabra	Smooth Sumac	(L - M)
Rhus•glabra•var. •cismontana	Rocky Mountain Smooth Sumac	(L-M)
Rhus•glabra•'Laciniata'	Cutleaf Smooth Sumac	(L-M)
Rhus•microphylla *	Littleleaf Sumac	(L-M)
Rhus•trilobata	Three-leaf Sumac	(L - M)
Ribes•aureum	Golden Currant	(M+/-)
Ribes•cereum *	Squaw Currant	(M+/-)
Ribes•inerme	Whitestem Gooseberry	(M+/-)
Rosa•woodsii	Wood's Rose	(M+/-)
Rubus•deliciosus	Boulder Raspberry	(M+/-)
Rubus•idaeus•var. •strigosus	Wild Raspberry	(M - H)
Rubus•parviflorus *	Thimbleberry	(M - H)
Salix•irrorata	Bluestem Willow	(H)
Sambucus•caerulea *	Blue Elderberry	(H)
Sambucus•melanocarpa *	Blackbead Elderberry	(H)
Sambucus•racemosa *	Red Elderberry	(H)
Sarcobatus•vermiculatus *	Greasewood	(VL-L)
Shepherdia•argentea	Silver Buffaloberry	(M+/-)
Shepherdia•canadensis *	Buffaloberry	(M+/-)
Sorbus•scopolina *	Rocky Mtn. Mountain Ash	(M - H)
Symphoricarpos•albus	Snowberry	(M+/-)
Symphoricarpos•orbiculatus *	Coralberry	(M+/-)
Tetradymia•canescens *	Gray Horsebrush	(L)

SHRUBS

(Deciduous, Introduced)

[Revised April '03]

WATER NEEDS OF PLANTS

The following chart shows how to group plants based their water needs.
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Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./ S.F./season July: 5" -- 3 times per week	10 gals./S.F./ season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation
Abelia•chinensis *	Chinese Abelia (China)	(M-H)	
Abelia•x•grandiflora *	Abelia (origin unknown)	(M-H)	
Abeliophyllum•distichum *	----- (Korea)	(M+/-)	
Acanthopanax•senticosus *	Syn. Elentherococcus s.		
Acanthopanax•sieboldianus *	= Elentherococcus•sieboldianus		
Acer•azimovii * (= A.•ovczimmikovii?)	Azimov Maple	(M+/-)	
Acer•campestre *	Hedge Maple (e. Europe & w. Asia)	(M-H)	
Acer•ginnala	= Acer•tataricum•ssp.•ginnala		
Acer•maximowiczianum *	----- (China-Mongolia-Korea)	(M-H)	
Acer•semenovii *	= Acer•tataricum•ssp.•semenovii		
Acer•tataricum	Tatarian Maple (A. Minor, se. Asia)	(L-M)	
Acer•tataricum•ssp.•ginnala	Ginnala Maple (c. Asia)	(L-M)	
Acer•tataricum•ssp.•semenovii *	Turkestan Maple (c. Asia)	(L-M)	
Aesculus•parviflora *	Bottlebrush Buckeye (Ga., Ala.)	(H)	
Aesculus•sylvatica *	----- (se. USA)	(H)	
Alnus•cordata *	Italian Alder (Corsica, s. Italy)	(H)	
Alnus•glutinosa *	European Alder (Eur., n. Africa, Turkey)	(H)	
Alnus•rubra (was A.•oregona) *	Oregon Alder (w. N. Am.)	(H)	
Amelanchier•stolonifera *	Running Serviceberry (ne. N. Am.)	(H)	
Aralia•elata *	Angelica Tree (Jap., Kor., Manch.)	(M-H)	
Aralia•spinosa *	Devil's Walkingstick (e. USA)	(M-H)	
Aronia•melanocarpa	Chokeberry (e. N. America)	(M+/-)	
Artemisia•abrotanum	Southernwood (s. Europe)	(M+/-)	
Atraphaxis•caucasica *	----- (Transcaucasica)	(M+/-)	
Atraphaxis•pyrifolia *	----- (c. Asia)	(L)	
Berberis•koreana *	Korean Barberry (Korea)	(M+/-)	
Berberis•oblonga *	----- (Turkestan)	(M-L)	
Berberis•thunbergii	Japanese Barberry (Jap.)	(M-H)	
Buddleja•alternifolia *	Butterflybush (nw. China)	(M+/-)	
Buddleja•davidii	Butterflybush (China)	(M+/-)	
Buddleja•globosa *	----- (Chile, Argentina, Peru)	(M+/-)	
Buddleja•x•Lochinch' *	----- (hort. hybrid)	(M+/-)	
Callicarpa•bodineri *	Beauty Berry (c. & w. China)	(M+/-)	
Callicarpa•dichotoma *	Korean Beautyberry (e. USA)	(H)	

<i>Calycanthus•occidentalis</i> *	California Allspice (sw. USA)	(H)
<i>Calycanthus•chinensis</i> *	----- (e. China)	(H)
<i>Calycanthus•floridus</i> *	Carolina Allspice (se. USA)	(H)
<i>Caragana•arborescens</i>	Siberian Peashrub (c. Asia - Mongolia)	(L-M)
<i>Caragana•aurantiaca</i> *	Dwarf Peashrub (Sib., Afghan., Turkestan)	(L-M)
<i>Caragana•frutex</i> *	Russian Peashrub (c. Asia, Siberia)	(L-M)
<i>Caragana•maximowicziana</i> *	----- (Tibet, n. China)	(L-M)
<i>Caragana•microphylla</i>	----- (nw. China, Sib.)	(L-M)
<i>Caragana•pygmaea</i> *	----- (nw. China)	(L-M)
<i>Caragana•sinica</i> *	Chinese Peashrub (n. China)	(L-M)
<i>Caryopteris•incana</i> *	----- (China, Jap.)	(L-M)
<i>Caryopteris•mongolica</i> *	----- (n. China, Mong.)	(L-M)
<i>Caryopteris•x•clandonensis</i>	Bluemist Spirea (hort. hybrid)	(L-M)
<i>Ceanothus•sanguineus</i> *	Oregon Tea (Cal. to BC)	(H)
<i>Cerasus•verrucosa</i> *	----- (Tajikistan)	(L-M)
<i>Cercis•griffithii</i> *	Griffith's Redbud (c. Asia)	(L-M)
<i>Chaenomeles•japonica</i> *	Dwarf Quince (Japan)	(M+/-)
<i>Chaenomeles•lagenaria</i>	= <i>C. speciosa</i>	
<i>Chaenomeles•speciosa</i> *	Flowering Quince (China, Japan)	(M+/-)
<i>Chamaecytisus•hirsutus</i> *	----- (Sib.-n. China)	(M+/-)
<i>Chilopsis•linearis</i> *	Desert Willow (desert southwest)	(L-M)
<i>Chimonanthus•praecox</i> *	Fragrant Wintersweet (China)	(H)
<i>Chionanthus•retusus</i>	Chinese Fringe Tree (China, Kor. Taiwan)	(H)
<i>Chionanthus•virginicus</i>	Fringe Tree (e. N. America)	(M-H)
<i>Clematis•heracleifolia</i> •var. <i>•davidiana</i> *	----- (e. China)	(M-H)
<i>Clerodendrum•trichotomum</i> *	Glory Bower (Japan)	(H)
<i>Clethra•alnifolia</i> *	Summer-sweet (e. N. America)	(H)
<i>Clethra•delavayi</i> *	Summer-sweet (w. China)	(M+/-)
<i>Cornus•alba</i> • <i>Elegantissima</i> '	Variegated R'twig Dog'd (Sib., n. Chi., Kor.)	(H)
<i>Cornus•alternifolia</i>	Pagoda Dogwood (e. N. America)	(H)
<i>Cornus•amomum</i> *	Silky Dogwood (e. N. America)	(M-H)
<i>Cornus•controversa</i> *	Giant Dogwood (Japan, China, Him.)	(H)
<i>Cornus•kousa</i> *	----- (Japan, Korea, China)	(M-H)
<i>Cornus•kousa</i> •var. <i>•chinensis</i> *	----- (China)	(H)
<i>Cornus•mas</i> *	Cornelian Cherry (c. Europe-w. Asia)	(M-H)
<i>Cornus•racemosa</i> *	Gray Dogwood (ne. N Am)	(M-H)
<i>Cornus•sericea</i> (now <i>C. stolonifera</i>)	(See: Native Rocky Mtn. deciduous shrubs)	
<i>Cornus•stolonifera</i> • <i>Flaviramea</i> '	Yellowtwig Dogwood (N. Am.)	(H)
<i>Coronilla•emerus</i> *	Scorpion Senna (s. Norway, Spain, Greece)	(M-H)
<i>Corylopsis•pauciflora</i> *	Winter Hazel (Japan, Taiwan)	(H)
<i>Corylopsis•sinensis</i> *	Chinese Winter Hazel (c. China)	(M+/-)
<i>Corylopsis•spicata</i> *	Japanese Winter Hazel (Japan)	(H)
<i>Corylus•avellana</i> *	European Hazel (Europe)	(M-H)
<i>Corylus•chinensis</i> *	Chinese Hazel (sw. China)	(H)
<i>Corylus•maxima</i> *	Filbert (se. Eur., A. Minor)	(H)
<i>Cotinus•coggygia</i>	Smoke Tree (s. Europe-Asia)	(M+/-)
<i>Cotinus•obovatus</i> *	American Smoketree (s. USA)	(M-H)
<i>Cotoneaster•actuifolius</i>	Peking Cotoneaster (n. China)	(M+/-)
<i>Cotoneaster•apiculatus</i>	Cranberry Cotoneaster (China)	(M+/-)
<i>Cotoneaster•bullatus</i> *	----- (w. China)	(M+/-)
<i>Cotoneaster•divaricatus</i>	Spreading Cotoneaster (China)	(M+/-)
<i>Cotoneaster•franchetii</i> *	----- (sw. China, Tibet)	(M-H)
<i>Cotoneaster•horizontalis</i>	Rock Cotoneaster (w. China)	(M+/-)
<i>Cotoneaster•ignavus</i> *	----- (e. Turkestan)	(M+/-)
<i>Cotoneaster•multiflorus</i> •	Many-flowered Cotoneaster (nw. China)	(M+/-)
<i>Cotoneaster•racemiflorus</i> • <i>songaricus</i> *	----- (c. Asia)	(M+/-)
<i>Cotoneaster•simonsii</i> *	----- (Himal., Sikkim, Nepal)	(M-H)
<i>Crataegus•x•mordanensis</i> • <i>Toba</i> '	Toba Hawthorn (hort. hybrid)	(M+/-)
<i>Cudrania•tricuspidata</i> *	Chinese Silkworm Thorn (China)	(H)
<i>Cydonia•oblonga</i> *	Quince (n. Persia)	(M+/-)
<i>Cydonia•sinensis</i> *	= <i>Pseudocydonia•sinensis</i>	

Cyrilla•racemiflora *	Leatherwood (e. N. America)	(H)
Cytisus•albus *	= Cytisus•multiflorus	
Cytisus•decumbens *	Prostrate Broom (s. Europe)	(L-M)
Cytisus•hirsutus	= Chamaecytisus•hirsutus	
Cytisus•multiflorus *	Portuguese Broom (se. Europe)	(L-M)
Cytisus•purgans *	----- (s. Eur. - n. Afr.)	(L-M)
Cytisus•scoparius *	Scotch Broom (c. & s. Europe)	(L-M)
Cytisus•x•praecox *	Warminster Broom (hort. hybrid)	(L-M)
Dalea•formosa *	Feather Plume (w. Tex., Okl., Colo.)(L	
Dalea•frutescens *	Black Dalea (w. Tex., Okla.)	(L)
Dalea•scoparia *	Broom Dalea (w. Tex., N. Mex., Az.)	(L)
Daphne•caucasica *	Caucasian Daphne (Caucasus)	(M+/-)
Daphne•genkwa *	----- (China)	(M+/-)
Daphne•giraldii *	Daphne (nw. China)	(M+/-)
Daphne•mezereum *	February Daphne (Europe, w. Asia)	(M+/-)
Decaisnea•fargesii *	----- Bluebean Shrub (w. China)	(M-H)
Deutzia•gracilis *	Slender Deutzia (Japan)	(M-H)
Deutzia•scabra *	Fuzzy Deutzia	(M-H)
Deutzia•x•lemoinei *	Lemoine Deutzia (Hort. hybrid)	(M-H)
Diervilla•lonicera *	----- (e. N. America)	(H)
Diervilla•sessilifolia *	Southern Bush-honeysuckle (se. USA)	(H)
Dipelta•floribunda *	----- (c. & w. China)	(M+/-)
Dipteronia•sinensis *	----- (China)	(M+/-)
Disanthus•cercidifolius *	----- (China, Jap.)	(H)
Elaeagnus•multiflora *	Cherry Elaeagnus (Jap., China)	(M-H)
Elentherococcus•sieboldianus *	----- (Jap., China)	(M+/-)
Eleutherococcus•senticosus *	Siberian Ginseng (ne. Asia)	(M-H)
Elsholtzia•stauntonii *	Mint Shrub (n. China)	(M+/-)
Euonymus•atropurpureus *	Wahoo (NY to Fla, Minn. to Tex.)	(M-H)
Euonymus•alatus	Burning Bush Euonymus (China, Jap., Kor.)	(M+/-)
Euonymus•bungeanus *	Winterberry (China, Korea, Manch., Jap.)	(M+/-)
Euonymus•europaeus *	Spindletree (Europe)	(M-H)
Euonymus•nanus•v. turkestanicus *	Turkestan Euonymus (Caucasus - w. China)	(M+/-)
Euonymus•phellomanus *	----- (n. & w. China)	(M+/-)
Euonymus•sachalinensis *	Sakhalin Euonymus (ne. Asia)	(M+/-)
Exochorda•albertii (now E. korolkowii)		
Exochorda•giraldii *	Pearlbush (c. China)	(M+/-)
Exochorda•korolkowii *	Pearlbush (Uzbekistan, Tajikistan)	(M+/-)
Exochorda•racemosa *	Common Pearlbush (n. China)	(M-H)
Exochorda•serratifolia *	Pearlbush (Korea, Manchuria)	(M+/-)
Exochorda•x•macrantha *	Pearlbush (hort. hybrid)	(M+/-)
Fontanesia•phillyreoides•ssp. fortunei *	----- (China)	(M+/-)
Forsythia•mandschurica *	Manchurian Forsythia (Manch.)	(M+/-)
Forsythia•ovata *	Early Forsythia (Korea)	(M+/-)
Forsythia•suspensa *	Forsythia (China)	(M+/-)
Forsythia•x•intermedia	Forsythia (hort. hybrid)	(M+/-)
Fothergilla•gardenii *	Fothergilla (Va. - Ga.)	(H)
Fothergilla•major *	----- (Allegheny Mts.)	(H)
Genista•tinctoria *	----- (Europe, w. Asia)	(L-M)
Halimodendron•halodendron *	Salt Tree (se. Russia-c. & w. Asia)	(VL-L)
Hamamelis•japonica *	Japanese Witch Hazel (Japan)	(H)

Hamamelis•mollis *	Chinese Witch Hazel (w. China)	(H)
Hamamelis•vernalis *	Witch Hazel (s.e. N. America)	(H)
Hamamelis•virginiana *	Common Witch Hazel (Canada to Georgia)	(H)
Heptacodium•miconioides *	----- (China)	(M+/-)
Hibiscus•syriacus	Rose-of-Sharon Hibiscus (China, India)	(M+/-)
Hippophaë•rhamnoides	Sea Buckthorn (Eurasia)	(M-H)
Holodiscus•discolor *	Rock Spirea (s. Ore.-s. Calif.)	(M+/-)
Hydrangea•arborescens	Hills-of-snow Hydrangea (e. USA)	(H)
Hydrangea•involucrata *	----- (Japan)	(H)
Hydrangea•paniculata	Peegee Hydrangea (China, Japan)	(H)
Hydrangea•quercifolia *	Oakleaf Hydrangea (se. USA)	(H)
Hydrangea•serrata *	----- (Jap., Korea)	(M-H)
Indigofera•amblyantha *	Pink Indigo (China)	(M+/-)
Indigofera•decora *	White Chinese Indigo (China)	(M+/-)
Indigofera•gerardiana *	= Indigofera•heterantha	
Indigofera•heterantha *	----- (Afghan.-w. China)	(M+/-)
Indigofera•incarnata *	= Indigofera•decora	
Indigofera•kirilowii *	----- (n. China, Korea)	(M+/-)
Indigofera•potaninii *	Potanin Indigo (nw. China)	(M+/-)
Itea•virginica *	Sweetspire (e. USA)	(H)
Jasminum•nudiflorum *	Winter Jasmine (China)	(M+/-)
Kerria•japonica	Kerria (Japan)	(M-H)
Kolkwitzia•amabilis	Beautybush (China)	(M+/-)
Leptodermis•oblonga *	----- (n. China)	(M+/-)
Lespedeza•bicolor *	----- (Japan)	(M+/-)
Lespedeza•thunbergii *	----- (Japan, China)	(M+/-)
Ligustrum•vulgare	Common Privet (Medit. region)	(M+/-)
Lindera•benzoin *	Spicebush (e. USA)	(M)
Lindera•obtusiloba *	----- (Kor., Jap., China)	(M-H)
Lonicera•spinosa *	----- (nw Him., Tibet, e. Turkestan)	(M+/-)
Lonicera•alberti *	----- (Turkestan, Tibet)	(M+/-)
Lonicera•caerulea *	----- (Tibet, e. Siberia)	(M+/-)
Lonicera•chrysantha *	----- (ne. Asia, c. Japan)	(M-H)
Lonicera•etrusca *	----- (Medit. to s. Switzerland)	(M+/-)
Lonicera•fragrantissima *	Winter Honeysuckle (China)	(M-H)
Lonicera•hispidula *	----- (Turkestan)	(M+/-)
Lonicera•korolkowii	----- (Mts. c. Asia, Afghan. Pak.)	(M+/-)
Lonicera•maackia *	Amur Honeysuckle (e. Asia)	(M-H)
Lonicera•maximowiczii•v. sachalinensis *	Sakhalin Honeysuckle (Manch, China, Kor.)	(M-H)
Lonicera•microphylla *	----- (nw. Him., Tibet, Sib.)	(M+/-)
Lonicera•morrowii *	Morrow Honeysuckle (Jap.)	(M-H)
Lonicera•pileata *	----- (China)	(M+/-)
Lonicera•quinquelocularis *	----- (Afghan. to Yunnan)	(M+/-)
Lonicera•spinosa•var. alberti *	Fragrant Turkestan Honeysuckle (c. Asia)	(M+/-)
Lonicera•standishii *	Fragrant Winter Honeysuckle (China)	(M+/-)
Lonicera•syringantha	Lilac-scented Honeysuckle (China, Tibet)	(M-H)
Lonicera•tatarica•'Zabelii'	Zabel's Honeysuckle (c. Asia, Afghan.)	(M+/-)
Lonicera•thibetica *	Tibetan Honeysuckle (Tibet., w. China)	(M+/-)
Lonicera•xylostium *	European Fly Honeysuckle (Eurasia)	(M+/-)
Lonicera•x•Xylostoides *	----- (garden origin)	(M+/-)
Lycium•chinense *	Chinese Wolfberry (e. Asia)	(M-H)

Magnolia•sieboldii *	Oyama Magnolia (Jap., Korea, w. China)	(H)
Magnolia•stellata	Star Magnolia (c. Japan)	(H)
Myrica•pensylvanica *	Bayberry (e. N. America)	(H)
Neillia•thibetica *	----- (Himalaya Mts.)	(M+/-)
Neviusii•alambamensis *	----- (se. USA)	(H)
Orixa•japonica *	----- (Japan, China, Korea)	(M+/-)
Paeonia•lutea *	Tree Peony (China, Tibet)	(M+/-)
Paeonia•suffruticosa *	Tree Peony (China, Tibet)	(M+/-)
Parrotia•persica *	----- (Persia)	(M+/-)
Parrotiopsis•jacquemontiana *	----- (Himalaya)	(M-H)
Philadelphus•coronarius +	Sweet Mockorange (Europe, sw. Asia)	(M+/-)
Philadelphus•x•virginialis +	----- (Hort. Hybrid)	(M+/-)
Photinia•villosa *	Oriental Photinia (China, Korea, Jap.)	(M-H)
Physocarpus•opulifolius	Dwarf Ninebark (e. N. America)	(M+/-)
Poncirus•trifoliata *	Trifoliate Orange (c. & n. China)	(M-H)
Prinsepia•sinensis *	----- (Manchuria)	(M+/-)
Prinsepia•uniflora *	----- (nw. China)	(M+/-)
Prunus•andersonii *	Desert Peach (sw. U.S.A.)	(L-M)
Prunus•cerasifera	Cherry Plum (A. Minor, Cauc.)	(M+/-)
Prunus•cerasifera•'Newport'	Newport Plum (garden origin)	(M+/-)
Prunus•fruticosa *	European Dwarf Cherry (Eur., Siberia)	(M+/-)
Prunus•nigra *	Canada Plum (ne. N. Am.)	(M-H)
Prunus•padus *	Bird Cherry (Eurasia)	(M+/-)
Prunus•tomentosa	Nanking Cherry (n. w. China, Tib. Kashmir)	(M-H)
Prunus•x•cistena	Cistena Plum (hort. hybrid)	(M+/-)
Pseudocdonia•sinensis *	Quince (China)	(M+/-)
Purnus•fasciculata *	Desert Almond (sw. USA)	(VL-L)
x•Pyracomeles•vilmorinii *	(Pyracanthus•crenatoserrataXOsteomeles•subrotunda)	(M+/-)
Rhamnus•dahuricus *	Common Buckthorn (e. Russia to Japan)	(M+/-)
Rhamnus•frangula	Glossy Buckthorn (Eur., Turk., n. Afr.)	(M+/-)
Rhamnus•frangula•'Asplenifolia' *	----- (Hort. Cultivar)	(M+/-)
Rhodotypos•scandens *	Jetbead (Japan, China)	(H)
Rhus•punjabensis *	----- (c., w. China)	(M+/-)
Rhus•typhina	Staghorn Sumac (e. N. America)	(M+/-)
Rhus•typhina•'Laciniata'	Cutleaf Staghorn Sumac (?)	(M+/-)
Ribes•alpinum	Alpine Currant (w. Europe)	(M-H)
Ribes•nevadense *	Sierra Currant (Ore., Cal., Nev.)	(M+/-)
Rosa•banksiae *	Banksia Rose (w. & c. China)	(M+/-)
Rosa•davidii *	David's Rose (w. & c. China)	(M+/-)
Rosa•ecae *	----- (c. Asia)	(M+/-)
Rosa•filipes *	----- (w. China)	(M+/-)
Rosa•foetida•'Bicolor'	Austrian Copper Rose (c. Asia)	(M-L)
Rosa•foetida•'Persiana'	Persian Yellow Rose (s.w. Asia)	(M-L)
Rosa•glauca	Redleaf Rose (c. & s. Europe)	(M+/-)
Rosa•helenae *	Helen Wilson's Rose (c. China)	(M+/-)
Rosa•hugonis	= R. xanthira•f. hugonis	
Rosa•kokanica *	----- (c. Asia, China)	(M+/-)
Rosa•laxa *	----- (c. Asia, nw. China)	(M+/-)
Rosa•moyesii *	Moyes Rose (w. China)	(M+/-)
Rosa•moyesii *	Moyes Rose (w. China)	(M+/-)
Rosa•persica *	Persian Rose (Persia, Afghan., c. Asia)	(M+/-)
Rosa•pulverulenta *	----- (s. Eur. to Afghanistan)	(M+/-)
Rosa•rubrifolia (now R. glauca)		

Rosa•rugosa	Rugosa Rose (e. Russia)	(M+/-)
Rosa•sericea *	----- (c. Asia, w. China)	(M+/-)
Rosa•setigera *	Prairie Rose (e. & c. USA)	(M+/-)
Rosa•webbiana	----- (c. Asia, Afghan, Kashmir.)	(M+/-)
Rosa•wichuriana *	----- (e. Asia)	(M+/-)
Rosa•xanthina•f. hugonis	Father's Rose (c. China)	(M+/-)
Rosa•x•harisonii *	Harison's Yellow Rose (Hort. hybrid)	(M+/-)
Salix•discolor	Pussy Willow (e. N. America)	(H)
Salix•matsudana•'Tortuosa'	Corkscrew Willow (China, Japan)	(H)
Sambucus•canadensis	Elderberry (e. N. America)	(H)
Sibiraea•altaiensis *	----- (w. China to Balkans)	(L-M)
Sibireae•laevigata	= Siberaea•altaiensis	
Sophora•davidii *	Father David's Sophora (China)	(L-M)
Sorbaria•sorbifolia	Ural False Spirea (Sib., Manch., Korea, Jap.)	(M+/-)
Sorbaria•tomentosa•v. angustifolia *	----- (Afghan., Pak., Kashmir)	(L-M)
Spiraea•betulifolia•var. lucida *	----- (B.C., Ore., Wyo., Mon.)	(M+/-)
Spiraea•cantoniensis *	----- (China)	(M+/-)
Spiraea•douglasii *	----- (B.C. to n. Cal.)	(M+/-)
Spiraea•japonica *	----- (Japan, China)	(M+/-)
Spiraea•japonica•'Albiflora' *	----- (Japan)	(M+/-)
Spiraea•japonica•'Anthony•Waterer'	Anthony Waterer Spirea (garden origin)	(M+/-)
Spiraea•japonica•'Bumalda'	----- (Hort. cultivar)	(M+/-)
Spiraea•japonica•'Froebelii'	Froebel's Spirea (garden origin)	(M+/-)
Spiraea•nipponica *	----- (Japan)	(M+/-)
Spiraea•trilobata	----- (n. Sib., Turkestan, n. China)	(L-M)
Spiraea•wilsonii *	----- (c. & w. China)	(M+/-)
Spiraea•x•vanhouttei	Vanhoutte Spirea (hort. hybrid)	(M+/-)
Spiraea•x•arguta*	Garland Spirea (garden origin)	(M+/-)
Staphylea•trifolia*	Bladdernut (e. USA)	(M-H)
Staphylea•holocarpa *	Oriental Bladdernut (China)	(H)
Staphylea•pinnata *	European Bladdernut (c., se. Eur. A. Minor)	(H)
Stephanandra•incisa *	Lace Shrub (Jap., Korea, Taiwan)	(H)
Stephanandra•tanakae *	Lace Shrub (Japan)	(M-H)
Stephylea•bumalda *	Japanese Bladdernut (Japan)	(M-H)
Symphoricarpos•x•chenaultii•'Hancock' +	Hancock Coralberry (garden origin)	(M+/-)
Symplocos•paniculata *	Sapphireberry (Pakistan to Korea)	(M +/-)
Syringa•amurensis *	= Syringa•reticulata•v. mandschurica	
Syringa•joskiae *	Hungarian Lilac (Hungary)	(M+/-)
Syringa•meyerii *	----- (n. China)	(M+/-)
Syringa•microphylla *	Littleleaf Lilac (n. China)	(M+/-)
Syringa•oblata *	Early Lilac (n. China)	(M+/-)
Syringa•patula *	----- (Korea, China)	(M+/-)
Syringa•persica	Persian Lilac (Persia)	(M+/-)
Syringa•persica•'Laciniata' *	Cutleaf Persian Lilac (Persia ?)	(M+/-)
Syringa•reflexa *	Nodding Lilac (c. China)	(M+/-)
Syringa•reticulata•'Miss•Kim'	Miss Kim Lilac (hort. hybrid)	(M+/-)
Syringa•sweginzowii *	Chengtu Lilac (nw. China)	(M+/-)
Syringa•velutina *	Korean Lilac (Korea)	(M+/-)
Syringa•villosa	----- (China)	(M+/-)
Syringa•vulgaris	Common Lilac (s.e. Europe)	(M+/-)
Syringa•wolfii *	Wolf's Lilac (Korea, Manchuria)	(M+/-)
Syringa•x•chinensis	----- (hort. hybrid)	(M+/-)
Syringa•x•laciniata	Cutleaf Lilac (sw. Asia)	(M+/-)
Syringa•x•prestoniae *	----- (Canadian hort. origin)	(M+/-)
Viburnum•burejaeticum *	----- (n. China, Korea, Russia)	(M-H)
Viburnum•carlesii	Korean Spice Viburnum (Korea, Jap.)	(M-H)
Viburnum•cassinoides *	Witherod Viburnum (e. N. Am.)	(H)

Viburnum•dentatum	Arrowwood Viburnum (e. N. America)	(H-M)
Viburnum•dilatatum *	Linden Viburnum (China, Jap.)	(H)
Viburnum•farreri *	Fragrant Viburnum (n. China)	(H)
Viburnum•lantana	Wayfaring Vib. (Eur., n. Afr., Cauc. A. Minor)	(M+/-)
Viburnum•lentago	Nannyberry (e. N. America)	(M-H)
Viburnum•opulus	European Highbush Cranberry (Eurasia)	(H)
Viburnum•opulus•'Compactum'	----- (cultivar)	(H)
Viburnum•opulus•'Roseum'	European Snowball Viburnum	(H)
Viburnum•plicatum *	----- (Jap., China)	(H-M)
Viburnum•plicatum•'Sterile' *	Japanese Snowball Viburnum (Jap. China)	(H)
Viburnum•plicatum•form•'tomentosum' *	Doublefile Viburnum (Jap., China)	(H)
Viburnum•prunifolium	Black Haw (e. N. Am.)	(M-H)
Viburnum•sargentii *	Sargent's Vib. (e. Sib., n. & w. China, Jap.)	(M-H)
Viburnum•setigerum *	Tea Viburnum (c. & w. China)	(M+/-)
Viburnum•sieboldii *	----- (Japan)	(H)
Viburnum•trilobum	American Highbush Cranberry (N. America)	(H)
Viburnum•trilobum•'Compactum'	----- (cultivar)	(H)
Viburnum•x•bodnantense•'Pink•Dawn' *	----- (hort. hybrid)	(M-H)
Viburnum•x•carlcephalum	----- (hort. hybrid)	(M-H)
Vitex•agnus-castus•f. latifolia *	Hardy Chaste Tree (s. Europe to c. Asia)	(L-M)
Vitex•negundo•var. heterophylla *	Cutleaf Chaste Tree (n. China, Mongolia)	(M+/-)
Vitex•rotundifolia *	----- (Asia to Australia)	(M+/-)
Weigela•florida	Weigela (n. China, Korea, Jap.)	(H)
Weigela•middendorffiana *	Middendorff Weigela (n. China, Jap.)	(H)
Xanthocerus•sorbifolium	Yellowhorn (n. China)	(M+/-)
Zanthoxylum•piperitum *	Pepper Tree (China, Korea, Jap.)	(M+/-)
Zanthoxylum•schinifolium *	Pepper Tree (China, Korea, Jap.)	(M+/-)
Zanthoxylum•simulan *	----- (China, Taiwan)	(M-H)
Zenobia•pulverulenta *	Dusty Zenobia (N. Carolina-Florida)	

Trees

(Deciduous Rocky Mountain Natives)

[Revised April '03]

WATER NEEDS OF PLANTS

The following chart shows how to group plants based on their water needs.
Reference Location: Denver. Numbers illustrate typical conditions.

* = Plants with potential, but requiring caution due to limited history in Rocky Mountain landscaping.

HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation
Celtis•occidentalis Celtis•reticulata	Hackberry Netleaf Hackberry		(M-H) (M-H)
Fraxinus•cuspidata * Fraxinus•pennsylvanica	Fragrant Ash Green Ash		(M+/-) (M-H)
Populus•angustifolia Populus•deltoides Populus•fremontii Populus•tremuloides Populus•x•acuminata	Narrowleaf Cottonwood Plains Cottonwood Fremont's Cottonwood Aspen Lanceleaf Cottonwood		(H) (H) (H) (H) (H)
Sapindus•drummondii *	Soapberry		(L-M)

Trees

(Deciduous, Introduced)

[Revised April '03]

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Acer•capillipes *	Snake-bark Maple (Japan)	(H)
Acer•cappadocicum *	Caucasian Maple (Cauc., A. Minor, n. India)	(M-H)
Acer•cissifolium *	Ivy-leaved Maple (c. China)	(M-H)
Acer•davidii *	Snake-bark Maple (n. China)	(M-H)
Acer•griseum *	Paperbark Maple (China)	(M-H)
Acer•heldreichii *	Greek Maple (Cauc., Balk., n. Turkey)	(M-H)
Acer•macrophyllum *	Oregon Maple (w. N. Am.)	(H)
Acer•mandschuricum *	Manchurian Maple (Korea, Manch.)	(M-H)
Acer•monspessulanum *	Montpelier Maple (Medit.- c. Asia)	(M+/-)
Acer•palmatum	Japanese Maple (Kor., Jap.)	(H)
Acer•pectinatum	----- (Tibet, w. & c. China)	(M-H)
Acer•platanoides	Norway Maple (Eur. to n. Persia)	(M-H)
Acer•platanoides•ssp. turkestanicum *	Turkestan Maple (c. Asia)	(M+/-)
Acer•pseudoplatanus *	Sycamore Maple (nw. c. Eur. to w. Asia)	(M-H)
Acer•pseudosieboldianum *	Korean Maple (Korea-Manch.)	(H)
Acer•rubrum	Red Maple (e. N. America)	(M-H)
Acer•saccharinum	Silver Maple (e. N. Am.)	(M-H)
Acer•saccharinum•'Laciniatum' +	Cutleaf Silver Maple (hort. cultivar)	(M-H)
Acer•saccharum	Sugar Maple (e. N. America)	(H)
Acer•triflorum *	Three-flowered Maple (Manch., Korea)	(M+/-)
Acer•truncatum *	Shantung Maple (n. China, Manch., Korea)	(H)
Acer•turkestanicum *	= A. platanoides ssp. turkestanicum	
Aesculus•flava	Sweet Buckeye (e. N. America)	(M-H)
Aesculus•glabra	Ohio Buckeye (e. N. America)	(M-H)
Aesculus•hippocastanum	Horse Chestnut (Eurasia)	(M-H)
Aesculus•octandra	= Aesculus•flava	
Aesculus•pavia *	Red Buckeye (se. USA)	(H)
Aesculus•turninata *	Japanese Horsechestnut (Japan)	(M-H)
Aesculus•x•carnea *	Red-flowered Horsechestnut (hort. hybrid)	(M+/-)
Ailanthus•altissima	Tree of Heaven (n. China)	(L-M-H)
Albizia•julibrissin*	Silk Tree (Iran-Japan)	(M+/-)
Amelanchier•asiatica *	Asiatic Serviceberry (China)	(M+/-)
Asimia•triloba *	Paw Paw (ec. USA)	(H?)
Betula•albosinensis *	Chinese Red Birch (c., w., nw. China)	(M-H)
Betula•ermanii *	Russian Rock Birch (ne. Asia)	(H)
Betula•mandshurica•var. japonica *	Japanese White Birch (Jap., Sakhalin Is.)	(H)
Betula•maximowicziana *	Monarch Birch (Jap.)	(H)
Betula•nigra	River Birch (e. USA)	(H)

Betula•papyrifera	Paper Birch (e. N. America)	(H)
Betula•pendula'•Lacinata'	Cutleaf Weeping Eur.. Birch (hort. hybrid)	(H)
Betula•pendula	European Birch (Eur.-w. Asia)	(H)
Betula•utilis•var. •jacquemantii *	Whitebarked Himal. Birch (Kash., c. Nepal)	(M-H)
Carpinus•betulus *	European Hornbeam (Eur.-w. Asia)	(H)
Carpinus•carolinana *	American Hornbeam (e. N. America)	(H)
Carpinus•cordata *	Heartleaf Hornbeam (China)	(M-H)
Carpinus•henryana *	----- (c. China)	(M-H)
Carpinus•japonica *	Japanese Hornbeam (Japan)	(H)
Carpinus•laxiflora *	----- (Jap., Kor., n. & w. China)	(M-H)
Carpinus•orientalis *	Oriental Hornbeam (se. Eur., A. Minor)	(M-H)
Carpinus•tschonoskii *	Yeddo Hornbeam (ne. & sw. China)	(M-H)
Carpinus•turczaninowii *	----- (w. China)	(M+/-)
Carya•illinoensis *	Pecan (Iowa s. to Mexico)	(M+/-)
Carya•laciniosa *	Shellbark Hickory (e. N. America)	(M-H)
Carya•ovata *	Shagbark Hickory (e. N. America)	(H)
Castanea•crenata *	Japanese Chestnut (Jap.)	(H)
Castanea•dentata	American Chestnut (e. N. America)	(H)
Castanea•mollissima *	Chinese Chestnut (China, Korea)	(M-H)
Catalpa•bignonioides *	Southern Catalpa (se. USA)	(H)
Catalpa•bungei *	----- (n. China)	(M+/-)
Catalpa•fargesii *	----- (w. China)	(M+/-)
Catalpa•ovata *	Chinese Catalpa (China)	(H)
Catalpa•speciosa	Catalpa (e. N. America)	(M-H)
Celtis•australis *	Mediterranean Hackberry (Medit., Mid East)	(M+/-)
Celtis•caucasica *	Caucasian Hackberry (Asia Minor-Afghan.)	(M+/-)
Celtis•laevigata	Sugarberry (se. USA)	(M-H)
Cercidiphyllum•japonicum *	Katsura Tree (Japan, w. China)	(H-M)
Cercis•canadensis	Eastern Redbud (e. N. America)	(M-H)
Cercis•reniformis *	Texas Redbud (N. Mex., Tex., Okla.)	(M+/-)
Chitalpa	= x•Chitalpa•tashkentensis	
Cladrastis•lutea *	Yellowwood (se. USA)	(H)
Cladrastis•platycarpa *	Japanese Yellowwood (Jap., China)(H)	
Cladrastis•sinensis *	Chinese Yellowwood (China)	(H)
Corlyus•columna	Turkish Hazel (se. Europe, w. Asia)	(M+/-)
Cornus•walteri *	Walter Dogwood (c. China)	(M-H)
Corylus•americana *	American Hazel (e. N. America)	(H)
Crataegus•altaica'•Hissarica' *	Hissar Hawthorn (Tajikistan)	(M+/-)
Crataegus•ambigua +	Russian Hawthorn (se. Russia)	(M+/-)
Crataegus•arnoldiana *	----- (New England)	(M+/-)
Crataegus•azarolus *	Red Azarole (s. Eur., n. Afr., w. Asia)	(M+/-)
Crataegus•crus-galli	Cockspur Hawthorn (se. N. America)	(M+/-)
Crataegus•laevigata *	English Hawthorn (Eur., n. Afr., India)	(M-H)
Crataegus•maximowiczii *	----- (ne. Asia)	(M±)
Crataegus•mollis	Downy Hawthorn (e. N. America)	(M+/-)
Crataegus•monogyna *	Singleseed Hawthorn (Eur., n. Afr., w. Asia)	(M+/-)
Crataegus•pedicellata *	----- (ne. USA)	(M+/-)
Crataegus•phaenopyrum	Washington Hawthorn (se. N. America)	(M+/-)
Crataegus•pinnatifida *	Chinese Hawberry (c. Asia, Korea)	(M+/-)
Crataegus•rivularis *	----- (Rocky Mtn. States)	(M+/-)
Crataegus•tianshanica *	Tien Shan Hawthorn (c. Asia)	(M+/-)
Crataegus•turkestanica *	Turkestan Hawthorn (Turkestan)	(M+/-)
Crataegus•viridis•Winter•King' *	Winter King Hawthorn (e. USA)	(M+/-)
Crataegus•x•nitida *	Shining Hawthorn (s. USA)	(M+/-)
Cyrrilla•racemiflora *	Leatherwood (e. N. Am. & e. S. Am.)	(H)
x•Chitalpa•tashkentensis *	Chitalpa (Catalpa•bignonioides X Chilopsis•linearis)	(M+/-)
Diospyros•virginiana *	American Persimmon (e. USA)	(M-H)

Eucommia•ulmoides *	Hardy Rubber Tree (c. China)	(M+/-)
Evodia•daniellii *	= Tetradium•daniellii *	
Evodia•hupehensis *	= Tetradium•hupehensis *	
Fagus•grandifolia *	American Beech (e. N. America)	(H)
Fagus•orientalis *	Oriental Beech (se. Eur.-Iran)	(M+/-)
Fagus•sylvatica	European Beech (Europe)	(H)
Fraxinus•americana	White Ash (e. N. America)	(M-H)
Fraxinus•americana•'Autumn•Purple'	Autumn Purple Ash (hort. cultivar)	(M-H)
Fraxinus•angustifolia•'Raywood' *	Raywood Ash (s. Europe-c. Asia, n. Afr.)	(M+/-)
Fraxinus•angustifolia•ssp. syriaca *	Turkestan Ash (c. Asia, A. Minor)	(M+/-)
Fraxinus•chinensis *	Chinese Ash (China)	(M+/-)
Fraxinus•cuspidata *	Flowering Ash (N. Mex. to Mex.)	(L-M)
Fraxinus•excelsior *	European Ash (Europe, w. Asia)	(M+/-)
Fraxinus•latifolia *	Oregon Ash (w. US)	(M+/-)
Fraxinus•mandshurica *	Manchurian Ash (n. Asia)	(M+/-)
Fraxinus•nigra *	Black Ash (N. Am.)	(M+/-)
Fraxinus•ornus *	Flowering Ash (s. Europe-w. Asia)	(M+/-)
Fraxinus•oxycarpa•'Raywood' *	= F. angustifolia 'Raywood'	
Fraxinus•quadrangulata *	Blue Ash (Mich., to Ark.)	(M-H)
Fraxinus•sieboldiana *	----- (Japan, China)	(M-H)
Fraxinus•sogdiana *	= Fraxinus•angustifolia•ssp. syriaca	
Fraxinus•velutina *	Velvet Ash (Ariz., N. Mex.)	(M+/-)
Ginkgo•biloba *	Ginkgo, Maidenhair Tree (se. China)	(M-H)
Gleditsia•caspica *	Caspian Honeylocust (Azerbaijan-n. Iran)	(M+/-)
Gleditsia•triacanthos•var.	Honeylocust varieties (c. & e. N. America)	(M-H)
Gymnocladus•dioica	Kentucky Coffeetree (c. & e. N. America)	(M-H)
Halesia•diptera *	Two-winged Silverbell (s. USA)	(H)
Halesia•tetraptera *	Silverbell Tree (se. USA)	(H)
Hemiptelea•davidii *	David Hemiptelea (n. China to Korea)	(M-H)
Hovenia•dulcis *		
Idesia•polycarpa *	----- (Sichuan)	(M-H)
Juglans•ailanthifolia *	Japanese Walnut (Jap.)	(M+/-)
Juglans•ailantifolia *	Heartnut (Japan)	(H)
Juglans•cinerea *	White Butternut (N. America)	(M+/-)
Juglans•mandshurica *	Manchurian Walnut (Manchuria, ne. China)	(M+/-)
Juglans•microcarpa *	Little Walnut (OK., N. Mex., Tex., Kan., Mex.)	(M+/-)
Juglans•nigra	Black Walnut (e. USA)	(M-H)
Juglans•regia•varieties *	Carpathian Walnut varieties (se. Eur. - China)	(M+/-)
Kalopanax•pictus *	= Kalopanax•septemlobus	
Kalopanax•septemlobus *	Castor-aralia (China, Korea, Japan)	(M-H)
Koelreuteria•paniculata	Golden Raintree (n. China, Korea)	(M+/-)
Laburnum•alpinum *	Alpine Golden Chaintree (sc. Europe)	(M-H)
Laburnum•anagyroides *	Common Laburnum (c. & s. Eur.)	(M+/-)
Laburnum•X•'Waterer' *	Waterer Laburnum (hort. hybrid)	(H)
Larix•decidua	European Larch (Alps, Carpathian Mts.)	(H)
Larix•gmelinii *	Dahurian Larch (e. Asia)	(H)

Larix•kaempferi *	Japanese Larch (Japan)	(H)
Larix•laricina	Tamarack (n. N. America)	(H)
Larix•leptolepis *	= Larix•kaempferi	
Larix•occidentalis *	Rocky Mtn. Larch (B.C. to Montana)	(M-H)
Liquidambar•styraciflua *	Sweetgum (e. N. America to c. America)	(H)
Liriodendron•tulipifera *	Tulip Tree (e. N. America)	(H)
Maackia•amurensis *	Amur Maackia (Manchuria, Korea)	(M+/-)
Maackia•chinensis *	----- (c. China)	(M+/-)
Maclura•pomifera *	Osage Orange (Ark., Tex.)	(M+/-)
Magnolia•acuminata *	Cucumber Tree (e. N. AM)	(H)
Magnolia•kobus *	Tree Star Magnolia (Japan)	(M-H)
Magnolia•x•soulangiana	Saucer Magnolia (hort. hybrid)	(H)
Malus•'Hopa'	Hopa Crabapple (hort. cultivar)	(M+/-)
Malus•'Radiant'	Radiant Crabapple (hort. cultivar)	(M+/-)
Malus•'Snowdrift'	Snowdrift Crabapple (hort. cultivar)	(M+/-)
Malus•baccata	Siberian Crabapple (Manchuria, China)	(M+/-)
Malus•dolgo	Dolgo Crabapple (Siberia ?)	(M+/-)
Malus•ioensis	Prairie Crabapple (c. USA)	(M+/-)
Malus•ioensis•'Plena'	Bechtel Crabapple (hort. cultivar)	(M+/-)
Malus•sp. •'Golden•Delicious'	Golden Delicious Apple (hort. cultivar)	(M+/-)
Malus•sp. •'Red•Delicious'	Red Delicious Apple (hort. cultivar)	(M+/-)
Malus•sp. •'Winesap'	Winesap Apple (hort. cultivar)	(M+/-)
Malus•spp.	Common Apple (se. Europe, c. Asia)	(M+/-)
Mespilus•germanica *	Medlar (Europe-Asia Minor)	(M+/-)
Metasequoia•glyptostroboides *	Dawn Redwood (w. China)	(M-H)
Morus•alba	White Mulberry (Asia)	(M+/-)
Morus•australis *	----- (e. Asia)	(M+/-)
Morus•nigra *	Black Mulberry (sw. Asia)	(M+/-)
Morus•rubra *	Red Mulberry (e. N. America)	(M+/-)
Nothofagus•antarctica *	Southern Beech (Chile, Argentina)	(H)
Nyssa•sylvatica *	Blackgum (Ontario, Texas)	(H)
Ostrya•carpinifolia *	European Hop Hornbeam (s. Eur., se. Asia)	(M)
Ostrya•virginiana *	American Hop Hornbeam (e. N. America)	(H)
Paulownia•fortunei*	----- (China, Japan)	(H)
Paulownia•kawakamii*	----- (s. China, Taiwan)	(H)
Paulownia•tomentosa *	Empress Tree (c. & w. China)	(M-H)
Phellodendron•amurense *	Amur Cork Tree (n. China, Jap., Manch.)	(M-H)
Phellodendron•chinese *	Chinese Cork Tree (c. China)	(M-H)
Phellodendron•Japonicum *	Japanese Cork Tree (c. Japan)	(H)
Phellodendron•sachalinense *	Sakhalin Cork Tree (w. China, n. Jap., Kor.)	(H)
Pistacia•chinensis *	Chinese Pistachio (China, Taiwan)	(L-M)
Pistacia•vera *	Edible Pistachio (Persia, c. Asia)	(L-M)
Platanus•occidentalis *	Eastern Plane Tree (la., to Tex. to Mex.)	(H)
Platanus•orientalis *	Oriental Plane Tree (se. Eur., sw. Asia)	(M+/-)
Platanus•x•acerifolia *	London Plane Tree (hort. hybrid)	(H)
Prunus•armeniaca	Apricot (c. & e. Asia)	(M+/-)
Prunus•armeniaca•var. •mandshurica *	= Prunus•mandshurica	
Prunus•avium *	Bird Cherry (Eur.-A. Minor-e. Sib.)	(H-M)
Prunus•cerasus *	Pie Cherry (se. Eur., Iran, n. India)	(M+/-)
Prunus•cerasus•'Meteor'	Meteor Pie Cherry (hort. cultivar)	(M+/-)
Prunus•cerasus•'Morello'	Morello Pie Cherry (hort. cult.)	(M+/-)
Prunus•cerasus•x•'Montmorency'	Montmorency Pie Cherry (hort. cultivar)	(M+/-)
Prunus•cerasus•x•'North•Star'	North Star Pie Cherry (hort. cultivar)	(M+/-)
Prunus•maackii	Manchurian Cherry (Kor. Manch.)	(M-H)

Prunus•mahleb *	St. Lucie Cherry (Eur.-Asia Minor)	(M+/-)
Prunus•mandshurica *	Manchurian Apricot (Manchuria, Korea)	(M+/-)
Prunus•persica	Peach (c. & e. Asia)	(M+/-)
Prunus•salicina *	Japanese Plum (China, Jap.)	(H-M)
Prunus•sp. •'Green•Gage'	Green Gage Plum (hort. cultivar)	(M+/-)
Prunus•sp. •'Stanely'	Stanley Plum (hort. cultivar)	(M+/-)
Prunus•spp.	Domestic Plums	(M+/-)
Prunus•x•dasycarpa * (P. •armenica x P. •cerasifera)	Black Apricot (c. Asia-Asia Minor)	(M-L)
Pseudolarix•kaempferi *	Golden Larch (e. China)	(H?)
Ptelea•polyadenia*	----- (sw. USA)	(M+/-)
Pterocarya•fraxinifolia *	Caucasian Walnut (Caucasus, Persia)	(M+/-)
Pteroceltis•tartarianovii *	Tartar Wingceltis (n., c. China)	(M+/-)
Pterostyrax•hispidula *	Fragrant Epaulette Tree (Japan, China)	(H?)
Pyrus•bucharica *	= Pyrus•korshinsky	
Pyrus•calleryana•'Bradford'	Bradford Pear (China)	(M+/-)
Pyrus•communis +	Common Garden Pear (Europe, w. Asia)	(M+/-)
Pyrus•communis•'Maxine'	Maxine Pear (hort. cultivar)	(M+/-)
Pyrus•communis•'Moonglow'	Moonglow Pear (hort. cultivar)	(M+/-)
Pyrus•korshinsky *	Buchara Pear (Turkestan)	(L-M)
Pyrus•salicifolia *	Willow-leaved Pear (se. Europe, w. Asia)	(M+/-)

Quercus•acutissima *	Sawtooth Oak (Japan, China, Korea)	(M-H)
Quercus•alba	White Oak (e. USA)	(M+/-)
Quercus•bicolor	Swamp White Oak (ne. N. Am.)	(M+/-)
Quercus•douglasii *	California Blue Oak (w. US)	(M+/-)
Quercus•frainetto *	Hungarian Oak (s. Italy, Balk., Turkey)	(M+/-)
Quercus•glandulifera *	----- (Jap., Korea, China)	(M+/-)
Quercus•imbricaria *	Shingle Oak (e. & c. USA)	(M-H)
Quercus•kelloggii *	California Black Oak (w. US)	(M+/-)
Quercus•macrocarpa	Bur Oak (c., ne. N. America)	(M+/-)
Quercus•mongolica *	Mongolian Oak (ne. Asia)	(M+/-)
Quercus•muehlenbergii *	Chinquapin Oak (e. USA)	(M-H)
Quercus•palustris	Pin Oak (ne. N. America)	(M-H)
Quercus•phellos *	Willow Oak (se. USA)	(M-H)
Quercus•prinus *	Chestnut Oak (e. USA)	(M-H)
Quercus•robur	English Oak (Europe, n. Afr., w. Asia)	(M-H)
Quercus•rubra	Northern Red Oak (ne. USA)	(M-H)
Quercus•sadleriana *	Deer Oak (w. USA)	(M+/-)
Quercus•shumardii *	Shumard's Oak (c. USA)	(M-H)
Quercus•vacciniifolia *	Huckleberry Oak (w. US)	(M+/-)

Salix•pentandra *	Laurel-leaf Willow (Eur.)	(H)
Sassafras•albidum *	Sassafras (e. N. Am.)	(H)
Sophora•davidii *	David's Sophora (China)	(L-M)
Sophora•japonica (aka Styphnolobium•japonicum)	Japanese Pagoda Tree (China, Korea)	(M+/-)
Sorbus•tortinialis *	Chequer Tree (A. Minor, n. Africa, Eur. Asia)	(H)
Sorbus•alnifolia *	----- (Jap., Korea)	(H)
Sorbus•americana	American Mtn. Ash (ne. N. America)	(M-H)
Sorbus•aria*	Whitebeam Mtn. Ash (Eur.)	(H)
Sorbus•aucuparia	European Mtn. Ash (Eurasia)	(M-H)
Sorbus•cashmeriana *	Kashmir Mountain Ash (Himalaya)	(H)
Sorbus•commixta *	----- (Korea, Japan)	(M-H)
Sorbus•decora	Showy Mountain Ash (ne. N. America)	(M-H)
Sorbus•forrestii *	Forest's Mountain Ash (China)	(M-H)
Sorbus•hupehensis *	Hupeh Mtn. Ash (c., w. China)	(M-H)
Sorbus•intermedia *	Scandinavian Mtn. Ash (Scand.)	(H)
Sorbus•latifolia *	----- (Europe)	(M-H)
Sorbus•pohuashanensis *	----- (n. China)	(H)
Sorbus•prattii *	Pratt's Mountain Ash (w. China)	(M+/-)
Sorbus•tianschanica *	Tien Shan Mtn. Ash (c. Asian mtns.)	(H)

<i>Sorbus</i> • <i>x</i> • <i>hybrida</i> *	Oakleaf Mtn. Ash (hort. hybrid)	(H)
<i>Stranvaesia</i> • <i>davidiana</i> *	Chinese <i>Stranvaesia</i> (w. China)	(H)
<i>Styphnolobium</i> • <i>japonicum</i>	see <i>Sophora</i> • <i>japonica</i>	
<i>Styrax</i> • <i>japonicum</i> *	Japanese Snowball (Japan, China)	(H)
<i>Styrax</i> • <i>obassia</i> *	Fragrant Snowbell (Japan)	(H)
<i>Syringa</i> • <i>pekinensis</i>	Peking Tree Lilac (n. China)	(M+/-)
<i>Syringa</i> • <i>reticulata</i>	Japanese Tree Lilac (n. Japan)	(M-H)
<i>Syringa</i> • <i>reticulata</i> •var.• <i>mandschurica</i>	Manchurian Tree Lilac (Japan)	(M+/-)
<i>Taxodium</i> • <i>ascendens</i> *	Pond Cypress (se. USA)	(H)
<i>Taxodium</i> • <i>distichum</i>	Bald Cypress (se. N. America)	(H)
<i>Tetradium</i> • <i>danielii</i> *	Korean <i>Evodia</i> (China, Korea)	(H)
<i>Tetradium</i> • <i>hupehensis</i> *	Hupeh Bee Bee Tree (sw. China, Korea)	(M+/-)
<i>Tilia</i> • <i>americana</i>	Basswood (c., e. N. America)	(H)
<i>Tilia</i> • <i>amurensis</i> *	Amur Linden (Manch., Korea)	(M-H)
<i>Tilia</i> • <i>cordata</i>	Littleleaf Linden (Eur. to Caucasus)	(H)
<i>Tilia</i> • <i>mongolica</i> *	Mongolian Linden (Mon., e. Russia, n. China)	(M-H)
<i>Tilia</i> • <i>platyphyllos</i> *	Bigleaf Linden (se., Europe)	(M-H)
<i>Tilia</i> • <i>tomentosa</i> *	Silver Linden (se. Europe, w. Asia)	(M+/-)
<i>Tilia</i> • <i>x</i> • <i>euchlora</i> *	Crimean Linden (hort. hybrid)	(M-H)
<i>Toona</i> • <i>sinensis</i>	----- (China)	(M-H)
<i>Ulmus</i> • <i>parvifolia</i> *	Chinese Elm (China, Japan, Korea)	(M-H)
<i>Ulmus</i> • <i>americana</i> •cvs.	American Elm (DED resistant cultivars)	(L-M-H)
<i>Zelkova</i> • <i>carpinifolia</i> *	Caucasian <i>Zelkova</i> (Cauc.)	(M-H)
<i>Zelkova</i> • <i>serrata</i> *	Japanese <i>Zelkova</i> (Jap., Taiwan, e. China)	(H)
<i>Zelkova</i> • <i>sinica</i> *	Chinese <i>Zelkova</i> (e. China)	(H)
<i>Ziziphus</i> • <i>jujuba</i> *	Chinese <i>Jujuba</i> (temp. Asia)	(H-M)

EVERGREENS**(Coniferous Trees)**

[Revised April '03]

WATER NEEDS OF PLANTS

The following chart shows how to group plants based on their water needs.
Reference Location: Denver. Numbers illustrate typical conditions.

* = Plants with potential, but requiring caution due to limited history in Rocky Mountain landscaping.

HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation
Abies•cilicica *		Cilician Fir (s. Turkey, nw. Syria, Lebanon)	(M-H)
Abies•concolor		White Fir (Colo. to Mex.)	(M-H)
Abies•holophylla *		Manchurian Fir (Manch., Korea)	(M-H)
Abies•homolepis *		Nikko Fir (Japan)	(H)
Abies•koreana *		Korean Fir (s. Korea)	(H)
Abies•lasiocarpa		Subalpine Fir (Rocky Mtns.)	(H)
Abies•nordmanniana *		Caucasian Fir (Greece, Cauc., Turkey)	(M)
Calocedrus•decurrens *		Incense Cedar (w. Ore.-Baja Calif.)	(M-H)
Cedrus•atlantica *		= Cedrus•libani•ssp. atlantica	
Cedrus•deodara *		Deodara Cedar (Himalaya Mts. Afghan.-w. Nepal)	(M-H)
Cedrus•libani *		Lebanon Cedar (nw. Syria, se Turkey)	(M-H)
Cedrus•libani•ssp. atlantica *		Atlas Cedar (Atlas Mts.)	(M-H)
Cedrus•libani•ssp. stenocoma *		Hardy Turkish Cedar (s. Turkey)	(M-H)
Cupressus•arizonica *		Arizona cypress (Ariz., N. Mex., Tex., Mex.)	(L-M)
Cupressus•bakeri *		Modoc Cypress (Calif., Oregon)	(M+/-)
Picea•abies		Norway Spruce (n. & c. Europe)	(H)
Picea•engelmannii		Engelmann Spruce (B.C. to N. Mex.)	(H)
Picea•glauca		White Spruce (n. N. Am.)	(M-H)
Picea•glauca•'Black•Hills'		Black Hills Spruce (Black Hills S.Dak.)	(M-/-)
Picea•glauca•'Conica'		Dwarf Alberta Spruce (hort. cultivar)	(H)
Picea•omorika *		Serbian Spruce (Balk.)	(M-H)
Picea•pungens		Colorado Spruce (Wyo., Colo., N. Mex., Utah)	(M-H)
Picea•schrenkiana•ssp. tianshanica *		----- (c. Asia)	(M+/-)
Pinus•heldreichii (was P. leucodermis) *		Bosnian Pine (w. Balkans - se. Italy - Greece)	(M+/-)
Pinus•aristata		Bristlecone Pine (Mts. Cal. to Colo.)	(M, H)
Pinus•bungeana *		Lacebark Pine (nw. China)	(M+/-)
Pinus•cembra *		Swiss Stone Pine (c. Eur. mtns.)	(M-H)
Pinus•contorta•ssp. latifolia		Lodgepole Pine (Alaska, Cal., to Colo.)	(M-H)
Pinus•densiflora *		Japanese Red Pine (Jap., Korea)	(M-H)
Pinus•flexilis		Limber Pine (Albt. to Cal. to Tex.)	(M-H)
Pinus•nigra		Austrian Pine (se. Eur., w. Asia, n. Afr.)	(M-H)
Pinus•peuce *		Macedonian Pine (Balk.)	(M-H)
Pinus•ponderosa		Ponderosa Pine (w. North America)	(M+/-)
Pinus•pumila *		Dwarf Siberian Pine (ne. Asia)	(H)
Pinus•strobiformis		Southwestern White Pine (Colo., Ariz., n. Mex.)	(M-H)

Pinus•strobus	Eastern White Pine (e. N. America)	(H)
Pinus•sylvestris	Scotch Pine (n. Eurasia)	(M-H)
Pinus•wallichiana *	Himalayan White Pine (Himalaya Mtns.)	(M-H)
Pseudotsuga•menziesii	Douglas Fir (B.C. to Mex. to Tex.)	(M-H)
Sequoiadendron•giganteum *	Giant Sequoia (Sierra Nevada Mts.)	(H)
Tsuga•canadensis	Canada Hemlock (ne. N. America)	(H)

EVERGREENS**(Coniferous Shrubs)**

[Revised April '03]

WATER NEEDS OF PLANTS

The following chart shows how to group plants based on their water needs.

Reference Location: Denver. Numbers illustrate typical conditions.

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HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation
Chamaecyparis•pisifera *	----- (Japan)		(H)
Juniperus•chinensis	Chinese Juniper (e. Asia)		(L-M)
Juniperus•chinensis•'Hetzii•'Glaucua'	Hetzi Juniper (hort. cultivar)		(L-M)
Juniperus•chinensis•'Pfitzeriana'	Pfitzer Juniper (hort. cultivar)		(L-M)
Juniperus•chinensis•'Pfitzeriana•'Compacta'	Compact Pfitzer Juniper (hort. cultivar)		(L-M)
Juniperus•chinensis•'Tortulosa' *	Hollywood Juniper (hort. cultivar)		(L-M)
Juniperus•chinensis•var. •sargentii	Sargent's Juniper (e. Asia)		(L-M)
Juniperus•communis•saxatilis	Mountain Common Juniper (circumboreal)		(L-M)
Juniperus•horizontalis	Horizontal Juniper (Nov. Sc. to Alaska, N J., to Mon.,)		(L-M)
Juniperus•horizontalis•'Bar•Harbor'	Bar Harbor Juniper (hort. cultivar)		(L-M)
Juniperus•horizontalis•'Blue•Chip'	Blue Chip Juniper (e. Asia)		(L-M)
Juniperus•horizontalis•'Plumosa'	Andorra Juniper (hort. cultivar)		(L-M)
Juniperus•horizontalis•'Prince•of•Wales'	Prince of Wales Juniper (hort. cultivar)		(L-M)
Juniperus•horizontalis•'Wiltonii'	Wilton Carpet Juniper (hort. cultivar)		(L-M)
Juniperus•monosperma	Oneseed Juniper (Colo., Utah, Tex., Mex.)		(VL-L)
Juniperus•osteosperma	Utah Juniper (sw. USA)		(VL-L)
Juniperus•procumbens var. & cv.	Japgarden Juniper varieties and cultivars		(M-H)
Juniperus•sabina	Savin Juniper (w. Asia)		(L-M)
Juniperus•sabina•'Buffalo'	Buffalo Juniper (hort. cultivar)		(L-M)
Juniperus•sabina•'Skandia'	Skandia Juniper (hort. cultivar)		(L-M)
Juniperus•sabina•var. •tamariscifolia	Tam Juniper (hort. cultivar)		(L-M)
Juniperus•scopulorum	Rocky Mtn. Juniper (B.C. to s. Ariz., to Tex.)		(L)
Juniperus•squamata	----- (India, Tibet, Taiwan)		(M+/-)
Juniperus•squamata•'Meyeri'	----- (hort. cultivar)		(M+/-)
Juniperus•virginiana	Eastern Redcedar (e. N. Am.)		(M-H)
Microbiota•decussata *	Siberian Cypress (Siberia)		(M+/-)
Pinus•edulis	Piñon Pine (Wyo., Cal., Mex.)		(VL-M)
Pinus•mugo	Mugo Pine (c. Eur. Balk.)		(M-H)
Platyclusus•orientalis *	Oriental Arborvitae (China, Korea)		(M+/-)
Taxus•baccata *	English Yew (Eur., n. Afr., w. Asia)		(H)

Taxus•brevifolia *	Anticancer Yew (pnw. USA)	(H)
Taxus•cuspidata *	Japanese Yew (Jap., Kor., Manchuria)	(H)
Taxus•x•media *	----- (hort. hybrid)	(H)
Thuja•occidentalis•var.	Western Arborvitae varieties (e. N. Am.)	(H)
Thuja•orientalis (now Platycladus•orientalis)		
Thuyopsis•dolabrata *	False Arborvitae (Japan)	(H)

7. EVERGREENS

(Non-coniferous)

[Revised April '03]

WATER NEEDS OF PLANTS

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HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation

Agave•parryi *	Parry's Agave (Cal., N.Mex., Mex.)	(VL-L)
Agave•utahensis *	Utah Agave (Cal., Nev. Utah, Ariz.)	(VL-L)
Allenrolfea•occidentalis *	Iodine Bush (sw. USA, deserts)	(L-VL)
Arctostaphylos•patula *	Greenleaf Manzanita (sw. USA)	(M+/-)
Artemisia•cana •(a.k.a. Seriphidium•canum)	Black Sage (w. USA)	(VL-M)
Artemisia•tridentata (a.k.a. S. tridentata)	Big Western Sage (intermtn. w. N. America)	(VL-M)
Aucuba•japonica *	Spotted Laurel (China, Taiwan, s. Japan)	(H)
Berberis•candidula *	Paleleaf Barberry (China)	(M+/-)
Berberis•julianae	Wintergreen Barberry (w. China)	(M+/-)
Berberis•triacanthophora *	= Berberis•X•wisleyensis	
Berberis•verruculosa *	Warty Barberry (w. China)	(M+/-)
Berberis•X•wisleyensis *	Threespike Barberry (hort. hybrid)	(M+/-)
Bruckenthalia•spiculifolia *	Spike Heath (se. Europe, Asia Minor)	(M+/-)
Buxus•microphylla•v.•koreana *	Korean Boxwood (Jap., Korea)	(M-H)
Buxus•sempervirens *	Common Boxwood (s. Eur., w. Asia, n. Afr.)	(M-H)
Ceanothus•fendleri	Fendler Ceanothus (Rocky Mtn. West)	(M+/-)
Ceanothus•integerrimus *	Deerbrush (sw. N. America)	(M+/-)
Ceanothus•sanguineus *	Oregon Tea (B.C. to Mont. to Calif.)	(M+/-)
Ceanothus•velutinus *	Snowbrush Ceanothus (Western Mtns., USA)	(M-H)
Cercocarpus•breviflorus	= Cercocarpus•ledifolius•v.•paucidentatus	
Cercocarpus•intricatus	= Cercocarpus•ledifolius•v.•intracatus	
Cercocarpus•ledifolius	Curleaf Mtn. Mahogany (Intermtn. USA)	(VL-L)
Cercocarpus•ledifolius•v.•intracatus	Littleleaf Mtn. Mahogany (Intermtn. sw. USA)	(VL-L)
Cercocarpus•ledifolius•v.•paucidentatus	Hairy Mtn. Mahogany (Ariz., N. Mex., Mex.)	(VL-L)
Chamaebatiaria•millefolium	Fernbush (Ore., e. Cal., Wyo., Ariz.)	(VL-L)
Cistus•laurifolius *	Laurel Rock Rose (sw. Europe)	(M+/-)
Coronilla•emerus *	Scorpion senna (c. & s. Europe)	(L-M)
Cotoneaster•congestus *	Pyrenees Cotoneaster (Himalaya Mts.)	(M+/-)
Cotoneaster•conspicuus *	Wintergreen Cotoneaster (c. China, se. Tibet)	(M+/-)
Cotoneaster•dammeri *	Bearberry cotoneaster (c. China)	(M-/-)
Cotoneaster•glaucophyllus *	Brightbead Cotoneaster (w. China)	(L-M)
Cotoneaster•microphyllus *	Littleleaf Cotoneaster (mtns. Afghan. to China)	(L-M)
Cowania•mexicana (syn. Purshia•mexicana)	Cliff Rose (intermtn. sw. USA & Mex.)	(VL-L)
Cytisus•scoparius *	Scotch Broom (Europe)	(M+/-)

Cytisus•x•praecox *	Warminster Broom (hort. hybrid)	(M+/-)
Daphne•cneorum	Daphne (mnts. c. & s. Europe)	(M+/-)
Daphne•retusa *	= Daphne•tangutica	
Daphne•tangutica *	----- (nw. & w. China)	(M+/-)
Daphne•x•burkwoodii	-----	(M+/-)
Daphne•x•burkwoodii•'Carol•Mackie'	Carol Mackie Daphne (hort. cultivar)	(M+/-)
Daphne•pontica *	----- (A. Minor, se. Eur., Cauc.)	(M+/-)
Elaeagnus•pungens *	----- (Jap., China)	(VL, M)
Ephedra•americana•v. andina *+	----- (Andes, Ecuador. to Patagonia)	(VL-M)
Ephedra•equisetina +	----- (c. Asia, w. china)	(VL)
Ephedra•gerardiana *+	----- (China, Himalaya)	(VL-L)
Ephedra•glaucula *	----- (c. Asia-Seravshan Mts.)	(VL-L)
Ephedra•minima *+	----- (China)	(VL-L)
Ephedra•minuta *	----- (c. Asia-Seravshan Mts.)	(VL-L)
Ephedra•nevadensis *+	Nevada Ephedra (Great Basin)	(VL-L)
Ephedra•regaliana *	----- (c. Asia-Pamir Mts.)	(VL-L)
Ephedra•torreyana +	Torrey Ephedra (intermtn. sw. USA)	(VL-L)
Ephedra•viridis +	Green Ephedra, Mormon Tea (Intermtn. sw. USA)	(VL-L)
Euonymus•fortunei•'Vegetus'	Euonymus (c. & w. China)	(M-H)
Euonymus•kiautschovicus•'Manhattan'	Manhattan Euonymus (hort. cultivar)	(M-H)
Fargesia•murielae, A. m., Sinarundinaria m. (see Thamnocalamus•spathaceus) *		
Fargesia•nitida., Arundinaria n., Sinarundinaria n., Thamnocalamus•nitida (see Sinarundinaria•nitida) *		
Fargesia•spathacea, Arundinaria s. (see Thamnocalamus•spathaceus) *		
Fuchsia•magellanica *	Fuchsia (Peru, Chile, Argentina)	(H)
Garrya•flavescens *	Yellow Silktassel (e. Cal., w. Az., s. Utah, s. Nev.)	(L)
Garrya•fremontii *	Fremont's Silktassel (w. Wa., Ore., Cal.)	(M+/-)
Garrya•wrightii *	Wright's Silktassel (sw. AZ., s. N. Mex., w. Tex.)	(L)
Gelsemium•sempervirens *	Carolina Yellow Jasmine (s. USA to c. Am.)	(H)
Hesperaloe•parviflora +	Hesperaloe (sw. Texas)	(VL-M)
Iberis•sempervirens	Evergreen Candytuft (Eurasia)	(M-H)
Ilex•aquifolium *	English Holly (Eur., n. Afr., w. Asia)	(H)
Ilex•cornuta *	Chinese Holly (China, Korea)	(H)
Ilex•crenata *	Japanese Holly (Sakhalin Is., Jap., Korea)	(H)
Ilex•opaca *	American Holly (e. USA)	(H)
Ilex•wilsonii *	Wilson's Holly (c., w., e. China, Taiwan)	(M-H)
Ilex•x•meserveae var.	Blue Prince & Blue Princess Hollies etc. (hort. hybrids)	(H)
Jasminum•fruticans *	----- (Medit. Asia Minor)	(L-M)
Kalmia•angustifolia *	Lambkill Kalmia (Hudson Bay to Georgia)	(H)
Kalmia•latifolia *	Mountain Laurel (e. N. Am.)	(H)
Lavandula•angustifolia var.	English Lavender varieties (Medit.)	(VL-M)
Lavandula•stoechas *	Spanish Lavender (c. Spain, ne. Portugal)	(VL-M)
Leucophyllum•minus *	Cenzia, Texas Ranger (Texas, New Mexico)	(L)
Lonicera•nitida *	Boxleaf Honeysuckle (China)	(H)
Lonicera•pileata *	Privet Honeysuckle (China)	(H)

Mahonia•aquifolium +	Oregon Hollygrape (Cascade mtns.)	(M-H)
Mahonia•fremontii +	Fremont Mahonia (sw. USA)	(VL-L)
Mahonia•haematocarpa +	Redberry Mahonia (sw. USA)	(VL-L)
Mahonia•repens +	Creeping Mahonia (Rocky Mtn. West)	(L-H)
Mahonia•trifoliata *+	Three-leaf Mahonia, Algerita (Ariz., N. Mex., Tex., Mex.)	(L)
x•Mahoberberis•miethkeana *	----- (Berberis•julianae•X•Mahonia•aquifolium)	(M+/-)
Nandina•domestica *	Heavenly Bamboo (India to e. China)	(M-H)
Nolina•microcarpa *	Bear Grass (sw. USA)	(L)
Opuntia•imbricata	Cholla (Colo., Kan., Tex., & Mex., to Ariz.)	(VL-L)
Opuntia•polycantha ,etc.	Prickly Pear Cactus species (w. USA, Can., Mex.)	(VL-L)
Osmanthus•americanus *	Devilwood (se. USA)	(H)
Osmanthus•decorus•Baki•Kasapligil' *	----- (Caucasus)	(H)
Osmanthus•heterophyllus *	Holly Osmanthus (Japan, Taiwan)	(H)
Osmanthus•x•burkwoodii *	----- (garden origin)	(H)
Paxistima•canbyi	Eastern Mtn. Lover (e. N. America)	(M+/-)
Paxistima•mysinities	= Paxistima•myrtifolia	
Paxistima•myrtifolia *	Western Mtn. Lover (B.C. Cal., Mont., Colo., N. Mex.)	(M-H)
Phillyrea•vilmoriniana *	= Osmanthus•decorus	
Photina•villosa *	Oriental Photina (Japan, Korea, China)	(H)
Photinia•serrulata *	Chinese Photinia (China)	(H)
Photinia•x•fraseri *	Photina (hort. hybrid)	(H)
Phyllostachys•aureosulcata *	Yellow-groove Bamboo (ne. China)	(H)
Phyllostachys•nigra *	Black Bamboo (e., c. China)	(H)
Phyllostachys•nuda *	Bamboo (China)	(H)
Pieris•japonica *	Japanese Pieris (Jap., Taiwan, e. China)	(H)
Prunus•laurocerasus•'Schipkaensis' *	Schipkanensis Cherry Laurel (Bulgaria)	(M-H)
Prunus•laurocerasus•'Zabeliana'*	Zabeliana Cherry Laurel (garden origin)	(M-H)
Purshia•mexicana	= Cowania•mexicana	
Purshia•tridentata	Antelope Bitterbrush (Rocky Mtn. West)	(L-M)
Pyracantha•coccinea	Pyracantha (Eurasia)	(M+/-)
Quercus•grisea *	Gray Oak (Tex., N. Mex., Mex., s. Colo.)	(M+/-)
Quercus•turbinella *	Turban Oak (Cal., & n. Baja. Ca. to w. Tex. & se. Colo.)	(M+/-)
Quercus•vacciniifolia *	Huckleberry Oak (w. US)	(M+/-)
Quercus•virginiana•v. fusiformis *	Texas Shrub Live Oak (Ok., Tex., Mex.)	(L-M)
Rosmarinus•officinalis•'Arp' *	Rosemary 'Arp' (a hardy cultivar from Arp, Texas)	(L-M)
Santolina•chamaecyparissus	Santolina (w. & c. Medit.)	(VL-M)
Santolina•rosmarinifolia	Green Santolina (Portugal to France)	(L-M)
Santolina•viridis	= Santolina•rosmarinifolia	
Sasa•kurilensis *	Kurile Islands Bamboo (Jap. Kor.)	(H)
Sasa•palmata *	Palmate Bamboo (n. Japan)	(H)
Shepherdia•rotundifolia **	Roundleaf Buffaloberry (Az., Utah)	(L-M)
Sinarundinaria•nitida *	Fountain Bamboo (c. China)	(H)
Thamnocalamus•spathaceus *	Umbrella Bamboo (c. China)	(H)
Viburnum•davidii *	David's Viburnum (w. China)	(M-H)

Viburnum•farreri *	Fragrant Viburnum (China)	(M-H)
Viburnum•rhytidophyllum *	Leatherleaf Viburnum (c. & w. China)	(M-H)
Viburnum•x•burkwoodii	Burkwood Viburnum (hort. hybrid)	(M-H)
Viburnum•x•rhytidophylloides•'Mohican'	Mohican Lantanaphyllum Viburnum (garden origin)	(M-H)
Yucca•baccata +	Banana Yucca (Colo. Plateau)	(VL-L)
Yucca•elata +	Soaptree Yucca (Az., N. Mex., Mex.)	(VL-L)
Yucca•glauca +	Front Range Yucca (w. Great Plains)	(VL-L)
Yucca•harrimaniae +	Harriman Yucca (Colo. Plateau)	(VL-L)

VINES

[Revised April '03]

WATER NEEDS OF PLANTS

The following chart shows how to group plants based on their water needs.
Reference Location: Denver. Numbers illustrate typical conditions.

* = Plants with potential, but requiring caution due to limited history in Rocky Mountain landscaping.

HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation
Akebia•quinata *	Five-leaf Akebia (Japan, Korea, China)		(M-H)
Akebia•trifoliata *	Three-leaf Akebia (c. China, Jap.)		(M-H)
Akebia•x•pentaphylla *	(A. quinata x A. trifoliata) (Japan)		(M-H)
Ampelopsis•aconitifolia *	Monkshood Vine (n. China, Mong.)		(M+/-)
Ampelopsis•brevipedunculata *	Porcelain Vine (China, Jap., Korea)		(M+/-)
Ampelopsis•delavayana *	----- (w. China)		(M+/-)
Ampelopsis•humulifolia *	----- (n. China)		(M+/-)
Ampelopsis•megalophylla *	----- (w. China)		(M+/-)
Aristolochia•durior *	= Aristolochia•macrophylla		
Aristolochia•macrophylla *	Dutchman's Pipe (Appalachian Mts.)		(M-H)
Campsis•grandiflora *	Chinese Trumpet Creeper (Jap., China)		(M-H)
Campsis•radicans +	Trumpet Creeper (e. USA)		(M-H)
Celastrus•loeseneri *	Loesener Bittersweet (c. China)		(M-H)
Celastrus•orbiculatus *	Oriental Bittersweet (ne. Asia)		(M-H)
Celastrus•scandens	Bittersweet (e. N. America)		(M-H)
Clematis (hort. varieties & hybrids)	----- (hort. hybrids & varieties)		(M-H)
Clematis•alpina *	----- (Eurasia)		(M-H)
Clematis•brevicaudata *	----- (Jap., China., w. Mong.)		(M+/-)
Clematis•chrysocoma *	----- (sw. China)		(M+/-)
Clematis•crispa *	Curly Clematis (se. USA)		(H)
Clematis•fargesii *	----- (China)		(M+/-)
Clematis•flammula	----- (s. Eur., to Turkestan)		(M+/-)
Clematis•grata *	----- (China, Himalaya)		(M+/-)
Clematis•ligusticifolia	Western Virgin's Bower (Man. to B.C., Mo., to Calif.)		(M+/-)
Clematis•macropetala *	----- (Siberia, n. China, Mongolia)		(M+/-)
Clematis•maximowicziana	= Clematis•terniflora		
Clematis•montana var. *	----- (Afghanistan. to sw. & c. China, Himalaya)		(M+/-)
Clematis•paniculata *	New Zealand Clematis (New Zealand)		(H)
Clematis•paniculata	= Clematis•terniflora		
Clematis•rehderiana *	Rehder's Clematis (w. China)		(M+/-)
Clematis•tangutica	Golden Lantern Clematis (Mongolia, nw. China)		(M+/-)
Clematis•terniflora	Sweet Autumn Clematis (Korea, China, Japan)		(M+/-)
Clematis•texensis *	Texas Clematis (sw. USA)		(M+/-)
Clematis•tibetana *	----- (Tibet, China, n. India)		(M+/-)
Clematis•vernayi (now C. tibetiana)			
Clematis•viorna *	Leather Flower (s. N. Am.)		(M-H)

Clematis•vitalba *	Traveller's Joy (Eur., Cauc., c. Asia, n. Afr.)	(M+/-)
Clematis•viticella *	----- (s. Europe, w. Asia)	(M+/-)
Dicentra•scandens *	----- (Nepal, to se. China)	(M+/-)
Euonymus•fortunei var.	Wintercreeper varieties (China)	(M-H)
Hedera•colchica *	Persian Ivy (Cauc., Turkey)	(M+/-)
Humulus•americanus	= Humulus•lupulus	
Humulus•lupulus	Hop Vine (n. Temperate regions worldwide)	(M+/-)
Hydrangea•anomala *	Climbing Hydrangea (Himalaya, China)	(H)
Hydrangea•anomala•ssp. •petiolaris*	= Hydrangea•petiolaris	
Hydrangea•petiolaris *	Climbing Hydrangea (Japan, China, Korea, Taiwan)	(H)
Jasminum•beesianum *	----- (China)	(M+/-)
Lathyrus•latifolius	Perennial Sweetpea (c. & e. Europe)	(M+/-)
Lonicera•alesuosmoides *	Evergreen Honeysuckle (w. China)	(M+/-)
Lonicera•caprifolium *	Italian Honeysuckle (Eur., s. Asia)	(M+/-)
Lonicera•flava *	Yellow Honeysuckle (se. USA)	(H)
Lonicera•henryi *	----- (w. China)	(M+/-)
Lonicera•japonica•'Halliana'	Hall's Honeysuckle (e. Asia)	(M-H)
Lonicera•periclymenum	Woodbine Honeysuckle (Eur., w. Asia)	(M+/-)
Lonicera•periclymenum•'Graham•Thomas'	Graham Thomas Honeysuckle (hort. cultivar)	(M+/-)
Lonicera•prolifera *	Grape Honeysuckle (c. USA)	(M+/-)
Lonicera•sempervirens	Scarlet Trumpet Honeysuckle (e. & s. USA)	(M-H)
Lonicera•sempervirens•'Alabama•Crimson'	-----	(M-H)
Lonicera•sempervirens•'Sulphurea'	-----	(M-H)
Lonicera•tragophylla *	Chinese Woodbine (w. China)	(M+/-)
Lonicera•x•brownii•'Dropmore•Scarlet' (L.s. x L. brownii)		(M+/-)
Lonicera•x•heckrottii	Heckrottii Honeysuckle (hort. hybrid)	(M-H)
Lycium•halimifolium *	Common Matrimony Vine (se. Europe, w. Asia)	(M+/-)
Mennispermum•canadense *	Moonseed Vine (e. N. America)	(M-H)
Parthenocissus•quinquefolia	Virginia Creeper (e. N. America to Rocky Mtns.)	(M-H)
Parthenocissus•tricuspidata	Boston Ivy (Japan, c. China)	(M-H)
Passiflora•incarnata *	Passion Flower (c. USA)	(H)
Polygonum•aubertii	Silver Lace Vine (w. China, Tibet, Tajikistan)	(M+/-)
Polygonum•baldschuanicum *	Buchara Fleeceflower (c. Asia, Tajikistan)	(M+/-)
Schisandra•chinensis *	Magnolia Vine (China)	(H)
Schizophragma•hydrangeoides *	Hydrangea Vine (Japan, Korea)	(M-H)
Smilax•rotundifolia *	Common Greenbriar (e. USA)	(H)
Tripterygium•regelii *	Regel's Tripterygium (Manchuria, Japan, Korea)	(M-H)
Vitis•amurensis *	Amur Grape (Manchuria)	(M+/-)
Vitis•arizonica	Arizona Grape (w. Tex.- Cal. & Mex.)	(M+/-)
Vitis•coignetiae *	Gloryvine (Japan, Korea)	(M+/-)
Vitis•riparia	Riverbank Grape (Nov. Sc. - Man., Tenn. & Tex. - Rocky Mts.)	(M-H)

Vitis•vinifera•varieties *	Eurasian Grape varieties (Eur., A. Minor, Cauc. Turkestan)	(M+/-)
Wisteria•floribunda *	Japanese Wisteria (Japan)	(M-H)
Wisteria•macrostachys *	Kentucky Wisteria (c. USA)	(H)
Wisteria•sinensis *	Chinese Wisteria (China)	(M-H)

GROUND COVERS

(Including turf & meadow grasses)

[Revised April '03]

WATER NEEDS OF PLANTS

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HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
Reference plant: Bluegrass turf (Always wet at surface)	Reference plant: Turf-type Tall Fescue (Half of Bluegrass turf)	Reference plant: Buffalograss turf (Like Denver without irrigation)	Reference plant: Too dry for any turf (drier than Denver)
18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation

Achillea•ageratifolia	Grecian Yarrow (Greece)	(L-M)
Achillea•serbica	Serbian Yarrow (Balkans)	(L-M)
Aegopodium•podagraria	Bishop's Weed (Europe)	(H)
Ajuga•reptans	Ajuga (Eur., Persia, Transcaucasia.)	(H)
Akebia•quinata *	Five-leaf Akebia (Jap., Korea, China)	(M-H)
Andropogon•scoparius	Little Blue Stem (syn. Schizachyrium•scoparium)	(L-M+/-)
Anemopsis•californica *	Yerba Mansa (sw. USA, Mex.)	(M-H)
Antennaria•parvifolia	Pussytoes (G. Plains, w. to B.C., Wash., Ariz.)	(M+/-)
Antennaria•rosea	Pussytoes (Alaska to Cal. & N. Mex.)	(M+/-)
Arabis•alpina *	Alpine Rock-cress (Europe, Siberia)	(M+/-)
Arctostaphylos•uva-ursi	Kinnikinnick (circumpolar)	(M+/-)
Arenaria•balearica *	Corsican Sandwort (Balearic Is. & Corsica)	(M+/-)
Aronia•melanocarpa	Chokeberry (e. N. Am.)	(M-H)
Asperula•odorata	= Galium•odoratum	
Astroturfoides•ultradeceptiverous	Astro Turf (Houston, Texas)	(L+/-M-)
Aurinaria•saxatilis	Basket-of-gold (c. & se. Europe)	(L-M)
Bouteloua•gracilis	Blue grama (N. America)	(L+/-)
Buchloë•dactyloides	Buffalograss (Great Plains)	(L)
Campanula•poscharskyana	Poscharsky Bellflower (Dalmatia)	(M-H)
Cerastium•tomentosum	Snow-in-summer (Eur. to w. Asia)	(L-M)
Ceratostigma•plumbaginoides	Plumbago (w. China)	(M+/-)
Convallaria•majalis	Lily-of-the-valley (Eurasia, e. N. America)	(M-H)
Cotoneaster•apiculatus *	Cranberry Cotoneaster (China)	(M+/-)
Cotoneaster•dammeri *	Creeping Cotoneaster (China)	(M+/-)
Cotoneaster•microphyllus *	Littleleaf Cotoneaster (Mts. Afghan., China)	(L-M)
Delosperma•cooperi	Hardy Pink Ice Plant (s. Africa)	(M+/-)
Delosperma•nubigenum	Hardy Yellow Ice Plant (s. Africa)	(M+/-)
Duchesnea•indica	Mock Strawberry (Korea, Jap., to India)	(M-H)
Epimedium•alpinum *	Alpine Epimedium (s. & c. Europe)	(M-H)
Epimedium•grandiflorum *	Longspur Epimedium (n. Japan, Korea, s. Manch.)	(M-H)
Euonymus•fortunei•'Coloratus'	Purpleleaf Wintercreeper (hort. cult.)	(M+/-)

Euonymus•obovatus *	Running Euonymus (e. USA)	(H)
Festuca•elator•cvs.	Turf-type Tall Fescue (Eur., Siberia)	(M+/-)
Galium•odoratum	Sweet Woodruff (Eurasia)	(M-H)
Genista•pilosa *	Dwarf Broom (Europe)	(M+/-)
Geranium•spp.	Hardy Geraniums	(M+/-)
Hosta•spp.	Host species (Jap., China, Korea)	(H)
Juniperus•spp. & cultivars +	Juniper species and cultivars	(L-M)
Lamium•maculatum	Spotted Deadnettle, Lamium (Eur., n. Afr., w. Asia)	(M-H)
Lathyrus•latifolius	Perennial Sweetpea (c. & e. Europe)	(M-H)
Lonicera•japonica•'Halliana'	Hall's Honeysuckle (e. Asia)	(M+/-)
Lonicera•sempervirens	Scarlet Trumpet Honeysuckle (e. & s. N. America)	(M-H)
Lonicera•x•heckrottii	Heckrottii Honeysuckle (hort. hybrid)	(M+/-)
Lysimachia•nummularia	Moneywort (Europe)	(H)
Mahonia•repens	Creeping Mahonia (Rocky Mtn. West)	(L-M-H)
Mazus•reptans *	----- (Himalayas)	(M-H)
Marrubium•rotundifolium	----- (Asia Minor)	(L-M)
Poa•pratensis	Kentucky Bluegrass (Eurasia, n. Africa)	(H)
Osteospermum•berberae	South African Daisy (S. Africa)	(M+/-)
Pachysandra•terminalis	Pachysandra (Japan, nc. China)	(M-H)
Parthenocissus•quinquefolia	Virginia Creeper (e. N. America to Rocky Mts.)	(M-H)
Phlox•stolonifera	Creeping Phlox (se. USA)	(M+/-)
Phlox•subulata	Moss Phlox (Penn. to Ga.)	(M+/-)
Polygonum•affine•'Border•Jewel'	Himalayan Border Jewel (Himalayas)	(M-H)
Polygonum•japonicum•var. •compactum	Fleece Flower (e. Asia)	(M-H)
Polygonum•reynoutria	= Polygonum•japonicum•var. •compactum	
Potentilla•nevadensis	----- (Spain)	(L-M)
Potentilla•verna•'Nana'	Creeping Potentilla (hort. cult.)	(M-H)
Rhus•trilobata	Three-leaf Sumac (w. N. Am.)	(L-M)
Saponaria•ocymoides	Saponaria (mtns. sw. & sc. Europe)	(M+/-)
Schizachyrium•scoparium	= Andropogon•scoparius	
Symphoricarpos•x•chenaultii•'Hancock'	Hancock Coralberry (hort. cult.)	(M+/-)
Teucrium•chamaedrys	Germander (c. & s. Europe, w. Asia)	(M+/-)
Thymus•spp.	Thyme species (Eurasia, N. Africa)	(L-M)
Waldsteinia•fragarioides	Barren Strawberry (e. USA)	(H)

Veronica•**liwanensis**
Veronica•**pectinata**
Vinca•**major**
Vinca•**minor**

Turkish Veronica (ne. Anatolia, Cauc.)
Woolly Veronica (e. Balkans, A. Minor)
----- (Italy, Balk.)
Vinca (Europe , w. Asia)

(M-H)
(L-M)
(M-H)
(H)

SELECTED PERENNIALS

[Revised April '03]

WATER NEEDS OF PLANTS

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HIGH WATER	MODERATE WATER	LOW WATER	VERY LOW WATER
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18-20 gals./S.F./season July: 5" -- 3 times per week	10 gals./S.F./season .75" -- once per week	0-3 gals./S.F./season .5" per 2 weeks, optional	No irrigation No irrigation

Achillea x 'Coronation Gold'	Coronation Gold Yarrow	(VL)
Achillea x 'Moonshine'	Moonshine Yarrow	(VL-L-M)
Aesclepias•tuberosa	Butterfly Weed	M-H
Agastache cana	Double Bubble Mint	(M+/-)
Alchemilla•vulgaris	Lady's Mantle	M-H
Anthemis•tinctoria	Golden Marguerite	M-H
Aquilegia•spp.	Columbines	H
Arum•italicum	Italian Arum	M-H
Aster porteri	Porter's Aster	(VL-L)
Aster•novae-angliae	New England Aster	M-H
Aster•x•frikartii	Frikart's Aster	M-H
Aurinia saxatilis	Basket-of-gold	(L-M)
Baptisia•australis	Baptisia	M-H
Berlandiera lyrata	Chocolate Flower	(VL-L)
Boltonia•asteroides	Boltonia	H
Borago•laxiflora	Borage	M-H
Callirhoe involucrata	Poppy Mallow	(L-M)
Centranthus ruber	Centranthus	(L-M-H)
Cerastium tomentosum	Snow-in-summer	(L-M)
Chrysanthemum•x•morifolium	Chrysanthemums	H
Chrysanthemum•x•superbum	Shasta Daisy	M-H
Convallaria•majalis	Lily-of-the-valley	H
Crocasmia•x•crocasmiflora	Crocasmia	H
Crocus spp. *	Crocus species	(L-M)
Datura meteloides	Sacred Datura	L-M
Delosperma cooperi	Hardy Pink Ice Plant	(M+/-)
Delphinium•x•elatum	Hybrid Delphiniums	H
Dianthus•spp.	Various Dianthus	L-M
Dicentra•eximia	Bleeding Heart	H
Dictamnus•albus	Gas Plant	L-M
Digitalis•purpurea	Common Foxglove	H
Echinacea•purpurea	Echinacea	M+/-
Echinops•ritro	Globe Thistle	H
Eremurus•spp.	Foxtail Lily	L-M
Eryngium•spp.	Sea Holly	L-M
Gaillardia aristata	Native Gaillardia	(L-M)
Geranium•spp.	Hardy Geraniums	M-H
Helianthemum•spp.	Sun-roses	M+/-
Helianthus maximiliani	Maximilian Sunflower	(M+/-)

Helianthus•spp.	Sunflowers	M+/-
Helleborus•spp.	Hellebores	M-H
Heimerocallis•spp.	Daylilies	M-H
Hosta•spp.	Hostas	H
Iberis•sempervirens	Candytuft	M+/-
Incarvillea•delavayii	Hardy Gloxinia	M+/-
Iris bucharica	Buchara Iris	(M+/-)
Iris germanica cvs..	Bearded Iris varieties	(L-M)
Kniphofia•spp.	Poker Plants	M-H
Lavandula spp.	Various Lavenders	(VL-M)
Liatris punctata	Dotted Gay Feather	(VL-L)
Liatris•punctata	Dryland Gayfeather	VL-L
Liatris•spicata	Wetland Gayfeather	H
Limonium•spp.	Sea Lavenders	L-M
Linum•perenne	Blue Flax	L-H
Lobelia•cardinalis	Cardinal Flower	H
Lobelia•syphilitica	Great Blue Lobelia	H
Lychnis•coronaria	Rose Campion	L-H
Malva•alcea	Hollyhocks	M+/-
Mirabilis multiflora	Native Four O'clock	(VL-L-M)
Monarda•spp.	Monardas	M-H
Narcissus spp.	Daffodils	(L-M)
Nepeta x faassenii	Faassen's Catnip	(L-M)
Paeonia•spp.	Peonies	M+/-
Papaver•orientale	Oriental Poppies	M-H
Penstemon pinifolius	Pineleaf Penstemon	(L-M)
Penstemon strictus	Rocky Mountain Penstemon	(L-M)
Perovskia atriplicifolia	Russian Sage	(VL-L)
Phlomis russeliana	Russel Phlomis	(M+/-)
Phlox subulata	Moss Phlox	(M+/-)
Phlox•paniculata	Garden Phlox	H
Platycodon•grandiflorus	Platycodon	H
Primula•spp.	Primroses	H
Ruta•graveolens	Rue	M+/-
Salvia azurea var. grandiflora	Pitcher Sage	(L-M)
Salvia officinalis	Cooking Sage	(L-M)
Salvia•spp.	Salvias	M+/-
Santolina chamaecyparissus	Santolina	(VL-M)
Saponaria ocymoides	Soapwort	(L-M-H)
Saponaria•ocymoides	Rock Soapwort	M+/-
Scabiosa ochroleuca	Yellow Pincushion Flower	(L-M)
Scabiosa•ochroleuca	Yellow Scabiosa	L-H
Secum•spp.	Sedums	M+/-
Silene laciniata	Mexican Campion	(M+/-)
Tanacetum niveum	Silver Tansy	(L-M)
Verbascum•chaxii	Nettle-leaf Mullein	M+/-
Zauschneria arizonica	Arizona Zauschneria	(L-M)
Zinnia grandiflora	Prairie Zinnia	(VL-L)

WaterWise Landscaping
*Best Practices**Section 4 – Natural Areas and Native Plants**A. Proactive Multi-Purpose Drainage Design***1. Introducing the Opportunity**

The Front Range prairie is frequently characterized as a rolling grassy landscape folded into meandering wooded drainages. The natural processes that developed this landscape can support the erosion control goals of the drainage design while providing enhanced recreational open space and habitat value. Proactively planned multipurpose drainage design can deliver these goals while saving installation costs and maintenance effort by working with the natural processes.

2. Natural Landscape and Generative Processes

Expanding Front Range developments are covering upland prairies with homes and roads, but the regional landscape can still be seen in the natural drainages. The fundamental character of these drainage areas is defined by the distribution of the thickets of woody species. Wild Plum, Chokecherry, Golden Currant, Snowberry, Sandbar willow and Three-leaf sumac are scattered along the native drainages among occasional towering Plains cottonwoods and the smaller Peach-leaved willows. These species generally occupy the sub-irrigated zones intermediate between the moist central channel areas and the drier upland grasslands.

The natural processes by which woody vegetation expands into upland drainages depend upon a connection to the larger riparian systems below. (Remember: nature abhors a vacuum.) A shallow, young grassy drainage will eventually develop into a deeper, wooded channel. In natural systems normal precipitation cycles coupled with disturbance (grazing, fire, or drought), eventually will lead to erosion and deposition along the grassy channels. In development areas the process is accelerated by the installation of roads or trails, pipelines, and drainage features. Any action that weakens a grassland root system can provide an opening for change.

Seeds of woody species use either wind or wildlife to relocate into disturbed areas in drainages. Native deciduous trees such as the Plain cottonwood and Peach-leaved willow and the smaller Sandbar willows release seeds on the spring winds. When a newly exposed moist soil deposit occurs within a few miles of a well-vegetated river, stream or irrigation ditch, a few seeds from these species will blow into to the site. Once a tree has taken root, it will attract birds as well as raccoons, fox, coyote, and skunks. All these animals follow the drainages in their search for food. They eat the plums, chokecherries, currants, snowberries, hawthorns, sumac or any other wild fruits. As they travel, they rest in and under small trees. Seeds are dropped in these locations as the animals move

on. Droppings from animals are concentrated near existing trees. The shade and leaf litter beneath the trees provide a moist protected site favorable for establishment.

3. Choices

Engineers design channels for expected run off from the new paved surfaces (roofs and pavement) and existing or proposed vegetation. When a natural channel contains a well-developed woody plant community, the plans may accommodate the existing vegetation conditions, allowing the woody vegetation to remain. Woody vegetation supports to goals of the drainage program by decreasing peak flows, slowing flow rates, protecting slopes channel edges from excess erosion.

New developments, lacking historic drainage channels, must make decisions related to the establishment of woody vegetation. In a short time, windblown woody species will find suitable sites in new drainages. Heavier seeded plants will eventually follow. If plans do not create channels with adequate flow capacity for the natural process of woody plant establishment, they will predetermine a maintenance program including expensive woody vegetation control. The erosion control and recreational benefits possible from woody vegetation will be diminished in the battle to prevent the inevitable. Channels can be sized to accommodate woody vegetation to improve slope stabilization. If this is done well, the maintenance program will be able to allow the natural process of woody vegetation development to occur. This requires an approach acknowledging and working with the natural processes typical of these riparian corridors.

4. Cost effectiveness

Proactive, multipurpose drainage design is more cost effective than rigorous maintenance designed to remove all woody vegetation. The woody vegetation serves the underlying purpose of slope stability and erosion control, becoming an ally to the drainage program, instead of a problem. Installation costs of woody vegetation become part of the erosion control program. Costly maintenance aimed at prevention or removal of woody vegetation is no longer necessary. Mowing requirements may mostly be eliminated as perennial vegetation becomes well established. Multipurpose corridors can become more diverse, improving in habitat and passive recreational value, overtime.

5. Lower water usage

In the interest of developing a more water efficient landscape, multipurpose designed drainages within a development can provide a cool, shady wooded retreat area without requiring installation and maintenance of a supporting irrigation system. Properly selected and placed native woody species can be largely selfsufficient once installed.

6. Urban Drainage and Flood Control Support

UDFCD encourages the natural channel concept in drainage design (V. 1, MD-3-9). "Open channel planning and design objectives are often best met by using natural-like vegetated channels". Guidance for planning and execution of this concept is included within the Drainage Criteria manual (V. 2.) revegetation section. Native seed mixtures for a variety of soil types as well as recommended uses and installation methods for trees and shrubs within drainage designs, are included.

7. Success

During the spring of the drought year of 2002, a number of drainage improvement projects were installed. Native woody plantings of trees and shrubs were successfully established in spite of limited or no irrigation. Marcy Gulch at Highlands Ranch, Niver Creek in Thornton, Cottonwood Creek in Greenwood Village, and Lilly Gulch in Littleton were successfully established in spite of many days of unseasonably hot dry conditions.

B. Native Seed Mixes

1. Colorado Native Seed Mix Summary

- a. Short Grass Prairie (grasses & wildflowers)
- b. Mixed Grass Prairie (grasses & wildflowers)
- c. Tall Grass Prairie (grasses & wildflowers)
- d. Moist or Wetland Soils (grasses & wildflowers)
- e. Sandy Loam Soils (grasses & wildflowers)
- f. Clay Loam Soils (grasses & wildflowers)
- g. Select Shrubs and Trees for natural areas

The complete Native Seed lists are provided on the following pages.



Shortgrass prairie species Easter daisy/*Townsendia grandiflorus*



Heavily grazed native shortgrass prairie

Table 1. Native shortgrass mixture for loam to clay loam dry upland sites. Some taller species included. Fall broadcast seed, rake or harrow to cover 1/10 to 1/3 inch, mulch recommended.

COMMON NAME	SCIENTIFIC NAME	VARIETY	MATURE HEIGHT	SEEDS/LB	PLS LBS/ACRE	SUGGESTIONS
GRASSES AND GRASS-LIKE PLANTS						
Buffalograss	<i>Buchloe dactyloides</i>	Sharp's	4-6"	56000	6.5	
Sideoats grama	<i>Bouteloua curtipendula</i>	Butte	18"	191000	3.0	
Blue grama	<i>Chondrosium gracile</i>	Hachita	6-8"	825000	8.0	
Western wheatgrass	<i>Pascopyrum smithii</i>	Barton	18"	110000	4.0	
Sand dropseed	<i>Sporobolus cryptandrus</i>	Native	18"	5,200,000	2.0	
TOTAL POUNDS/ACRE					23.5	
						1 acre=43560 square feet. Divide this per acre seed quantity by 20 to 40 for each to 1000 square feet to be seeded.
ADAPTED NATIVE WILDFLOWERS					OUNCES /ACRE	Double wildflower seeding rate for more color.
Purple prairieclover	<i>Dalea purpurea</i>		12"	210000	3.0	
Blanket flower	<i>Gaillardia aristata</i>		12-18"	132000	4.0	
Golden aster	<i>Heterotheca villosa</i>		6-8"	920000	2.0	
Gayfeather	<i>Liatris punctata</i>		12-18"	138000	4.0	
Flax	<i>Linum lewisii</i>		18"	293000	2.0	
Bluemist penstemon	<i>Penstemon virens</i>		8"	850000	3.0	
Sidebells penstemon	<i>Penstemon secundiflorus</i>		18"	610000	2.0	
Scarlet globemallow	<i>Sphaeralcea coccinea</i>		6-8"	500000	3.0	
Easter daisy	<i>Townsendia grandiflora</i>		6-8"	1200000	0.5	
TOTAL OUNCES/ACRE					23.5	
AV - Arkansas Valley Seed 303-665-6642, WNS - Western Native Seed 719-942-3935. Prepared by The Restoration Group, Inc. 5/03.						

Shortgrass Prairie

This vegetation type is typical of high plains areas with 10- 16 inches on annual precipitation. In native areas shallow soil depth, clay soil, low precipitation, alkaline conditions, heavy grazing or compaction all may contribute to a



Prairie coneflower/*Ratibida columnifera* in restored mixed grass prairie



Restored mixed grass prairie with wildflowers.

Table 2. Native mixed grass for sandy loam, loam, clay loam upland sites. Fall broadcast seed, rake or harrow to cover 1/10 to 1/3 inch, mulch recommended.

COMMON NAME	SCIENTIFIC NAME	VARIETY	MATURE HEIGHT	SEEDS/LB	PLS LBS/ACRE	SUGGESTIONS
GRASSES AND GRASS-LIKE PLANTS						
Sideoats Grama	<i>Bouteloua curtipendula</i>	Butte	18"	191000	4.8	
Buffalograss	<i>Buchloe dactyloides</i>	Texoca	4-6"	56000	5.0	
Blue Grama	<i>Chondrosium gracile</i>	Hachita	6-8"	825000	4.5	
Switchgrass	<i>Panicum virgatum</i>	Blackwell	24-36"	389000	2.0	
Western wheatgrass	<i>Pascopyrum smithii</i>	Ariba	18"	110000	3.0	
Little bluestem	<i>Schyzachrium scoparium</i>	Pastura	18-24"	260000	2.0	
Sand dropseed	<i>Sporobolus cryptandrus</i>	native	18"	5,200,000	0.5	
Green needlegrass	<i>Stipa viridula</i>	native	24"		1.5	
TOTAL POUNDS PLS/ACRE					23.3	
						1 acre=43560 square feet. Divide this per acre seed quantity by 20 to 40 for each to 1000 square feet to be seeded.
ADAPTED NATIVE WILDFLOWERS					OUNCES /ACRE	Double wildflower seeding rate for more color.
Smooth aster	<i>Aster laevis</i>				2.0	
Purple prairieclover	<i>Dalea purpurea</i>			210000	3.0	
Blanket flower	<i>Gaillardia aristata</i>			132000	6.0	
Golden aster	<i>Heterotheca villosa</i>				2.0	
Gayfeather	<i>Liatris punctata</i>			138000	4.0	
Flax	<i>Linum lewisii</i>			293000	2.0	
Penstemon	<i>Penstemon angustifolia</i>		24"	590000	2.0	
Prairie coneflower	<i>Ratibida columnifera</i>			1230000	2.0	
TOTAL OUNCES/ACRE					23.0	

*AV - Arkansas Valley Seed 303-665-6642, WNS - Western Native Seed 719-942-3935. Prepared by The Restoration Group, Inc. 5/03.

Mixed grass midgrass Prairie

Native areas with richer clay-loam to loamy soil, 14-18 inches of precipitation, and less grazing impact may exhibit the taller grasses typical of mixed grass prairie. Restored mixed grass prairie is possible on sites withg



Purple prairie clover/*Dalea purpurea* in restored tallgrass prairie. Grasses will later become 36" or more in height.

Table 3. Native tallgrass mixture for north and east facing sites, low areas. Fall broadcast seed, rake or harrow to cover 1/10 to 1/3 inch, mulch recommended.

COMMONNAME	SCIENTIFIC NAME	VARIETY	MATURE HEIGHT	SEEDS/LB	TOTAL LBS PLS/ACRE	SUGGESTIONS
GRASSES AND GRASS-LIKE PLANTS						
Big bluestem	<i>Andropogon gerardi</i>	Pawnee	3-4'	130,000	1.5	
Sideoats grama	<i>Bouteloua curtipendula</i>	Butte	18"	191000	2.8	
Blue grama	<i>Chondrosum gracile</i>	Hachita	6-8"	825000	3.5	
Switchgrass	<i>Panicum virgatum</i>	Blackwell	36"	389000	3.0	
Western wheatgrass	<i>Pascopyrum smithii</i>	Ariba	18"	110000	6.0	
Little bluestem	<i>Schizachyrium scoparium</i>	Pastura	24"	26000	3.4	
Yellow Indiangrass	<i>Sorghastrum avenaceum</i>	Holt	3-4'	170000	2.1	
TOTAL POUNDSPLS/ACRE					22.3	
						1 acre=43560 square feet. Divide this per acre seed quantity by 20 to 40 for each to 1000 square feet to be seeded.
ADAPTED NATIVE WILDFLOWERS					OUNCES /ACRE	Double wildflower seeding rate for more color.
Showy milkweed	<i>Asclepias speciosa</i>	native				
Blue aster	<i>Aster laevis</i>	native	18"		2.0	
Blanket flower	<i>Gaillardia aristata</i>	native	12-18"	132000	2.0	
Prairie coneflower	<i>Ratibida columnifera</i>	native	18-24"	1230000	4.0	
Purple prairieclover	<i>Dalea (Petalostemum) purpurea</i>	native	12"	210000	4.0	
Flax	<i>Linum lewisii</i>	native	18"	293000	3.0	
Penstemon	<i>Penstemon strictus</i>	native	24"	590000	4.0	
TOTAL OUNCES/ACRE					19.0	

*AV - Arkansas Valley Seed 303-665-6642, WNS - Western Native Seed 719-942-3935. Prepared by The Restoration Group, Inc. 5/03.

Tallgrass seed mixture

The taller grasses are limited to areas of higher precipitation 16-18 inches along the foothills and moist bottomlands streams. Rocky soils may contribute to greater moisture availability and the presence of remnant tallgrass



Restored wetland area in small drainage on school grounds with outdoor classroom/boardwalk.



Restored floodplain meadow in Commons Park near downtown Denver.

Table 4. Native wetland mix for drainages, swales or detention ponds (soil is moist between precipitation events). Application rate 1/2 - 1 pound PLS/1000 ft. sq. Broadcast, harrow or rake to cover with 1/10 - 1/3 inch soil.

COMMON NAME	SCIENTIFIC NAME	VARIETY	MATURE HEIGHT	SEEDS/LB	PLS LBS/ACRE	SUGGESTIONS
ADAPTED NATIVE GRASSES AND GRASS-LIKE PLANTS						
Woolly sedge	<i>Carex lanuginosa</i>	Native	18"	322,340	0.1	
Nebraska sedge	<i>Carex nebraskensis</i>	Native	12"	534,100	0.1	
Inland saltgrass	<i>Distichlis stricta</i>	Native	8"-10"	603,820	0.5	
Baltic rush	<i>Juncus balticus</i>	Native	12-18"	12,300,000	0.1	
Prairie cordgrass	<i>Spartina pectinata</i>	Native	24"+	183,000	9.5	
Switchgrass	<i>Panicum virgatum</i>	Blackwell	36"+	389,000	6.0	
Western wheatgrass	<i>Pascopyrum smithii</i>	Arriba	24"	110,000	8.0	
TOTAL POUNDS/ACRE					24.3	
					TOTAL OZ/ACRE	1 acre=43560 square feet. Divide this per acre seed quantity by 20 to 40 for each to 1000 square feet to be seeded.
ADAPTED NATIVE WILDFLOWERS						
Aster	<i>Aster laevis</i>	native	18"	1216000	3.0	
Showy milkweed	<i>Asclepias speciosa</i>	native	30"	58,112	2.0	
Swamp milkweed	<i>Asclepias incarnata</i>	native	36"	68,100	2.0	
Nuttall's sunflower	<i>Helianthus nuttallii</i>	native	6'+	250,000	1.0	
Wild Bergamot	<i>Monarda fistulosa</i>	native	24"	1,400,136	3.0	
TOTAL OUNCES/ACRE					11.0	
* AV - Arkansas Valley Seed 303-665-6642, WNS - Western Native Seed 719-942-3935. Prepared by The Restoration Group, Inc. 5/03.						

Moist wetland seed mixture

Damp soils along streams, near seeps, and in drainage swales supports wet meadow vegetation. Drainage channels, areas where water flows or pools after a storm are good sites for these moisture loving species. Using such speci



Scarlet globemallow/*Sphaeralcea coccinea* and Western wheatgrass/*Agropyron smithii* in mixed grass prairie remnant along Coal Creek in Erie.



Restored shortgrass prairie with Sidebells penstemon/*Penstemon secundiflorus*.

Table 5. Recommended native sand prairie for sandy to sandy loam soil. Fall broadcast seed, rake or harrow to cover 1/10 to 1/3 inch, mulch recommended.

COMMON NAME	SCIENTIFIC NAME	VARIETY	MATURE HEIGHT	SEEDS/LB	TOTAL PLS /ACRE	SUGGESTIONS
GRASSES AND GRASS-LIKE PLANTS						
Sand bluestem	<i>Andropogon hallii</i>	Garden	36"	113300	2.0	
Sideoats grama	<i>Bouteloua curtipendula</i>	Butte	18"	191000	3.2	
Prairie sandreed	<i>Calamovilfa longifolia</i>	Goshen	24-36"	273000	2.1	
Blue grama	<i>Chondrosium gracile</i>	Hachita	6-8"	825000	2.5	
Switchgrass	<i>Panicum virgatum</i>	Blackwell	36"	389000	2.0	
Western wheatgrass	<i>Pascopyrum smithii</i>	Arriba	18-24"	110000	6.5	
Little bluestem	<i>Schizachyrium scoparium</i>	Pastura	24"	26000	3.0	
Sand dropseed	<i>Sporobolus cryptandrus</i>		18"	1758000	0.5	
TOTAL POUNDS/ACRE					21.8	
						1 acre = 43560 square feet. Divide this per acre seed quantity by 20 to 40 for each 1000 square feet to be seeded.
ADAPTED NATIVE WILDFLOWERS					TOTAL OZ/ACRE	Double wildflower seeding rate for more color.
Blue aster	<i>Aster laevis</i>		18"		2.0	
Blanket flower	<i>Gaillardia aristata</i>		12-18"	132000	6.0	
Prairie coneflower	<i>Ratibida columnifera</i>		24"	1230000	3.0	
Purple prairieclover	<i>Dalea (Petalostemum) purpurea</i>		12"	210000	3.0	
Flax	<i>Linum lewisii</i>		18"	293000	4.0	
Penstemon	<i>Penstemon strictus</i>		18-24"	592000	4.0	
TOTAL OUNCES/ACRE					22.0	
* AV - Arkansas Valley Seed 303-665-6642, WNS - Western Native Seed 719-942-3935. Prepared by The Restoration Group, Inc. 5/03.						

Sandy loam seed mixture

Isolated areas of sandy soil are better suited to these deep rooted species. Some native shrubs such as Yucca/Yucca glauca, Rabbitbrush/Chrysothamnus nauseosus, and Sand sagebrush/Artemisia filifolia are well suited to these areas



Needle-and-threadgrass/*Stipa comata* with Blanketflower/*Gaillardia aristata* in mixedgrass prairie.

Table 6. Native seed mixture for use on clay loam soils. Application rate on clean seed bed 1/2-1 pound PLS/1000 sq. ft. Fall broadcast seed, rake or harrow to cover 1/10 to 1/3 inch, mulch recommended.

COMMON NAME	SCIENTIFIC NAME	VARIETY	MATURE HEIGHT	SEEDS/LB	PLS LBS/ACRE	SUGGESTIONS
GRASSES AND GRASS-LIKE PLANTS						
Buffalograss	<i>Buchloe dactyloides</i>	Sharp's	6"	56000	7.6	
Sideoats grama	<i>Bouteloua curtipendula</i>	Butte	18"	191000	3.5	
Blue grama	<i>Chondrosium gracile</i>	Hachita	6-8"	825000	6.0	
Western wheatgrass	<i>Pascopyrum smithii</i>	Barton	18"	110000	4.8	
TOTAL POUNDS/ACRE					21.9	
						1 acre=43560 square feet. Divide this per acre seed quantity by 20 to 40 for each to 1000 square feet to be seeded.
ADAPTED NATIVE WILDFLOWERS					OZ/ACRE	Double wildflower seeding rate for more color.
Purple prairieclover	<i>Dalea purpurea</i>		12"	210000	3.0	
Blanket flower	<i>Gaillardia aristata</i>		12-18"	132000	3.0	
Gayfeather	<i>Liatris punctata</i>		12-18"	138000	3.0	
Flax	<i>Linum lewisii</i>		18"	293000	4.0	
Prairie coneflower	<i>Ratibida columnifera</i>		18-24"		3.0	
Scarlet globemallow	<i>Sphaeralcea coccinea</i>		6"		4.0	
TOTAL OUNCES/ACRE					20.0	
* AV - Arkansas Valley Seed 303-665-6642, WNS - Western Native Seed 719-942-3935. Prepared by The Restoration Group, Inc. 5/03.						
Clay loam seed mixture						
The shortgrass prairie species are well adapted to clay loam soils.						



Native woody shrubs and trees stabilize stream channel in Front range open space area. Shade, habitat, and passive recreational value area also enhanced. No irrigation water is required for this amenity.

Table 7. Native shrub and tree species adapted to the Front Range high plains area. Little or no water is required for these species if properly located on landscape. Useful for erosion control, shade, and habitat improvement in drainages.

COMMON NAME	SCIENTIFIC NAME	VARIETY	MATURE HEIGHT	SEEDS/LB	PLS LBS/ACRE	LOCATION
NATIVE WOODY VEGETATION						
Rabbitbrush	<i>Chrysothamnus nauseosus</i>	Native	2-4'			Upland areas, establishment watering. Use smaller plants or seed for best results.
Plains Cottonwood	<i>Populus sargentii</i>	Native	45-60'			Naturally subirrigated lowlands, moist areas, open space drainages. Plant rootball 2-4' into saturated soil, monthly deep watering if planted in upland areas.
Chokecherry	<i>Padus virginiana</i>	Native	10-12'			Naturally subirrigated lowlands, shady sites, northfacing slopes, open space drainages. Deep water once a month in upland areas.
Wild plum	<i>Prunus americana</i>	Native	6-8'			Naturally subirrigated lowlands, shady sites, northfacing slopes, open space drainages. Deep water once a month in upland areas.
Golden current	<i>Ribes aureum</i>	Native	3-4'			Naturally subirrigated lowlands, shady sites, northfacing slopes, open space drainages. Deep water once a month in upland areas.
Three-leaf sumac	<i>Rhus trilobata</i>	Native	4-8'			Upland areas, water monthly 1 year to establish
Peachleaf willow	<i>Salix amygdaloides</i>	Native	15-35'			Naturally subirrigated lowlands, moist areas, open space drainages.
Sandbar willow	<i>Salix exigua</i>	Native	5-6'			Naturally subirrigated lowlands, moist areas, open space drainages.
Snowberry	<i>Symphoricarpos occidentalis</i>	Native	2'			Naturally subirrigated lowlands, shady sites, northfacing slopes, open space drainages.
Yucca	<i>Yucca glauca</i>	Native	2'			Upland areas, water 1 year to establish
TOTAL POUNDS PLS/ACRE					0	
WaterWise Landscaping						
* AV - Arkansas Valley Seed 303-665-6642, WNS - Western Native Seed 719-942-3935. Prepared by The Restoration Group, Inc. 5/03.						

Woody plants

Most native woody vegetation are adapted to drainages and sites with elevated moisture, such as springs or north-facing slopes. These species provide critical habitat for wildlife, shade and diversity, and erosion control in drainage areas.

Best Practices

Section 4 – Natural Areas and Native Plants

C. Plants to Avoid – The 2003 State Noxious Weed List

The following noxious weed listings have been excerpted from the Rules and Regulations Pertaining to the Administration and Enforcement of the Colorado Weed Management Act, as of May 2003. The full text and current listing are available at <www.ag.state.co.us/DPI/weeds/weed.html>.

"Noxious weed" means an alien plant or parts of an alien plant that have been designated by rule as being noxious or has been declared a noxious weed by a local advisory board, and meets one or more of the following criteria:

- (a) Aggressively invades or is detrimental to economic crops or native plant communities;
- (b) Is poisonous to livestock;
- (c) Is a carrier of detrimental insects, diseases, or parasites;
- (d) The direct or indirect effect of the presence of this plant is detrimental to the environmentally sound management of natural or agricultural ecosystems.

The following weed species, listed in alphabetical order, are identified as the State Noxious Weeds. They have been identified by individual counties as problem weeds in the county's area or have been recommended for management through public testimony. These weed species should be considered by each local advisory board and local governing body in the development, adoption and enforcement of their noxious weed list and noxious weed management plan. The State Noxious Weeds are:

Absinth wormwood (<i>Artemisia absinthium</i>)	Meadow knapweed (<i>Centaurea pratensis</i>)
African rue (<i>Peganum harmala</i>)	Mediterranean sage (<i>Salvia aethiopis</i>)
Black henbane (<i>Hyoscyamus niger</i>)	Medusahead rye (<i>Taeniatherum caput-medusae</i>)
Black nightshade (<i>Solanum nigrum</i>)	Moth mullein (<i>Verbascum blattaria</i>)
Blue mustard (<i>Chorispora tenella</i>)	Musk thistle (<i>Carduus nutans</i>)
Bouncingbet (<i>Saponaria officinalis</i>)	Myrtle spurge (<i>Euphorbia myrsinites</i>)
Bull thistle (<i>Cirsium vulgare</i>)	Orange hawkweed (<i>Hieracium aurantiacum</i>)
Camelthorn (<i>Alhagi pseudalhagi</i>)	Oxeye daisy (<i>Chrysanthemum leucanthemum</i>)
Canada thistle (<i>Cirsium arvense</i>)	Perennial pepperweed (<i>Lepidium latifolium</i>)
Chicory (<i>Cichorium intybus</i>)	Perennial sowthistle (<i>Sonchus arvensis</i>)
Chinese clematis (<i>Clematis orientalis</i>)	Plumeless thistle (<i>Carduus acanthoides</i>)
Coast tarweed (<i>Madia sativa</i>)	Poison hemlock (<i>Conium maculatum</i>)
Common burdock (<i>Arctium minus</i>)	Puncturevine (<i>Tribulus terrestris</i>)
Common crupina (<i>Crupina vulgaris</i>)	Purple loosestrife (<i>Lythrum salicaria</i>)
Common groundsel (<i>Senecio vulgaris</i>)	Quackgrass (<i>Elytrigia repens</i>)
Common mullein (<i>Verbascum thapsus</i>)	Redstem filaree (<i>Erodium cicutarium</i>)
Common St. Johnswort (<i>Hypericum perforatum</i>)	Rush skeletonweed (<i>Chondrilla juncea</i>)
Common tansy (<i>Tanacetum vulgare</i>)	Russian knapweed (<i>Centaurea repens</i>)
Common teasel (<i>Dipsacus fullonum</i>)	Russian-olive (<i>Elaeagnus angustifolia</i>)
Cypress spurge (<i>Euphorbia cyparissias</i>)	Russian thistle (<i>Salsola collina</i> and <i>S. iberica</i>)
Dalmatian toadflax, broad-leaved (<i>Linaria dalmatica</i>)	Saltcedar (<i>Tamarix parviflora</i> and <i>T. ramosissima</i>)
Dalmation toadflax, narrow-leaved (<i>L. genistifolia</i>)	Scentless chamomile (<i>Anthemis arvensis</i>)
Dame's rocket (<i>Hesperis matronalis</i>)	Scotch thistle (<i>Onopordum acanthium</i> and <i>O. tauricum</i>)
Diffuse knapweed (<i>Centaurea diffusa</i>)	Sericea lespedeza (<i>Lespedeza cuneata</i>)
Downy brome (<i>Bromus tectorum</i>)	Shepherdspurse (<i>Capsella bursa-pastoris</i>)
Dyer's woad (<i>Isatis tinctoria</i>)	Spotted knapweed (<i>Centaurea maculosa</i>)
Eurasian watermilfoil (<i>Myriophyllum spicatum</i>)	Spurred anoda (<i>Anoda cristata</i>)
Field bindweed (<i>Convolvulus arvensis</i>)	Squarrose knapweed (<i>Centaurea virgata</i>)
Flixweed (<i>Descurainia sophia</i>)	Sulfur cinquefoil (<i>Potentilla recta</i>)
Giant salvinia (<i>Salvinia molesta</i>)	Swainsonpea (<i>Sphaerophysa salsula</i>)
Green foxtail (<i>Setaria viridis</i>)	Tansy ragwort (<i>Senecio jacobaea</i>)
Hairy nightshade (<i>Solanum sarrachoides</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)

Halogeton (*Halogeton glomeratus*)
 Hoary cress (*Cardaria draba*)
 Houndstongue (*Cynoglossum officinale*)
 Hydrilla (*Hydrilla hydrilla*)
 Johnsongrass (*Sorghum halepense*)
 Jointed goatgrass (*Aegilops cylindrica*)
 Kochia (*Kochia scoparia*)
 Leafy spurge (*Euphorbia esula*)
 Mayweed chamomile (*Anthemis cotula*)

Venice mallow (*Hibiscus trionum*)
 Wild caraway (*Carum carvi*)
 Wild mustard (*Brassica kaber*)
 Wild oats (*Avena fatua*)
 Wild proso millet (*Panicum miliaceum*)
 Yellow foxtail (*Setaria glauca*)
 Yellow nutsedge (*Cyperus esculentus*)
 Yellow starthistle (*Centaurea solstitialis*)
 Yellow toadflax (*Linaria vulgaris*)

The following weed species are recognized as the top ten prioritized weed species for the State of Colorado. After analysis of a statewide survey of counties, these species are acknowledged to be the most widespread and to cause the greatest economic impact in the State of Colorado. These species shall be considered by each local advisory board and local governing body in the development, adoption and enforcement of their noxious weed list and noxious weed management plan. They are listed in alphabetical order:

Canada thistle (*Cirsium arvense*)
 Dalmation toadflax (*Linaria dalmatica* and *L. genistifolia*)
 Diffuse knapweed (*Centaurea diffusa*)
 Field bindweed (*Convolvulus arvensis*)
 Hoary cress (*Cardaria draba*)

Houndstongue (*Cynoglossum officinale*)
 Leafy spurge (*Euphorbia esula*)
 Musk thistle (*Carduus nutans*)
 Russian knapweed (*Centaurea repens*)
 Yellow toadflax (*Linaria vulgaris*)

The following weed species may not be present or are not yet widespread or causing great economic impact within the State of Colorado. However, counties and local advisory boards are encouraged to contain and eradicate these species before they proliferate and significantly impact the economic and environmental values of the lands of the State. They are listed in alphabetical order:

Absinth wormwood (*Artemisia absinthium*)
 African rue (*Peganum harmala*)
 Bouncingbet (*Saponaria officinalis*)
 Camelthorn (*Alhagi pseudalhagi*)
 Coast tarweed (*Madia sativa*)
 Common crupina (*Crupina vulgaris*)
 Common teasel (*Dipsacus fullonum*)
 Cypress spurge (*Euphorbia cyparissias*)
 Dyer's woad (*Isatis tinctoria*)
 Eurasian watermilfoil (*Myriophyllum spicatum*)
 Giant salvinia (*Salvinia molesta*)
 Hydrilla (*Hydrilla hydrilla*)

Meadow knapweed (*Centaurea pratensis*)
 Moth mullein (*Verbascum blattaria*)
 Myrtle spurge (*Euphorbia myrsinites*)
 Orange hawkweed (*Hieracium aurantiacum*)
 Rush skeletonweed (*Chondrilla juncea*)
 Sericea lespedeza (*Lespedeza cuneata*)
 Spurred anoda (*Anoda cristata*)
 Squarrose knapweed (*Centaurea virgata*)
 Sulfur cinquefoil (*Potentilla recta*)
 Tansy ragwort (*Senecio jacobaea*)
 Venice mallow (*Hibiscus trionum*)
 Yellow starthistle (*Centaurea solstitialis*)

WaterWise Landscaping Best Practices

Section 5 – Understanding Soils and Soil Preparation

A. Introduction to Soils (See Native Plant Revegetation Guide available at: http://parks.state.co.us/cnap/revegetation-guide/reveg_index.html)

Prairie soils have developed over thousands of years. Native topsoil is a living material containing soil microorganisms, seeds, plant roots, and invertebrate animal in a matrix of minerals (derived from rocks) and dead organic matter (developed from the breakdown of dead plants and animals). Areas with adequate topsoil are better able to develop and support healthy vegetation. Native drought tolerant vegetation may be adapted to a broad or narrow range of soil types. Successful native and drought tolerant landscapes should consider soil properties when designing planting areas. Soil properties include texture, chemistry, and structure. Soil pH, salinity, and percent organic matter may be more critical to the establishment of native and drought tolerant vegetation than soil macronutrient levels (nitrogen, phosphorus, and potassium). In order to better plan for specific soils, consult the reference above.

Topsoil may be recognized in general by its darker color (very dark to deeper brownish earth tones). The distinct transition to brighter earth tones may mark the boundary with subsoil. Recent precipitation may color surface soils darker and should not be mistaken for topsoil. In general topsoil may be 6 to 12 inches deep, deeper in drainages and shallower on slopes and hilltops. Old agricultural fields may have less distinct boundaries due to years of mixing of upper soils and accelerated erosional loss. Pits may be dug to identify topsoil depths prior to removal

B. Salvage of Soils

Topsoil is a living material and must be handled carefully to preserve its quality. Planned developments are frequently re-graded. Topsoil should be salvaged from all areas and stockpiled prior to grading. Topsoil under roads and staging areas should also be removed and stock piled. All salvaged topsoil should be reapplied to the portions of the development site to be revegetated. Salvage topsoil in drainages before erosion of denuded upland areas can contaminate them.

Topsoil is best if it can be removed and hauled directly to the placement site. If storage is necessary it should be for as short a time as possible. The topsoil should be placed in a low mound, in a weed free area, with side slopes of 7:1 or less. A ditch and berm structure around the pile will help reduce loss to erosion. If the pile is to remain for more than four weeks, it should be seeded with a sterile hybrid wheatgrass such as “Regreen”. The depth of the pile should be no greater than 2-3 feet to minimize loss of living microbial components. In general it is best to move topsoil when it is moist. Avoid moving wet soils (may harden to brick-like consistency) or overly dry soils. Dormant hauled soils preserve residual native seed and propagules.

C. Topsoil Sources

If topsoil is to be imported to a site a soil sample or recent soil test should be obtained from the supplier. If possible the source site should be visited to check for weed contamination. Soil sources should be free of noxious weed species. If a prepared soil is to be used, the organic content should only be 2 percent for native seeding areas. (Conventional lawns and higher water usage areas may utilize higher organic matter.)

D. Topsoil Testing

Imported topsoil should be a sandy loam or loam soil as defined by the USDA Soil Conservation Service soil Classification system, as follows:

<u>Textural Class</u>	<u>% Total Weight</u>	<u>Average %</u>
Sand (0.05-2.0 mm dia. Range)	45 to 75	60
Silt (0.002-0.05 mm dia. range)	15 to 35	25
Clay (less than 0.002 mm dia. range)	5 to 25	15

Topsoil should be free of stones over 1" in diameter (lawns and gardens) or over 4" (native seeded areas). Topsoil should be free of debris and excessive plant litter.

Topsoil should have a pH of 6-7.5 and salinity less than 4 mmhos/cm.

Soil Testing is available through the **Colorado State University Extension Service:**

Contact Information: CSU Soil Testing Lab, Ft. Collins, Colorado
 Phone: 970-491-5061
 Fax: 970-491-2930
 Web: www.colostate.edu/Depts/SoilCrop/soillab.html
 Cost: Routine Analysis = \$18.00 (as of 6/03)
 Procedure: Application & Instruction Forms follow

E. Soil Amendments

It is best to plan native and drought tolerant vegetation around the existing soil conditions. If extreme soil conditions exist, some amendments may improve the soil conditions:

1. pH

If the pH is very high it may be possible to adjust by adding aluminum sulfate. Soil in the Front Range tends to have a high pH and thus, does not generally require the addition of lime, which would further elevate the pH value.

2. Texture

Soil texture effects water availability within soils. Very sandy soils do not retain water well. Very clayey soils do not allow water to penetrate or drain easily. Organic matter may improve both of these extreme soils. Native or to low water usage landscapes generally no more than 2 percent organic matter. Generally, if sandy or

clay soils are amended, 2 cubic yards of composted organic matter/1000 square feet is adequate. To improve deep root penetration in a heavy clay or sandy subsoil (under all water usage levels of landscape) apply 2 cubic yards of compost prior to re-application of topsoil. All compost should be deeply ripped into the soil at least 12 inches. This helps with root penetration into the deeper layers of the soil and makes all landscape types more drought tolerant. Avoid over-working the soil to preserve the soil structure.

3. Organic Amendment

Organic amendments should be composted. Compost may be a mixture of manures (not from stock yards, which may be high in salts), yard wastes (ground grass clippings, leaves and branches), organic byproducts such as brewery wastes, and sewage sludge (should not be used alone due to a high clay content.) Prepared topsoil companies maintain sanitary controlled compost production and are a good source of organic amendments.

4. Nutrient Amendment

Nutrient amendments may not be required for native vegetation. Macro nutrient (N,P,K) levels are low in native prairies. Addition of nutrients to native and drought tolerant planting areas may encourage weeds and damage root systems. If topsoil is very poor or lacking, a slow release organic amendment such as Biosol may be added at a rate of 800 to 1200 pounds per acre to improve plant growth.

SUGGESTED INSTRUCTIONS FOR SUBMITTING SOIL SAMPLES

Use the following steps to submit soil samples:

1. Obtain a spade, trowel, soil tube, or soil auger free of rust and soil.
2. Dig 5-10 samples (depending on the size of the area) from the soil depth where your plants will be rooting. The samples should represent a uniform area consisting of land that is similar in slope, texture, drainage, or other characteristics that make the soil the same. A front and back yard would most likely be very similar to each other, however a garden area may be different from a turf grass area.
3. Place all of the samples into a plastic container and mix well to get your final sample for submittal to the lab. If possible, air dry the sample by spreading it out on paper towels.
4. Remove about 1 1/2 - 2 pints of soil from the container and place it in a plastic bag or soil sample bag.
5. Seal the bag and label the sample with name, address and location of the sample.
6. Complete this soil sample information form as much as possible and include it with the soil sample.
7. Mail the sample to the lab using the following address:

**Soil, Water and Plant Testing Laboratory
Colorado State University
Room A 319 NESB
Fort Collins, CO 80523-1120**

8. Be sure to keep samples cool before mailing. If samples heat up; the nitrogen readings can change dramatically. Keeping the samples in the shade will prevent excessive heating.
9. **DO NOT PREPAY**, you will be billed for the analysis.
10. The lab **DOES NOT** do herbicide or pesticide analysis.
11. If you have additional questions please contact the lab at: (970) 491-5061 or your local county Cooperative Extension agent.

SOIL TESTS AVAILABLE	
TEST	COMMENTS
Routine- pH, soluble salts, organic matter, nitrate-nitrogen, phosphorus, potassium, zinc, iron, lime (estimate), texture, copper and manganese.	Basic evaluation for characterizing the soil fertility status for growing crops. a fertilizer recommendation is given. Normally this test is sufficient unless a special problem is suspected.
Subsoil Nitrate	Evaluation of nitrate supply below soil surface. Fertilizer nitrogen recommendation based on routine soil test of surface soil is adjusted if subsoil nitrate is unusually high.
Subsoil Salinity	It is important to determine the salt content of subsoil for crop management.
Sodium Evaluation - sodium adsorption ratio (ratio of sodium to calcium and magnesium), gypsum, and % lime.	Some Colorado soils contain excess sodium. This test determines whether or not chemical amendments such as gypsum or sulfur will be effective and the amounts of these materials needed.
Routine plus Sodium Evaluation	See above explanations. A recommendation for fertilizer and/or amendments for sodium reclamation is given.
Boron, Sulfate and Molybdenum	Colorado soils usually have sufficient quantities of these nutrients. However, in some soils near mine sites, boron or molybdenum may be found in toxic quantities.

Form from the CSU Soil-Water-Plant Laboratory website
<www.colostate.edu/Depts/SoilCrop/soillab.html>

SOIL SAMPLE INFORMATION FOR HORTICULTURAL APPLICATIONS - PLEASE PRINT IN
LANDSCAPE MODE:

See the reverse side for sampling information

DATE: _____
 FULL NAME: _____
 SSN: _____
 ADDRESS: _____
 CITY: _____ STATE: _____
 ZIP CODE: _____
 PHONE: _____ FAX: _____
 COUNTY: _____ SAMPLE ID: _____

The following information will help us give you a written
 explanation of the laboratory results:

PLEASE CIRCLE ALL THAT APPLY.

1. The sample is from:

- A. Lawn E. Golf course
 B. Vegetable garden F. Container plantings
 C. Flower bed G. Reclamation site
 D. Greenhouse H. Other (please specify) _____

2. What do you plan to grow at the site or what is currently growing at the site?

- A. Vegetables B. Flowers C. Turfgrass (How old is the lawn?) _____ D. Trees E. Other _____

If you are growing turf please answer the following:

Is this site to be _____ Seeded _____ Sodded?

Is it an existing lawn? _____

If the lawn is established was it:

Seeded _____ Sodded _____

3. Will this site be

irrigated/watered?

Yes _____ or No _____

4. If yes which method?

- A. Sprinkler C. Drip
 B. Flood D. Other please specify _____

5. If sprinkler is used is it:

- A. Automatic C. Hose end
 B. In ground D. Other _____

6. About how much water do you apply each time you irrigate/water?

- A. Less than 1 inch. B. 1-3 inches C. 4-6 inches D. More than 6 inches

7. How often do you irrigate/water? Daily _____ Once per week _____ Twice per week _____ Other _____

8. If possible, indicate the types of previous crops or plants that grew at this site. _____

9. What have you added or plan to add to the soil? _____

10. Is there a specific problem with this site? Yes _____ No _____

If yes, please describe the problem, what caused the problem and why you think it was the cause (use a separate sheet if necessary).

11. If you wish to have a fertilizer recommendation based on organic fertilizers please answer the following questions.

What is the type of material that will be used for organic fertilizer?

- A. Composted manure B. Composted sludge C. Other _____

Do you know the nutrient levels in the organic fertilizer? Yes _____ No _____

If so please supply the following information for the organic fertilizer.

% nitrogen	% phosphorus	% potassium	pH	Salts (mmhos/cm)

Additional Comments: _____

By accepting service or goods, I agree to submit payment in full to Colorado State University upon receipt of invoice
 or University Billing Statement. Late payment charges of 1.5% per month and other penalties specified may be
 assessed for late payment.

Please call lab for prices.

revised 10-11-2001

Form from the CSU Soil-Water-Plant Laboratory website
 <www.colostate.edu/Depts/SoilCrop/soillab.html>

WaterWise Landscaping

Best Practices**Section 6 – Irrigation Design Techniques and Equipment**

The following information builds upon some of the Guidelines described above in Section 2, Principle #5.

A. Consider plant water requirements in irrigation design schemes

1. Each valve should irrigate a landscape with similar site, slope and soil conditions and plant material with similar watering needs.
2. Soil types, infiltration rate & slopes should be considered in order to avoid runoff, & overspray, where water flows onto adjacent property, non-irrigated areas, walks, roadways, or structures. Proper irrigation equipment, schedules, and repeat cycles should be used to minimizing runoff.
3. Special attention should be given to avoid runoff from slopes, and to avoid overspray in planting areas with a width less than ten feet, like medians.
4. Turf and non-turf areas should be irrigated on separate valves.
5. Drip emitters and sprinklers should be place on separate valves.
6. Bubblers for trees should be placed on a separate valve. Bubbler selected should not exceed 1.5 gallons per minute (gpm) for each device.
7. Hand watering may be considered for Low and Very Low hydrozones.

B. Employ hydraulic principles when designing the irrigation system.

1. The irrigation system should be designed to provide peak season irrigation within a six night, six hour per night watering period.
2. The tap size should be based on the water demand of the site and will take into consideration the areas of each plant type (i.e., turf, native seed, perennials and annuals and shrubs), the evapotranspiration for the site, the water demand of each plant type at peak season, and the water window.
3. The maximum flow rate required for the site should be based on the tap size:

¾" meter	15 gallons per minute
1" meter	25 gpm
1.5" meter	50 gpm
2" meter	80 gpm
4. The mainline system should be designed such that velocities within the mainline piping do not exceed five feet per second.
5. A reduced pressure backflow preventer should be used on all systems. Where the irrigation point of connection is from the domestic water service, the irrigation tap and backflow preventer shall be installed after the water meter but before any backflow or pressure-reducing valve for the building.
6. A pressure-reducing valve should be used when the static water pressure exceeds the pressure needed by the system by 15 pounds per square inch (psi). Pressure reducing valves can be installed within the project, on the mainline or at the valve, if elevation changes require it.

7. Turf and grass area design principles:
 - a. No single zone should mix head types, such as rotors and pop-up spray heads on the same zone.
 - b. Sprinklers should be spaced for “head-to-head” coverage, where the spray pattern from one head will reach to the next head. (Another way to describe this is that all sprinkler heads should be spaced at a maximum of 50% of design performance diameter of the sprinkler.) Spacing should be reduced below 50% of design performance diameter when conditions demand.
 - c. No overhead sprinkler irrigation systems should be installed in strips less than 8 feet wide.
 - d. Small areas (25 ft wide or less) should be irrigated with fixed nozzle pop-up spray heads with matched precipitation nozzles. Nozzles should be sized to provide head to head coverage. Heads shall pop-up a minimum of 4” in turf areas. Heads can be specified with pressure reducing features, where needed.
 - e. Large areas (wider than 25 ft) should be irrigated with gear driven rotor heads with a minimum precipitation rate of 0.45” per hour for a full circle head. Heads should pop-up a minimum of 4” in turf areas.
 - f. Check valves should be included in heads or valves where low-head drainage will occur due to elevation changes. See irrigation head catalogs for elevation change tolerances.
8. Shrub bed areas with plant material one gallon in size or larger should be irrigated with a drip or subsurface system.
9. Perennial and annual beds should be spray irrigated with 12” pop-up spray heads with a maximum spacing of 10’ on center.
10. Booster pumps should be installed on systems where supply pressure does not meet minimum recommended pressure of the irrigation system, based on hydraulic calculations.
11. Where the water supplied will be from secondary or other non-potable water sources, the use of non-potable color indicators on the equipment is recommended. This includes purple handles on quick coupler valves and gate valve, caps for irrigation heads, valve box lids and marker tape buried above the mainline.
12. All systems should be equipped with an automatic rain shut-off device.
13. All wire connections should be made with watertight connectors and contained in a valve box.

C. Employ irrigation control systems that offer flexibility in programming.

1. All irrigation systems should include an electric automatic controller with multiple programs and multiple repeat and rest cycle capabilities and a flexible calendar program.
2. All controllers should be capable of temporarily shutting down the system by utilizing internal/external options such as rain and wind sensors.
3. The controller should have the ability to adjust run times based on a percentage of maximum ET (evapotranspiration) rate.
4. Each zone/valve should have its own station on the controller. The exception is drip valves, which can be doubled on the controller.

D. Ensure installation of irrigation system is per plan and is accurate.

1. Irrigation system should be installed per plans.

2. The irrigation system should be monitored during installation, especially to verify mainline and lateral line depth, spacing of irrigation heads and construction of valve clusters and quick coupler components.
 3. Mainline should be tested to ensure its ability to maintain required pressure for 2 hours.
 4. Before acceptance, each zone should be operated and each valve box opened to verify accurate installation.
- E. Provide “as-built” drawings of irrigation system after installation with dimensions shown for irrigation components.
1. The “as-built” drawings should show all points of connection, including tap size, line size and static water pressure of service. Dimensions that will be used to locate components shall be shown on plans. Components to be located include meters, backflow preventers, all valves, including quick coupler, control, gate, and manual drain valves, and controller locations.
 2. The drawings should also show zone number, valve size and gallons per minute.
- F. Operate systems to maximize irrigation waterefficiency.
1. Irrigation should be scheduled to operate between 10 PM and 8 AM to reduce water loss from wind and evaporation and to take advantage of the better water pressure.
 2. The target efficiency for rotor heads should be 70%, and 55% for spray heads.
 3. Program valves for multiple repeat cycles to reduce runoff, especially on slopes and with soils with slow infiltration rates.
 4. All zone run times should be determined based on the precipitation rate of the heads on that zone. The run times should be adjusted seasonally and at least once a month to accommodate the ET rate.
 5. System should be winterized in the fall using a compressor to remove water in the lines and components. System should be reopened and adjusted for proper operation in the spring.
 6. After each mowing, each zone should be operated for a very short period of time to verify the heads are operating as designed and no damage has occurred.
 7. When repairs are made, the new components installed should match exactly those damaged and removed.
 8. Run times for zones should be adjusted based on exposure (north and east vs. south and west), slope and soil types to reduce overwatering.

WaterWise Landscaping Best Practices

Section 7 – Water Budgeting

A. Calculating a Water Budget

A Water Budget is the target amount of water a landowner should use in a typical watering season. This target provides simple-to-achieve, realistic goals for landscape irrigation. Water Budgeting focuses less on watering time limits, and is more concerned with a user's water allotment and reducing over-watering. This form can help any user create a target Water Budget from which to work.

The information below will help guide you through the Water Budget Worksheet on the following page.

Step 1. ET Reference Location:

Because climate conditions vary throughout Colorado, the rate at which water evaporates (evaporation) and the rate at which plants use water (transpiration) varies in different areas of the state. Based on those climatic differences, it is important to identify the general Evapo-Transpiration (ET) Reference Locations in which you are located. The four largest regions can be categorized as: Denver, Colorado Springs, Grand Junction and Pueblo.

Step 2. Gallons of Water Needed by Plant Category:

Different plants have different water needs. A plant list that identifies the water needs of landscape plants (High, Moderate, Low, Very Low) is included in Section Three of this Best Practices Manual. The ET Rates are provided on the worksheet, and will need to be applied in the calculations in Step 4 below.

Step 3. Irrigation Areas (zones) based on Plant Water Need Category:

Both automatic irrigation systems and hand-placed yard sprinklers deliver water to plants by watering areas or "zones", and have set watering amounts determined by you, the user. If you have High water need plants within Low or Very Low water plant groupings, the entire area must be considered a High-water area and irrigated as such; however some plants may be over-watered if this occurs. The area of each watering zone can be determined by physically measuring the zone, and multiplying Length (in feet) by Width (in feet). The resulting areas (in square feet, or S.F.) can be entered in Step 4 below.

Step 4. Water-Use Calculations:

Fill in the blanks with area and water need per zone. For example, in the Denver region you might have an area of 300 S.F. in a High Water Zone that would require 20 gallons of water per S.F. After multiplying you would find that area requires 6,000 gallons of water per season.

After calculating the irrigation needs of all areas, determine your average overall water needs per season. To do this, add the total gallons needed for all zones, and divide by the total Square Footage for all zones. The average for the overall site needs to be no more than 15 gallons per S.F. per season. If your average is more than this, you might consider modifying your planting layout to create more Low/Very Low Water Zones that would balance your High/Moderate Water Zones, and reduce over-watering.

WaterWise Landscaping Best Practices

B. Water Budget Worksheet

1. ET Reference Location:

Identify the general Evapo-Transpiration (ET) Reference Location in which you are located. The four largest regions are listed below and include surrounding metropolitan areas:

___Denver ___Colorado Springs ___Grand Junction ___Pueblo

2. Gallons of Water Needed by Plant Category:

Determine the water needs of the various plants in your design. A plant list that identifies water needs (High, Moderate, Low, Very Low) is included in Section Three of this Best Practices Manual.

Plant	Water Need Category	Gallons of Water used (ET Rate)*
H =	High water plants	(20 gallons/SF/season -- Denver)
M =	Moderate water plants	(10 gallons/SF/season -- Denver)
L =	Low water plants	(0-3 gallons/SF/season -- Denver)
VL =	Very Low water plants	(no irrigation needed; typical rainfall is sufficient)

The ET Rates for regions other than Denver are not yet accurate. One might assume that the ETR for Colorado Springs is 10% less than Denver's, and those for Grand Junction and Pueblo may be as much as 25% higher than Denver's.

3. Irrigation Areas (zones) based on Plant Water Need Category:

Identify each zone requiring irrigation, and calculate the area (in square feet) of each zone. If plants are already installed and/or not grouped together by water need, pick the highest water need category included in each zone.

4. Water-Use Calculations:

HIGH WATER ZONES: _____ S.F. x (_____ gals./S.F.) = _____ gals / season

MODERATE WATER ZONES: _____ S.F. x (_____ gals. /S.F.) = _____ gals / season

LOW WATER ZONES: _____ S.F. x (_____ gals./S.F.) = _____ gals / season

VERY LOW WATER ZONES: _____ S.F. x (_____ gals./S.F.) = _____ gals / season **TOTAL**

gallons needed by ALL ZONES: _____ = _____ gals / season

TOTAL Square Feet (S.F.) of ALL ZONES: _____ = _____ S.F.

***AVERAGE GALS./S.F./SEASON, ALL ZONES:** Total Gals / Total SF = _____ gals / season

*The average needs to be a maximum of 15 gals. / S.F. / season.

*WaterWise Landscaping
Best Practices**Section 8 – Additional Resources**Water Conservation Internet Sources*

- Waterwiser, National Water Efficiency Clearinghouse, www.waterwiser.org
- Water Saver Home, www.h2ouse.org
- U.S. Geologic Survey, Water use in the United States, www.water.usgs.gov/watuse
- Western States Water Council, www.westgov.org/wswc
- Colorado Water Conservation Board, www.cwcb.state.co.us
- Colorado Nonpoint Source Program, www.ourwater.com
- Denver Water, www.water.denver.co.gov/indexmain.html
- WaterSaver from Denver Water, www.watersaver.org

WaterWise Landscaping Internet Sources

- GreenCO Best Management Practices, www.grennco.org/bmp_list.html
- National Association of Irrigation Design/ Certification, www.irrigation.org/certification.html
- American Nursery and Landscape Association, www.anla.org
- Associated Landscape Contractors of Colorado, www.alcc.com
- Smart Gardening, www.smartgardening.com
- Xeriscaping, www.xeriscape.org
- Colorado State University Horticulture Department, www.hla.agsci.coloradostate.edu
- CSU Cooperative Extension Service, www.ext.colostate.edu/garden
- Colorado Nurseries, www.colorado-nusery-assn.org

- Gardening Colorado, www.gardeningcolorado.com
- Xeriscape Gardening, www.xratedgardening.com

Seed and Plant Sources

- Garden Centers of Colorado, www.gardencentersofcolorado.org
- Colorado Native Plant Society, www.carbon.cudenver.edu/~shill/conps.html
- High Country Gardens, www.highcountrygardens.com
- Arkansas Valley Seed Solutions, www.seedsolutions.com
- Rocky Mountain Sod Growers Association, www.rockymountainsodgrowers.com

Demonstration Gardens

- Colorado Xeriscape Demonstration Gardens, www.xeriscape.org/demogardens.html

Waterwise Gardening Books

- *The Xeriscape Flower Gardener*, Jim Knopf, Boulder, CO, Johnson Books, 2003
- *Waterwise Landscaping with Trees, Shrubs, and Vines*, Jim Knopf
- *Xeriscape Plant Guide*, Rob Proctor/David Winger, Fulcrum Publishing, 1996
- *Xeriscape Handbook*, Gayle Weinstein/ David Winger, Fulcrum Publishing, 2003
- *Xeriscape Color Guide*, David Winger/Denver Water, Fulcrum Publishing, 1998
- *Western Garden Book*, Kathleen Norris Brenzel, Sunset Publishing, 2001
- *Water-Efficient Landscape Guidelines*, Richard E Bennett/ Michael S. Hazinski, American Water Works Association, 1993
- *The Rocky Mountain Perennial Plant Guide*, Colorado Nursery Association, 1995
- *Rocky Mountain Plant Guide*, Colorado Nursery Association, 1993

Appendix G

5-Year Opinion of Probable Construction and Capital Improvement Plan Costs

OPCCs and CIP total estimates for 5-Year recommended CIP Projects are presented below in **Table G-1** through **Table G-12**. The estimated cost for each line item, also known as the extended cost within a project is determined by multiplying the line item quantity times the unit cost. Each line item extended cost is added to the project total cost column to determine OPCC estimates. All costs are August 2020 dollars from ENR-CCI.

Table G-1 – SA-44 Centennial Park OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	3,520	\$172/LF	\$605,939	\$605,939
Water Distribution 8" (Trenchless J&B)	200	\$478/LF	\$95,617	\$95,617
Pump Station - 1,300 gpm	1	LS	\$1,734,548	\$1,734,548
New Pond	3	\$60,964/AF	\$154,330	\$154,330
Tier 1 Dewatering	1,800	\$105/LF	\$189,000	\$189,000
Unit Cost Subtotal				\$2,779,435
Erosion Control/Stormwater Pollution Prevention		2%		\$55,589
Mobilization & Demobilization		5%		\$138,972
Subtotal				\$2,973,995
Contingency		35%		\$1,040,900
Opinion of Probable Construction Cost (rounded)				\$4,020,000
Feasibility and Site Studies		6% of OPCC		\$242,000
Preliminary and Final Design		6% of OPCC		\$242,000
Engineering Services During Construction		5% of OPCC		\$201,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$201,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$121,000
Capital Improvement Plan Total				\$5,030,000

Table G-2 – Boomerang PS OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Pump Station - 3,100 gpm	1	LS	\$3,064,486	\$3,064,486
Pond Expansion	12.52	\$60,964/AF	\$763,000	\$763,000
Unit Cost Subtotal				\$3,827,486
Erosion Control/Stormwater Pollution Prevention		2%		\$76,550
Mobilization & Demobilization		5%		\$191,374
Subtotal				\$4,095,410
Contingency		35%		\$1,433,400
Opinion of Probable Construction Cost (rounded)				\$5,530,000
Feasibility and Site Studies		6% of OPCC		\$332,000
Preliminary and Final Design		6% of OPCC		\$332,000
Engineering Services During Construction		5% of OPCC		\$277,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$277,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$166,000
Capital Improvement Plan Total				\$6,920,000

Table G-3 – Boomerang Regional Phase 2 OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 10"	5,472	\$178/LF	\$974,896	\$974,896
Tier 2 Dewatering	5,472	\$52.50/LF	\$287,280	\$287,280
Unit Cost Subtotal				\$1,262,176
Erosion Control/Stormwater Pollution Prevention		2%		\$25,244
Mobilization & Demobilization		5%		\$63,109
Subtotal				\$1,350,528
Contingency		35%		\$472,690
Opinion of Probable Construction Cost (rounded)				\$1,830,000
Easement		5% of OPCC		\$92,000
Feasibility and Site Studies		6% of OPCC		\$110,000
Preliminary and Final Design		6% of OPCC		\$110,000
Engineering Services During Construction		5% of OPCC		\$92,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$92,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$55,000
Capital Improvement Plan Total				\$2,390,000

Table G-4 – Greeley West Pump Station Replacement OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 10"	6,993	\$178/LF	\$1,245,879	\$1,245,879
Pump Station - 2,000 gpm	1	LS	\$2,299,902	\$2,299,902
Pond Expansion	9.55	\$60,964/AF	\$582,203	\$582,203
Unit Cost Subtotal				\$4,127,984
Erosion Control/Stormwater Pollution Prevention		2%		\$82,560
Mobilization & Demobilization		5%		\$206,399
Subtotal				\$4,416,943
Contingency		35%		\$1,545,930
Opinion of Probable Construction Cost (rounded)				\$5,970,000
Feasibility and Site Studies		6% of OPCC		\$359,000
Preliminary and Final Design		6% of OPCC		\$359,000
Engineering Services During Construction		5% of OPCC		\$299,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$299,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$180,000
Capital Improvement Plan Total				\$7,470,000

Table G-5 – Upper Equalizer Project OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 36"	25,646	\$421/LF	\$10,805,334	\$10,805,334
Water Distribution 36" (Trenchless J&B)	850	\$1,960/LF	\$1,665,681	\$1,665,681
Water Distribution 36" (Trenchless HDD)	250	\$1,796/LF	\$449,047	\$449,047
Tier 1 Dewatering	350	\$105/LF	\$36,750	\$36,750
Tier 2 Dewatering	17,000	\$52.50/LF	\$892,500	\$892,500
Unit Cost Subtotal				\$13,849,313
Erosion Control/Stormwater Pollution Prevention		2%		\$276,986
Mobilization & Demobilization		5%		\$692,466
Subtotal				\$14,818,764
Contingency		35%		\$5,186,570
Opinion of Probable Construction Cost (rounded)				\$20,010,000
Easement		5% of OPCC		\$1,001,000
Feasibility and Site Studies		5% of OPCC		\$1,001,000
Preliminary and Final Design		5% of OPCC		\$1,001,000
Engineering Services During Construction		5% of OPCC		\$1,001,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$1,001,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$601,000
Capital Improvement Plan Total				\$25,620,000

Table G-6 – SA-14 Tech Center Supply OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 16"	3,286	\$224/LF	\$735,751	\$735,751
Pump Station - 1,120 gpm	1	LS	\$1,573,250	\$1,573,250
New Pond	13	\$60,964/AF	\$818,868	\$818,868
Tier 1 Dewatering	250	\$105/LF	\$26,250	\$26,250
Unit Cost Subtotal				\$3,154,120
Erosion Control/Stormwater Pollution Prevention		2%		\$63,082
Mobilization & Demobilization		5%		\$157,706
Subtotal				\$3,374,908
Contingency		35%		\$1,181,220
Opinion of Probable Construction Cost (rounded)				\$4,560,000
Easement		5% of OPCC		\$228,000
Feasibility and Site Studies		6% of OPCC		\$274,000
Preliminary and Final Design		6% of OPCC		\$274,000
Engineering Services During Construction		5% of OPCC		\$228,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$228,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$137,000
Capital Improvement Plan Total				\$5,930,000

Table G-7 – Promontory Park Expansion OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 10"	2,237	\$178/LF	\$398,546	\$398,546
Unit Cost Subtotal				\$398,546
Erosion Control/Stormwater Pollution Prevention		2%		\$7,971
Mobilization & Demobilization		5%		\$19,927
Subtotal				\$426,444
Contingency		35%		\$149,260
Opinion of Probable Construction Cost (rounded)				\$580,000
Feasibility and Site Studies		9% of OPCC		\$53,000
Preliminary and Final Design		9% of OPCC		\$53,000
Engineering Services During Construction		5% of OPCC		\$29,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$0
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$0
Capital Improvement Plan Total				\$720,000

Table G-8 – Monfort Expansion OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	1,458	\$172/LF	\$250,983	\$250,983
Tier 1 Dewatering	200	\$105/LF	\$21,000	\$21,000
Unit Cost Subtotal				\$271,983
Erosion Control/Stormwater Pollution Prevention		2%		\$5,440
Mobilization & Demobilization		5%		\$13,599
Subtotal				\$291,022
Contingency		35%		\$101,860
Opinion of Probable Construction Cost (rounded)				\$400,000
Feasibility and Site Studies		9% of OPCC		\$36,000
Preliminary and Final Design		9% of OPCC		\$36,000
Engineering Services During Construction		5% of OPCC		\$20,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$0
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$0
Capital Improvement Plan Total				\$500,000

Table G-9 – Twin Rivers Expansion OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	5,574	\$172/LF	\$959,519	\$959,519
Tier 1 Dewatering	256	\$105/LF	\$26,880	\$26,880
Tier 2 Dewatering	5,318	\$52.50/LF	\$279,195	\$279,195
Unit Cost Subtotal				\$1,265,594
Erosion Control/Stormwater Pollution Prevention		2%		\$25,312
Mobilization & Demobilization		5%		\$63,280
Subtotal				\$1,354,185
Contingency		35%		\$473,970
Opinion of Probable Construction Cost (rounded)				\$1,830,000
Easement		5% of OPCC		\$92,000
Feasibility and Site Studies		6% of OPCC		\$110,000
Preliminary and Final Design		6% of OPCC		\$110,000
Engineering Services During Construction		5% of OPCC		\$92,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$92,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$55,000
Capital Improvement Plan Total				\$2,390,000

Table G-10 – SA-38 1st Ave. Pond OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	4,558	\$172/LF	\$784,623	\$784,623
Water Distribution 8" (Trenchless HDD)	350	\$585/LF	\$204,582	\$204,582
Pump Station - 260 gpm	1	LS	\$604,548	\$604,548
New Pond	0.55	\$60,964/AF	\$33,253	\$33,253
Tier 1 Dewatering	807	\$105/LF	\$84,735	\$84,735
Tier 2 Dewatering	3,751	\$52.50/LF	\$196,928	\$196,928
Unit Cost Subtotal				\$1,908,669
Erosion Control/Stormwater Pollution Prevention		2%		\$38,173
Mobilization & Demobilization		5%		\$95,433
Subtotal				\$2,042,276
Contingency		35%		\$714,800
Opinion of Probable Construction Cost (rounded)				\$2,760,000
Easement		5% of OPCC		\$138,000
Feasibility and Site Studies		6% of OPCC		\$166,000
Preliminary and Final Design		6% of OPCC		\$166,000
Engineering Services During Construction		5% of OPCC		\$138,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$138,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$83,000
Capital Improvement Plan Total				\$3,590,000

Table G-11 – SA-25 Westgate Regional PS OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Pump Station - 860 gpm	1	LS	\$1,323,329	\$1,323,329
New Pond	2.40	\$60,964/AF	\$146,386	\$146,386
Unit Cost Subtotal				\$1,469,716
Erosion Control/Stormwater Pollution Prevention		2%		\$29,394
Mobilization & Demobilization		5%		\$73,486
Subtotal				\$1,572,596
Contingency		35%		\$550,410
Opinion of Probable Construction Cost (rounded)				\$2,130,000
Feasibility and Site Studies		6% of OPCC		\$128,000
Preliminary and Final Design		6% of OPCC		\$128,000
Engineering Services During Construction		5% of OPCC		\$107,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$107,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$64,000
Capital Improvement Plan Total				\$2,670,000

Table G-12 – SA-25 Westgate Regional Phase 1 OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	3,527	\$172/LF	\$607,144	\$607,144
Tier 1 Dewatering	100	\$105/LF	\$10,500	\$10,500
Unit Cost Subtotal				\$617,644
Erosion Control/Stormwater Pollution Prevention		2%		\$12,353
Mobilization & Demobilization		5%		\$30,882
Subtotal				\$660,880
Contingency		35%		\$231,310
Opinion of Probable Construction Cost (rounded)				\$900,000
Easement		5% of OPCC		\$45,000
Feasibility and Site Studies		9% of OPCC		\$81,000
Preliminary and Final Design		9% of OPCC		\$81,000
Engineering Services During Construction		5% of OPCC		\$45,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$0
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$0
Capital Improvement Plan Total				\$1,160,000

Table G-13 – SA-60 Lake Bluffs OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	3,424	\$172/LF	\$589,414	\$589,414
Water Distribution 8" (Trenchless J&B)	250	\$478/LF	\$119,521	\$119,521
Water Distribution 10"	3,786	\$178/LF	\$674,517	\$674,517
Pump Station - 1,120 gpm	1	LS	\$1,573,250	\$1,573,250
New Pond	4.25	\$60,964/AF	\$258,879	\$258,879
Unit Cost Subtotal				\$3,215,581
Erosion Control/Stormwater Pollution Prevention		2%		\$64,312
Mobilization & Demobilization		5%		\$160,779
Subtotal				\$3,440,672
Contingency		35%		\$1,204,240
Opinion of Probable Construction Cost (rounded)				\$4,650,000
Easement		5% of OPCC		\$233,000
Feasibility and Site Studies		6% of OPCC		\$279,000
Preliminary and Final Design		6% of OPCC		\$279,000
Engineering Services During Construction		5% of OPCC		\$233,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$233,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$140,000
Capital Improvement Plan Total				\$6,050,000

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Appendix H

20-Year Opinion of Probable Construction and Capital Improvement Plan Costs

OPCCs and CIP total estimates for 20-Year recommended CIP Projects are presented below in **Table H-1** through **Table H-11**. The estimated cost for each line item, also known as the extended cost within a project is determined by multiplying the line item quantity times the unit cost. Each line item extended cost is added to the project total cost column to determine OPCC estimates. All costs are August 2020 dollars from ENR-CCI.

Table H-1 – SA-34 30th St./17th Ave. OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Pump Station - 1,000 gpm	1	LS	\$1,460,713	\$1,460,713
New Pond	2.14	\$60,964/AF	\$130,246	\$130,246
Unit Cost Subtotal				\$1,590,959
Erosion Control/Stormwater Pollution Prevention		2%		\$31,819
Mobilization & Demobilization		5%		\$79,548
Subtotal				\$1,702,326
Contingency		35%		\$595,820
Opinion of Probable Construction Cost (rounded)				\$2,300,000
Feasibility and Site Studies		6% of OPCC		\$138,000
Preliminary and Final Design		6% of OPCC		\$138,000
Engineering Services During Construction		5% of OPCC		\$115,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$115,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$69,000
Capital Improvement Plan Total				\$2,880,000

Table H-2 Boomerang Regional Phase 3 OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 16"	15,382	\$224/LF	\$3,444,104	\$3,444,104
Tier 2 Dewatering	15,382	\$52.50/LF	\$807,555	\$807,555
Unit Cost Subtotal				\$4,251,659
Erosion Control/Stormwater Pollution Prevention		2%		\$85,033
Mobilization & Demobilization		5%		\$212,583
Subtotal				\$4,549,275
Contingency		35%		\$1,592,250
Opinion of Probable Construction Cost (rounded)				\$6,150,000
Easement		5% of OPCC		\$308,000
Feasibility and Site Studies		6% of OPCC		\$369,000
Preliminary and Final Design		6% of OPCC		\$369,000
Engineering Services During Construction		5% of OPCC		\$308,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$308,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$185,000
Capital Improvement Plan Total				\$8,000,000

Table H-3 – SA-4 35th Ave./O St. OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Pump Station - 280 gpm	1	LS	\$634,613	\$634,613
New Pond	0.86	\$60,964/AF	\$52,560	\$52,560
Unit Cost Subtotal				\$687,172
Erosion Control/Stormwater Pollution Prevention		2%		\$13,743
Mobilization & Demobilization		5%		\$34,359
Subtotal				\$735,274
Contingency		35%		\$257,350
Opinion of Probable Construction Cost (rounded)				\$1,000,000
Feasibility and Site Studies		6% of OPCC		\$60,000
Preliminary and Final Design		6% of OPCC		\$60,000
Engineering Services During Construction		5% of OPCC		\$50,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$0
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$0
Capital Improvement Plan Total				\$1,170,000

Table H-4 – SA-3 35th Ave./AA St. OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Pump Station - 620 gpm	1	LS	\$1,068,076	\$1,068,076
New Pond	2.33	\$60,964/AF	\$141,861	\$141,861
Unit Cost Subtotal				\$1,209,937
Erosion Control/Stormwater Pollution Prevention		2%		\$24,199
Mobilization & Demobilization		5%		\$60,497
Subtotal				\$1,294,633
Contingency		35%		\$453,130
Opinion of Probable Construction Cost (rounded)				\$1,750,000
Feasibility and Site Studies		6% of OPCC		\$105,000
Preliminary and Final Design		6% of OPCC		\$105,000
Engineering Services During Construction		5% of OPCC		\$87,500
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$87,500
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$53,000
Capital Improvement Plan Total				\$2,190,000

Table H-5 – Bittersweet Park Expansion OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	6,296	\$172/LF	\$1,083,805	\$1,083,805
Water Distribution 8" (Trenchless J&B)	600	\$478/LF	\$286,851	\$286,851
Tier 1 Dewatering	200	\$105/LF	\$21,000	\$21,000
Tier 2 Dewatering	6,696	\$52.50/LF	\$351,540	\$351,540
Unit Cost Subtotal				\$1,743,196
Erosion Control/Stormwater Pollution Prevention		2%		\$34,864
Mobilization & Demobilization		5%		\$87,160
Subtotal				\$1,865,220
Contingency		35%		\$652,830
Opinion of Probable Construction Cost (rounded)				\$2,520,000
Feasibility and Site Studies		6% of OPCC		\$152,000
Preliminary and Final Design		6% of OPCC		\$152,000
Engineering Services During Construction		5% of OPCC		\$126,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$126,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$75,600
Capital Improvement Plan Total				\$3,160,000

Table H-6 – SA-35 44th Ave./F St. OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Pump Station - 820 gpm	1	LS	\$1,282,689	\$1,282,689
New Pond	2.34	\$60,964/AF	\$142,566	\$142,566
Unit Cost Subtotal				\$1,425,256
Erosion Control/Stormwater Pollution Prevention		2%		\$28,505
Mobilization & Demobilization		5%		\$71,263
Subtotal				\$1,525,023
Contingency		35%		\$533,760
Opinion of Probable Construction Cost (rounded)				\$2,060,000
Feasibility and Site Studies		6% of OPCC		\$124,000
Preliminary and Final Design		6% of OPCC		\$124,000
Engineering Services During Construction		5% of OPCC		\$103,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$103,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$62,000
Capital Improvement Plan Total				\$2,580,000

Table H-7 – SA-36 59th Ave./10th St. OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	134	\$172/LF	\$23,067	\$23,067
Water Distribution 10"	8,754	\$178/LF	\$1,559,620	\$1,559,620
Water Distribution 10" (Trenchless J&B)	400	\$581/LF	\$232,590	\$232,590
Pump Station - 1,580 gpm	1	LS	\$1,970,903	\$1,970,903
New Pond	3.40	\$60,964/AF	\$207,115	\$207,115
Tier 1 Dewatering	900	\$105/LF	\$94,500	\$94,500
Tier 2 Dewatering	8,388	\$52.50/LF	\$440,370	\$440,370
Unit Cost Subtotal				\$4,528,165
Erosion Control/Stormwater Pollution Prevention		2%		\$90,563
Mobilization & Demobilization		5%		\$226,408
Subtotal				\$4,845,137
Contingency		35%		\$1,695,800
Opinion of Probable Construction Cost (rounded)				\$6,550,000
Feasibility and Site Studies		6% of OPCC		\$393,000
Preliminary and Final Design		6% of OPCC		\$393,000
Engineering Services During Construction		5% of OPCC		\$327,500
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$327,500
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$197,000
Capital Improvement Plan Total				\$8,190,000

Table H-8 – SA-16 95th Ave./16th St. OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 10"	4,640	\$178/LF	\$826,666	\$826,666
Pump Station - 1,220 gpm	1	LS	\$1,663,880	\$1,663,880
New Pond	3.99	\$60,964/AF	\$243,309	\$243,309
Tier 1 Dewatering	575	\$105/LF	\$60,375	\$60,375
Unit Cost Subtotal				\$2,794,230
Erosion Control/Stormwater Pollution Prevention		2%		\$55,885
Mobilization & Demobilization		5%		\$139,711
Subtotal				\$2,989,826
Contingency		35%		\$1,046,440
Opinion of Probable Construction Cost (rounded)				\$4,040,000
Easement		5% of OPCC		\$202,000
Feasibility and Site Studies		6% of OPCC		\$243,000
Preliminary and Final Design		6% of OPCC		\$243,000
Engineering Services During Construction		5% of OPCC		\$202,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$202,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$122,000
Capital Improvement Plan Total				\$5,260,000

Table H-9 – SA-14 Tech Center Expansion OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 16"	8,221	\$224/LF	\$1,840,722	\$1,840,722
Unit Cost Subtotal				\$1,840,722
Erosion Control/Stormwater Pollution Prevention		2%		\$36,814
Mobilization & Demobilization		5%		\$92,036
Subtotal				\$1,969,572
Contingency		35%		\$689,360
Opinion of Probable Construction Cost (rounded)				\$2,660,000
Easement		5% of OPCC		\$133,000
Feasibility and Site Studies		6% of OPCC		\$160,000
Preliminary and Final Design		6% of OPCC		\$160,000
Engineering Services During Construction		5% of OPCC		\$133,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$133,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$80,000
Capital Improvement Plan Total				\$3,460,000

Table H-10 – SA-15 37th St./SH-257 Pump Station OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Pump Station - 1,400 gpm	1	LS	\$1,820,808	\$1,820,808
New Pond	5.33	\$60,964/AF	\$325,186	\$325,186
Unit Cost Subtotal				\$2,145,994
Erosion Control/Stormwater Pollution Prevention		2%		\$42,920
Mobilization & Demobilization		5%		\$107,300
Subtotal				\$2,296,213
Contingency		35%		\$803,680
Opinion of Probable Construction Cost (rounded)				\$3,100,000
Feasibility and Site Studies		6% of OPCC		\$186,000
Preliminary and Final Design		6% of OPCC		\$186,000
Engineering Services During Construction		5% of OPCC		\$155,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$155,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$93,000
Capital Improvement Plan Total				\$3,880,000

Table H-11 – SA-12 Cobblestone Regional OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 10"	2,023	\$178/LF	\$360,419	\$360,419
Pump Station - 1,180 gpm	1	LS	\$1,627,947	\$1,627,947
New Pond	4.44	\$60,964/AF	\$270,436	\$270,436
Unit Cost Subtotal				\$2,258,802
Erosion Control/Stormwater Pollution Prevention		2%		\$45,176
Mobilization & Demobilization		5%		\$112,940
Subtotal				\$2,416,918
Contingency		35%		\$845,930
Opinion of Probable Construction Cost (rounded)				\$3,270,000
Easement		5% of OPCC		\$164,000
Feasibility and Site Studies		6% of OPCC		\$196,200
Preliminary and Final Design		6% of OPCC		\$196,200
Engineering Services During Construction		5% of OPCC		\$164,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$164,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$99,000
Capital Improvement Plan Total				\$4,260,000

Table H-12 – Glenmere Park Expansion OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	4,136	\$172/LF	\$711,979	\$711,979
Water Distribution 8" (Trenchless J&B)	100	\$478/LF	\$47,808	\$47,808
Pond Expansion	2.91	\$60,964/AF	\$177,404	\$177,404
Tier 1 Dewatering	143	\$105/LF	\$15,015	\$15,015
Tier 2 Dewatering	4,093	\$52.50/LF	\$214,883	\$214,883
Unit Cost Subtotal				\$1,167,089
Erosion Control/Stormwater Pollution Prevention		2%		\$23,342
Mobilization & Demobilization		5%		\$58,354
Subtotal				\$1,248,785
Contingency		35%		\$437,080
Opinion of Probable Construction Cost (rounded)				\$1,690,000
Easement		5% of OPCC		\$85,000
Feasibility and Site Studies		6% of OPCC		\$102,000
Preliminary and Final Design		6% of OPCC		\$102,000
Engineering Services During Construction		5% of OPCC		\$85,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$85,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$51,000
Capital Improvement Plan Total				\$2,200,000

Table H-13 – SA-25 Westgate Regional Phase 2 OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	3,782	\$172/LF	\$651,041	\$651,041
Unit Cost Subtotal				\$651,041
Erosion Control/Stormwater Pollution Prevention		2%		\$13,021
Mobilization & Demobilization		5%		\$32,552
Subtotal				\$696,613
Contingency		35%		\$243,820
Opinion of Probable Construction Cost (rounded)				\$950,000
Easement		5% of OPCC		\$48,000
Feasibility and Site Studies		9% of OPCC		\$86,000
Preliminary and Final Design		9% of OPCC		\$86,000
Engineering Services During Construction		5% of OPCC		\$48,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$0
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$0
Capital Improvement Plan Total				\$1,220,000

Table H-14 – SA-42 23rd Ave./Northwest C St. OPCC and CIP Total

Item	Quantity	Unit Cost	Extended Cost	Total Cost
Water Distribution 8"	5,924	\$172/LF	\$1,019,769	\$1,019,769
Water Distribution 8" (Trenchless J&B)	150	\$478/LF	\$71,713	\$71,713
Pump Station - 1,180 gpm	1	LS	\$1,627,947	\$1,627,947
New Pond	2.75	\$60,964/AF	\$167,555	\$167,555
Tier 1 Dewatering	41	\$105/LF	\$4,305	\$4,305
Tier 2 Dewatering	5,883	\$52.50/LF	\$308,858	\$308,858
Unit Cost Subtotal				\$3,200,146
Erosion Control/Stormwater Pollution Prevention		2%		\$64,003
Mobilization & Demobilization		5%		\$160,007
Subtotal				\$3,424,156
Contingency		35%		\$1,198,460
Opinion of Probable Construction Cost (rounded)				\$4,630,000
Easement		5% of OPCC		\$232,000
Feasibility and Site Studies		6% of OPCC		\$278,000
Preliminary and Final Design		6% of OPCC		\$278,000
Engineering Services During Construction		5% of OPCC		\$232,000
Outside Construction Management - not used if OPCC value is < \$1M		5% of OPCC		\$232,000
Outside Project Management - not used if OPCC value is < \$1M		3% of OPCC		\$139,000
Capital Improvement Plan Total				\$6,030,000

Appendix I

CIP Development

I.1.1 Variability in Data

Data was obtained from past contractor bidding information provided by the City and other Front Range communities, as well as national sources. This data included unit costs for different potential capital expenditures within wastewater, water, and NP projects. The data varied in level of detail and definition of each cost element. For example, pipeline costs may or may not include dewatering, restoration, or paving project sites. Pipe cost data from the different sources also varied by construction depth, ground conditions, and method of installation for pipeline. For example, one data source may have identified unit price for a given pipe diameter size at a given depth, while another data source provided unit costs for given pipe diameter sizes of various depths within developed or undeveloped land areas. Both data sources provide information regarding pipe installation costs but need to be considered based on the level of detail that is desired for project CIP development.

I.1.2 Unknown Elements and Assumptions

Assumptions made during CIP development mean planning level costs will vary from construction bid costs. The assumptions are necessary to capture costs for project elements that cannot be defined at the planning level. Examples of undefinable costs include dewatering areas, utility pipeline crossings, permitting for project implementation, final contractor bid quantities, seasonal soil and ground conditions, and stormwater management of project sites. Assumptions are also made for method of pipe installation, timing of projects, and materials of construction. During design development, additional field information including survey, geotechnical data, groundwater levels, traffic control requirements, and final pipe alignment of project areas should be available to help refine the project elements and construction methods.

Trendlines and linear interpolation were used to develop costs for project elements with insufficient data. For example, cost data was obtained for the trenchless installation of water distribution and transmission lines for 4 inch through 60-inch diameter pipe, however there was limited cost information for 36-inch pipe. Trend line equations for linear, polynomial, and logarithmic and their respective R² values were compared to identify the most probable estimation equation. In this case, the trendline equation with an R² value closest to 1 was selected as the most probable estimation equation. Because the trendline with the most pertinent R² value may not reflect the true cost, CDM Smith recommends the City readjust cost data throughout the planning horizon.

An example of comparing different trend line equations and their respective R² values for approximating missing data is shown in **Figure I-1**. This example highlights the jack and bore (J&B) trenchless installation of water distribution and transmission pipeline items. In this example, the second order polynomial trend line (shown by the purple dotted line below) has the closest R² value to 1 compared to the exponential and logarithmic trend lines (shown by the blue and green dotted lines below, respectively) based on available data. As a result, without

additional industry knowledge and experience, the linear trend line would be assumed to best approximate unit costs for J&B trenchless pipe installation for pipe diameter sizes not available from the given data set. This assumption may conflict with actual J&B trenchless pipe installation data trends known in industry, which may better be approximated by exponential or logarithmic trend lines. This would especially be true when predicting trenchless pipe installation for large pipe diameter sizes (i.e., greater than 24 inch) where predictions of data points of the trend lines begin to greatly diverge. At a planning level, this limitation is acceptable when a cushion of construction cost contingency (i.e., 30%) is added to help absorb this unit cost uncertainty. However, at an engineering design level, where construction cost contingency is lowered, the chosen trend line that best reflects industry data trends should be used to model trenchless pipe installation. This should also be used for all unit cost items where trendlines are used, regardless of if the chosen trend line has an R2 value closest to 1 in order to avoid unnecessary error.

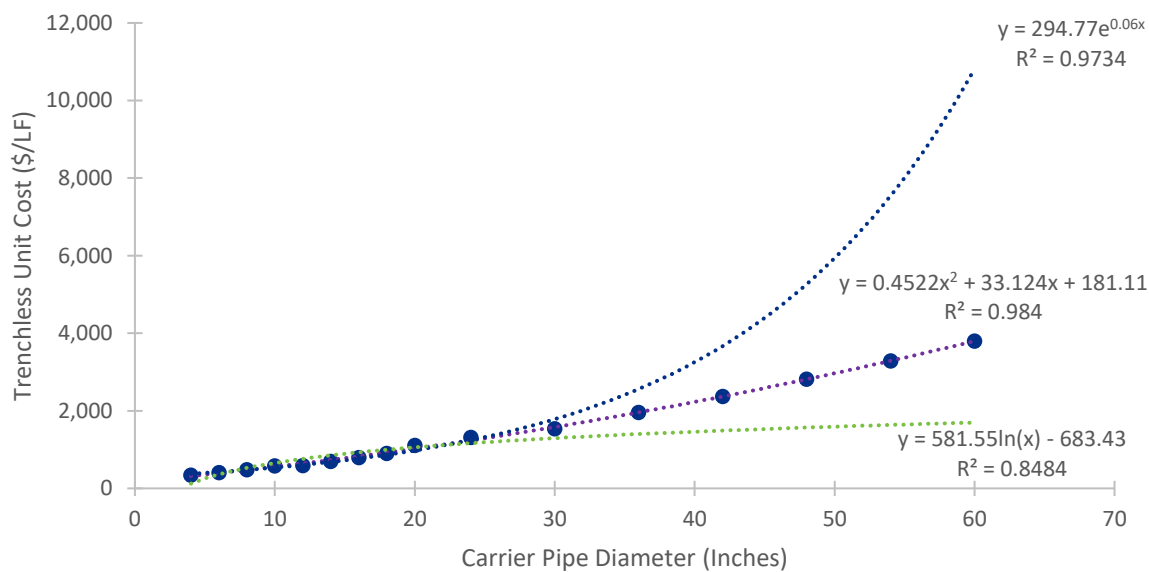


Figure I-1 Example of Different Trendlines for Finding Missing Data of a Line Item

I.1.3 Unpredictability

There is inherent unpredictability to consider during CIP development. This unpredictability is captured in the cost range that is provided for the overall CIP. Examples of unpredictability include future economic trends and inflation rates. Prior to COVID-19, a global pandemic, cost inflation tools provided high confidence for predicting unit prices within a given year. However, after COVID-19, these cost inflation tools may not prove to be as accurate.

I.1.4 Data Sources

Major sources for cost factors included city bid tabs and databases, past project data and contractor construction bid tabs, vendor quotes and cost estimates from CDM Smith's estimating department. A list of external sources that CDM Smith used to develop unit costs for the City's CIP water transmission and distribution cost estimates includes the following:

- City of Greeley Project Initiation Form (City of Greeley, 2021)
- Operation Rehab Project 2021 – 2025 Spreadsheet (City of Greeley, 2021)
- Water and Sewer Department 10 Year CIP 2021 – 2030 Spreadsheet (City of Greeley, 2021)
- Collection, Distributions, Transmission Projects Phase I – (CMAR) (City of Greeley, 2019)
- City of Greeley Pipe Rehabilitation Cost Estimating Template (City of Greeley, 2019)
- Keep Greeley Moving Phase 2 by Neighborhood 2023 – 2029 (City of Greeley, 2021)
- City of Aurora Wastewater Master Plan (AECOM, 2017)

The data was compiled in a single file with line item data reflected as unit costs (dollars per linear foot, dollars per each, etc.). When needed, unit costs for specific line items were calculated using trend line equations. Line items that were not specific or harder to estimate using specific unit cost quantity were reflected as a percentage addition to project costs (mobilization and demobilization, erosion control and stormwater pollution prevention, etc.).

The costs estimated for each project are in August 2020 dollars. Historical data was adjusted to the equivalent August 2020 data by using Engineering News Record's 20-City Construction Cost Index (ENR-CCI). ENR estimates a project each month in 20 different cities around the U.S. and calculates the composite index. Costs are adjusted by multiplying a cost element with the ratio of the current day 20-City ENR-CCI and date of data.

$$\text{Construction Unit Cost (T2)} = \text{Construction Cost (T1)} \times \frac{\text{CCI(T2)}}{\text{CCI(T1)}}$$

T2 and T1 reflect the desired projected year and month desired and the originally year and month of unit costs, respectively.

I.1.5 Major Cost Elements

NP water distribution system CIP costs were developed using five general cost element categories, as shown in **Figure I-2** and described below.

Construction Bid Cost

- Pipelines, Pump Stations & Ponds
- Major Crossings
- Land Considerations
- Dewatering
- Erosion Control
- Mobilization
- Contractor OH&P

Project Implementation

- Planning Studies
- Preliminary and Final Design
- Engineering Services during Construction

Additional Project Related Costs

- Significant Permitting (above typical)
- Outside Program Management
- Outside Construction Management

Figure I-2 CIP Categories for Cost Definition

Each of these cost elements is discussed in more detail in the following subsections. Unit priced line items, mobilization and demobilization, and stormwater pollution prevention and erosion control was rounded to the nearest whole dollar. Project contingency was rounded to the nearest \$10 and added to the OPCC subtotals to determine the OPCC project totals which were rounded to the nearest \$10,000. Subsequent costing factors were added to the OPCC project totals to determine CIP estimates used for high-level planning of water transmission and distribution, sewer, and NP master plans.

I.1.6 Pipeline, Pump Stations, & Ponds**Installation of Pipe**

NP water lines were generally assumed to be installed using open cut construction. Open cut construction is where contractors remove surface soils to insert pipe, except for arterial roadway and highway, railroad, irrigation ditch, river, and lake crossings. In such instances, trenchless pipe installation was assumed which inserts pipe through tunneling and boring, J&B, or horizontal direct drilling (HDD) methods. Open cut pipeline installation unit costs (in dollars per linear foot of pipe, \$/LF) include the pipe and bedding, excavation, installation including traffic control, tie-ins for service laterals, backfill, restoration, and flow and throttle control valves. Distribution pipelines were classified with pipe diameters up to 20 inch while transmission lines were classified with pipe diameters 24 inch and above.

The open cut installation was divided into developed and undeveloped categories. The developed category includes pipe installed in developed areas such as in neighborhoods, along major City streets, across two lane roads, through developed commercial property and designated agricultural land, and around City boundaries. The undeveloped category was assigned to pipe installed in permanent open space designated as city parks. It was assumed that all NP water lines were installed at less than 10 ft depth unless using trenchless installation for crossings.

Trenchless installation costs (in \$/LF of pipe) include the casing and carrier pipe, supports and grouting of the interstitial space, launching and receiving pits, and ground monitoring using J&B drilling or HDD. Unit prices were developed using bid tabs and CDM Smith's construction cost data base.

Table I-1 gives the unit cost breakdown for installation of NP water lines.

Table I-1 – Unit Costs for NP Lines

Pipe Diameter Size (In.)	Unit Cost (\$/LF of Pipe)			
	Undeveloped Land Designation	Developed Land Designation	Trenchless J&B (Crossings)	Trenchless HDD (River Crossings)
8	119	172	478	585
12	131	184	584	803
16	158	224	791	944
18	171	256	897	1,023
20	184	289	1,105	1,107
24	211	315	1,314	1,272
30	237	368	1,531	1,530
36	264	421	1,960	1,796
42	302	486	2,370	2,054
48	355	566	2,813	2,312
54	395	657	3,288	2,570
60	460	763	3,796	2,827

Pump Stations

Construction costs of new pump stations were developed using Chapter 29 of *Pumping Station Design, Revised 3rd Ed.* (Jones et al. 2006). High and low trend line estimates were averaged based on 2006 cost projections and then projected to the inflated August 2020 equivalents. The cost estimates only include construction of new pump station infrastructure including enclosures, wet wells, instrumentation, electrical, and pumps. The updated August 2020 high, low, and averaged pump station equations are shown below:

$$\text{Low Limit New PS Cost(\$)} = \$2,367 \times \text{PS Flow Rate (gpm)}^{0.77}$$

$$\text{High Limit New PS Cost(\$)} = \$33,648 \times \text{PS Flow Rate (gpm)}^{0.62}$$

$$\text{Averaged Limit New PS Cost(\$)} = \$15,844 \times \text{PS Flow Rate (gpm)}^{0.66}$$

Figure I-3 depicts the comparison of the three equations used for new pump station construction estimates. This master plan assumes all new pump stations costs using the averaged pump station equation.

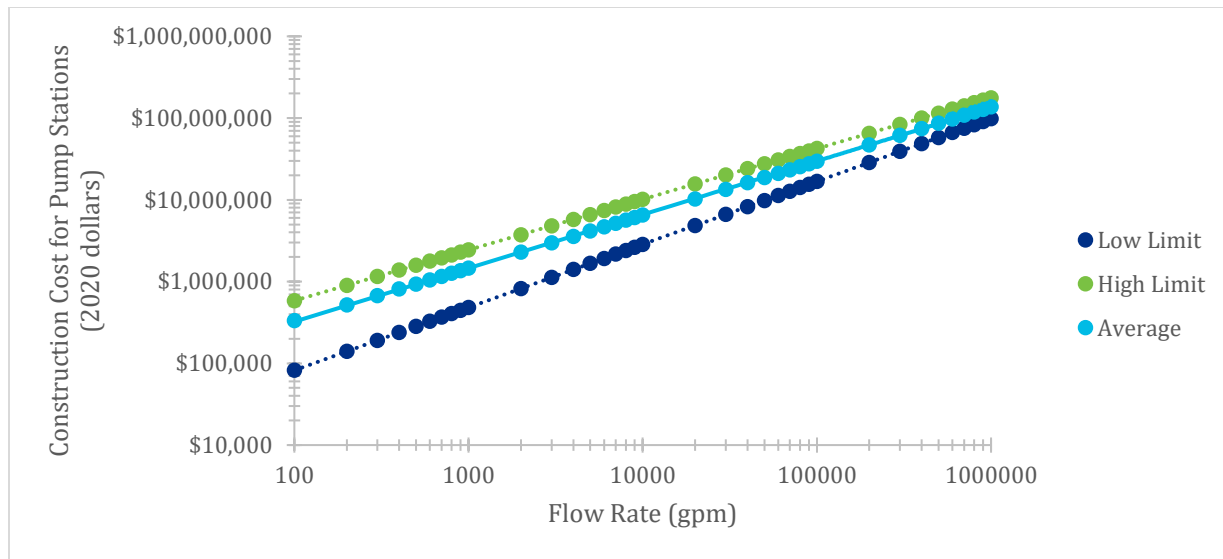


Figure I-3 Pump Station Design High, Low, and Averaged Estimated Construction Costs (Jones et al. 2006)

Ponds

Construction costs for either ponds to accommodate additional storage, or the installation of new ponds, assumed the installation cost of new ponds as a conservative estimate. Pond replacement and new pond installation in \$/AF included costs for pond excavation, subgrade, pond liners and fabric, covering of soil over lake bottom, rip rap, and aeration systems. Pond sizing (in AF) for each project was estimated on future buildout conditions identified in the future system model.

I.1.7 Crossings, Land Considerations, and Dewatering

Irrigation Ditch, River Crossings, and Lake Crossings

ArcMap GIS and City-provided information was used to identify irrigation ditch, river, and lake crossing locations. Irrigation ditch, river, and lake crossings were assumed as 100 ft in length, 250 ft in length, and estimated lake crossing length, respectively. Unit costs for irrigation ditch, river, and lake crossings were approximated by trenchless pipe installation, regardless of pipe depth, using J&B for ditch crossings and HDD drilling for river and lake crossings.

Utility, Roadway, and Railway Crossings

ArcMap GIS, the City's online GIS, and Google Maps were used to identify road, utility, and railroad crossings. Unit prices were developed assuming installation by J&B, where applicable, using the following assumptions:

- Roads were separated into typical (defined as: two to three lane roads located on side streets and in neighborhoods), arterial (defined as: major roadways of four lanes or more assumed at 200 ft wide), and highways (defined as: major roadways with Colorado Department of Transportation Right-of-way requirements at 250 ft wide). Widths were based on the U.S. Department of Transportation Federal Highway Administration (USDOT, 2014). Typical road crossings were included as part of overall open cut installation

described in **Section I.3.3**, while arterial road and highway crossings were accounted as a part of trenchless pipe installation costs described in **Section I.2.2**.

- Railway crossings were estimated as 150 ft in length included in trenchless installation costs, described in **Section I.2.2**.
- Other City and non-City utilities were not included as unit cost estimates but assumed to be covered under project contingency, described in **Section 5.3.5**.

Easements

Easement acquisition was assumed to be required for all new pipeline, not in a City right-of-way or on City-owned property. Easement acquisition was assumed as a costing factor multiplier of the total OPCC at 5%.

Dewatering

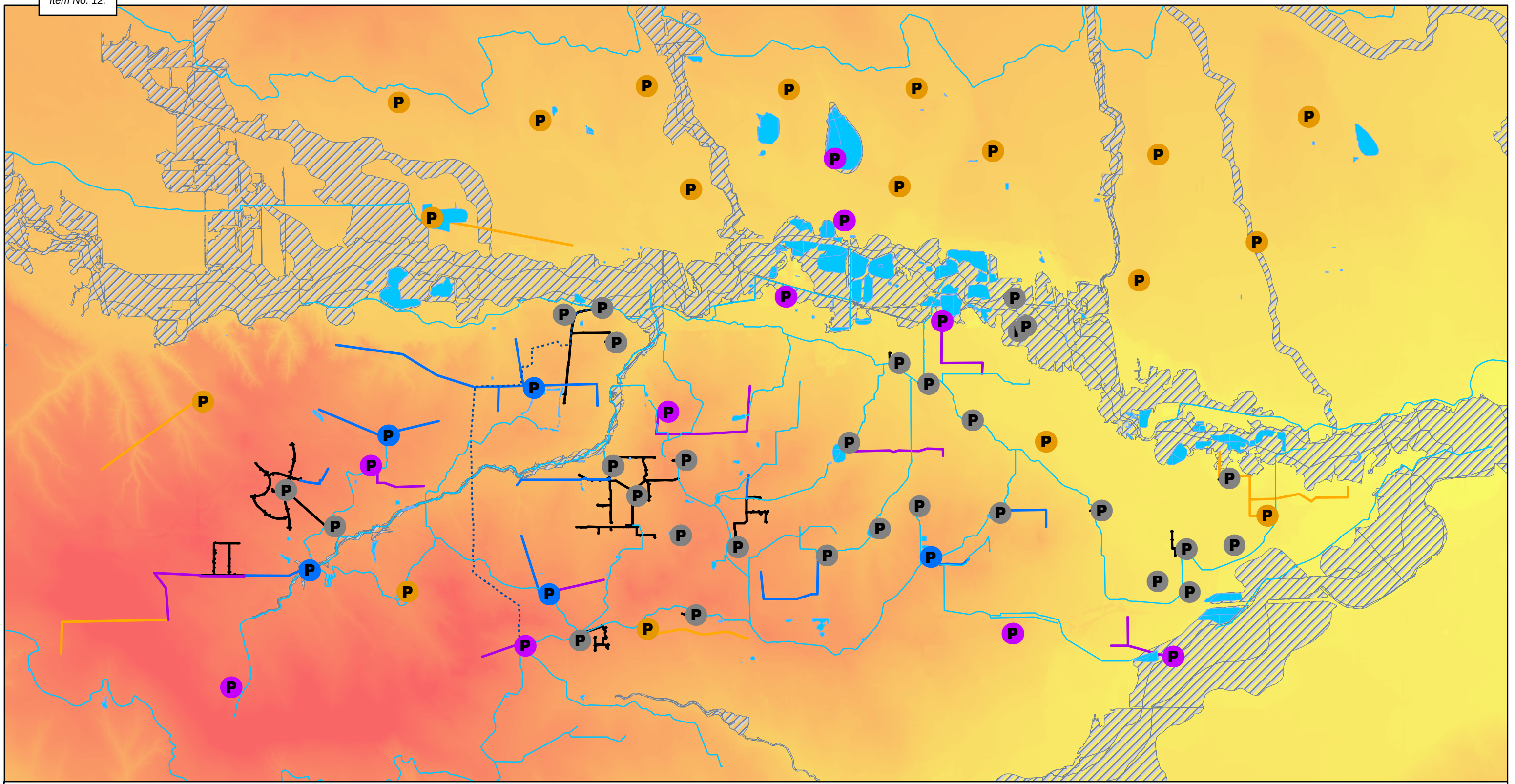
A three-tiered approach was used to determine projected dewatering. The three tiers used for unit cost estimation were developed considering land elevations in and around the City (between approximately 4,600 ft to 5,060 ft), 100-year floodplain maps, and proximity to irrigation ditches and water bodies. Tier 1 includes water distribution and transmission line construction within the 100-year floodplain or within 50 ft of an irrigation ditch, pond, or lake. Tier 2 includes pipe that is not in Tier 1, is below the median elevation of the City (4,828 ft), and is assumed to require 50% of the dewatering needed for Tier 1. Tier 3 includes pipe in areas above the median elevation and assumes no dewatering is required.

Figure I-4 illustrates the three-tiered dewatering profile. **Table I-2** lists the unit costs developed for the three-tiered dewatering categories in \$/LF of pipe.

Table I-2 – Unit Costs for Dewatering by Tier

Tier	Unit Cost (\$/LF of Pipe)
1	105
2	52.50
3	0

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City of Greeley
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CDM Smith
June 02, 2021

Legend

Tier 1

- 100-yr FloodPlain
- Lake
- Greeley Ditch

Tier 2

- 4828 ft
- 4596 ft

Tier 3

- 5059 ft
- 4828 ft

- Existing Pump Station
- 2025 Pump Station
- 2040 Pump Station
- Buildout Pump Station

- Existing NP Pipes
- 2025 Proposed NP Pipes
- 2040 Proposed NP Pipes
- Buildout Proposed NP Pipes
- Upper Equalizer Project

0 0.5 1 2 Miles



3-Tiered Dewatering Profile
Figure I-4
Greeley Non-Potable Water System Master Plan

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1.1.8 Project Implementation and Additional Project-Related Costs

Project elements considered part of project implementation as well as additional project related costs are difficult to quantify at the planning level. Construction elements include items such as erosion control and stormwater pollution prevention and contractor mobilization and demobilization. These costs are estimated as a percentage of the subtotal pipe, pump stations, ponds, and equipment. Contingency is applied to the subtotal of these construction cost elements to account for variations in unit prices or quantity estimates. Programmatic elements include engineering, permitting, legal and administration and are estimated as a percentage of the construction cost.

Table I-3 provides a breakdown of the different assumptions used for project implementation and contingency.

Table I-3 – Costing Factors for Construction Bid and Total CIP Project Costs

Category	Item	Costing Factor
Construction Bid Cost (includes infrastructure and contractor overhead, profit, bonds, and insurance)	Erosion Control/Stormwater Pollution Prevention ¹	2%
	Mobilization and Demobilization ¹	5%
	Contingency ²	35%
Project Implementation ³	Feasibility and Site Studies	9% for OPCC ≤ \$1M 6% for OPCC of \$1M to \$10 Mil. 5% for OPCC > \$10M
	Preliminary and Final Design	9% for OPCC ≤ \$1M 6% for OPCC of \$1M to \$10M 5% for OPCC > \$10M
	Engineering Services During Construction	5%
Additional Project-Related Costs ³	Outside Construction Management - not used if project value is < \$1M	5%
	Outside Project Management - not used if project value is < \$1M	3%

¹ Construction Bid Cost costing factors erosion control/stormwater pollution prevention and mobilization and demobilization are added to the subtotal of unit cost items.

² Contingency costing factor is 35% of the subtotal of the unit cost items and contractor born costs determined by costing factors.

³ Project Implementation and Additional Project-Related Cost categories are determined as a percentage of the construction cost and part of the total CIP project costs.

Project Erosion Control/Stormwater Pollution Prevention

The Project Erosion Control and Stormwater Pollution Prevention cost element includes the contractors cost to manage the stormwater during construction through best management practices. These best management practices include items such as silt fences, rock socks, vehicle tracking, and silt prevention at storm inlets. This category is assumed as 2% of the OPCC subtotal of the items that have unit costs and is based on estimator's judgement and prior reports. This costing factor is added to calculate project OPCC totals.

Mobilization and Demobilization

The Contractor Mobilization and Demobilization cost element includes the contractor's start-up costs and close-out costs. Start-up costs include items such as moving equipment and personnel to the project location, obtaining permits and bonds, etc. Close-out costs include items such as project cleanup, moving equipment and personnel from the project location, etc. The mobilization and demobilization category is assumed as 5% of the OPCC subtotal of the items that have unit costs and is based on estimator's judgement and prior reports. This costing factor is added to calculate project OPCC totals.

Contingency

During the planning phase, the field work and design have not yet been completed for the projects. Therefore, the cost development relies on estimated quantities for each construction element. Project contingency provides for these uncertainties by adding additional costs to the project total. The contingency at the planning level is typically 35% of the OPCC subtotal, after erosion control and stormwater pollution prevention and mobilization and demobilization costing factors have been included. Project contingency also provides for cost associated with items that are difficult to itemize at a planning level.

Feasibility and Site Studies

The Feasibility and Site Studies cost element includes the planning and field investigations (such as geotechnical, survey, ground sampling, utility locates, etc.) required to implement a project and is estimated as a percentage of the subtotal of the previous elements. The percentage varies based on the OPCC, plus cost contingency.

Preliminary and Final Design

The Preliminary and Final Design cost element includes the cost for engineering services to develop biddable plans and specifications in accordance with applicable standards. This cost is estimated using a percentage of the OPCC, plus cost contingency.

Engineering Services During Construction

The Engineering Services During Construction cost element includes a review of contractor submittals, requested changes, and design adjustments that may be required during construction. A flat percentage of the OPCC is used to estimate this cost element.

Additional Project-Related Costs

Outside construction and project management are estimated for projects that are not directly managed by the City. For purposes of this master plan, only projects in excess of \$1M were assigned these cost elements.

Appendix J

Annual Funding Requirements for City NP CIP Projects (2020 – 2043)

Annual funding requirements per identified City NP CIP project and fiscal year totals are shown in the following table. It was assumed that each project stage (planning, design, and construction) will take at least one year with the construction phase taking two, three, or four years if the total CIP cost for a project was greater than \$1 million, \$5 million, or \$10 million, respectively.

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Appendix J – Annual Funding Requirements for City NP CIP Projects (2020-2043)

W/S Expense		Planning Start Year	Design Start Year	Construction Start Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
Project Names																												
SA44 Centennial Park	2020	2021	2022	\$ 167,819	\$ 167,819	\$ 1,050,140	\$ 1,050,140	\$ 1,050,140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Boomerang Regional PS	2021	2021	2022	\$ -	\$ 21,239	\$ 66,637	\$ 66,637	\$ 66,637	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Boomerang Regional Phase 2	2021	2021	2022	\$ -	\$ 9,980	\$ 33,089	\$ 33,089	\$ 33,089	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Greeley West PS	2021	2022	2023	\$ -	\$ 296,110	\$ 1,855,015	\$ 1,855,015	\$ 1,855,015	\$ 1,855,015	\$ 1,855,015	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Upper Equalizer	2022	2023	2024	\$ -	\$ -	\$ 2,002,000	\$ 1,001,000	\$ 5,653,000	\$ 5,653,000	\$ 5,653,000	\$ 5,653,000	\$ 5,653,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tech Center Supply	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prom Park Exp	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA38 1st Ave Pond	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 244,011	\$ 133,243	\$ 1,251,763	\$ 1,251,763	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Twin Rivers Exp	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,607	\$ 298,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Monfort Exp	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 246,259	\$ 134,412	\$ 842,610	\$ 842,610	\$ 842,610	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA-25 Westgate Reg. Phase 1	2025	2026	2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA60 Lake Bluffs	2025	2026	2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,205	\$ 1,205	\$ 11,339	\$ 11,339	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA25 Westgate Reg. PS	2025	2026	2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 390,887	\$ 213,003	\$ 1,337,312	\$ 1,337,312	\$ 1,337,312	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA34 30st 17Ave	2027	2028	2029	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 92,599	\$ 92,599	\$ 871,972	\$ 871,972	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA4 35 Ave Ost	2028	2029	2030	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,457	\$ 13,457	\$ 117,747	\$ 117,747	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Boomerang Regional Phase 3	2028	2029	2030	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,654	\$ 21,654	\$ 74,100	\$ 74,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA3 35 Ave AA st	2029	2030	2031	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bittersweet Park Exp.	2029	2030	2031	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 82,245	\$ 82,245	\$ 774,669	\$ 774,669	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA35 44ave Fst	2030	2031	2032	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,980	\$ 7,980	\$ 74,909	\$ 74,909	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA36 59 ave 10st	2031	2032	2033	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 182,863	\$ 182,863	\$ 1,148,049	\$ 1,148,049	\$ 1,148,049	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA16 9save 16st	2034	2035	2036	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,365	\$ 17,365	\$ 59,391	\$ 59,391	\$ 59,391	\$ 59,391	\$ 59,391	\$ 59,391	\$ 59,391	\$ 59,391	\$ 59,391	\$ 59,391
SA14 Tech Cent Exp	2035	2036	2037	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA15 37st SH257	2036	2037	2038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA12 Cobblestone	2037	2038	2039	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Glenmere Park Exp	2037	2038	2039	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA25 Westgate Reg. Phase 2	2038	2039	2040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA42 23ave Cst	2039	2040	2041	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total				\$ 167,819	\$ 495,147	\$ 3,447,976	\$ 4,005,882	\$ 9,140,670	\$ 8,193,370	\$ 8,260,329	\$ 9,188,622	\$ 2,318,971	\$ 2,316,788	\$ 1,154,044	\$ 1,157,360	\$ 1,106,541	\$ 1,222,958	\$ 1,165,414	\$ 1,157,532	\$ 59,391	\$ 295,828	\$ 282,587	\$ 1,483,331	\$ 1,676,878	\$ 1,077,721	\$ 727,038	\$ 727,038	\$ 727,038
Parks																												
Project Names	Planning Start Year	Design Start Year	Construction Start Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	
SA44 Centennial Park	2020	2021	2022	\$ 66,361	\$ 66,361	\$ 415,257	\$ 415,257	\$ 415,257	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Boomerang Regional PS	2021	2021	2022	\$ -	\$ 66,595	\$ 208,945	\$ 208,945	\$ 208,945	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Boomerang Regional Phase 2	2021	2021	2022	\$ -	\$ 31,292	\$ 103,754	\$ 103,754	\$ 103,754	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Greeley West PS	2021	2022	2023	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Upper Equalizer	2022	2023	2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tech Center Supply	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prom Park Exp	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA38 1st Ave Pond	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Twin Rivers Exp	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Monfort Exp	2024	2025	2026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SA-25 Westgate Reg. Phase 1	2025	2026	2027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$																

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Appendix K

Comprehensive Plan Action Item List

The City adopted the *Imagine Greeley Comprehensive Plan* in 2018, which is a policy guide that provides framework for public and private growth and development decisions made by the City over the next ten to twenty years. As a part of the Comprehensive Plan, a list of recommended actions was identified in Section 5 to assist in implementation of this plan. A summary of action items addressed with the development of this NPMP to ensure implementation of the Comprehensive Plan is summarized in the following table.



INFRASTRUCTURE (IN)

IMPLEMENTATION ACTION	NON-POTABLE MASTERPLAN ACTION ITEM RESPONSE
Goal IN-1: Ensure developed areas in Greeley are served by adequate public facilities and services.	
IMP IN-1.1 Annually review and update the City's Adequate Public Facilities Area (APFA) concurrent with annual growth and development projections to assist in the planning and funding of municipal infrastructure to accommodate growth. Prepare maps depicting the boundaries of existing and budgeted service areas for infrastructure included in the APFA requirements.	While the NPMP does not review or update the APFA, it identifies the critical infrastructure needed to serve all major developable areas within the LREGA (Section 5) and the anticipated CIP cost (Section 6). This masterplan will assist in planning and funding of municipal infrastructure and determine the anticipated infrastructure to meet the APFA requirements.
IMP IN-1.2 Continue to support timely and effective development in the Long Range Expected Growth Area as it relates to 208 Wastewater planning and treatment. Where possible and practical, look for opportunities to share and/or coordinate such capital improvements with other jurisdictions to efficiently use public resources.	Not Applicable
IMP IN-1.3 Through the annual Population Growth and Projections and Capital Improvements Plan, identify the location for new fire stations, parks and other public facilities commensurate with the City's expected growth.	Not Applicable
IMP IN-1.4 Complete and implement a basin-wide study that addresses drainage improvements through larger, shared, facilities which could also achieve an attractive, functional community or regional park use.	Not Applicable
IMP IN-1.5 Evaluate existing capacity within established areas of the city to understand where investments in expanding infrastructure will be needed in order to support the type and/or intensity of development envisioned in the Land Use Guidance Map	This masterplan has evaluated existing infrastructure to confirm sufficient capacity with the existing conditions, with future development of infill and densification of parcels, and full buildout as envisioned by the Land Use Guidance Map.

IMPLEMENTATION ACTION	NON-POTABLE MASTERPLAN ACTION ITEM RESPONSE
IMP IN-1.6 Update existing functional master plans for infrastructure and services as needed to account for changes in land uses and intensities that result from the adoption of this Comprehensive Plan and completion of implementation actions.	This masterplan incorporates improvements made to the NP water distribution system from the most recent masterplan completed in 2004. This masterplan has incorporated recent land use applications, utilized the Comprehensive Plan to update land uses and anticipated densities, and addressed areas outside of the 20-year plan through guidance and coordination with the Planning department.
IMP IN-1.7 Develop functional master plans detailing the maintenance, operation, and expansion of infrastructure and public facilities where such documents do not currently exist.	Not Applicable
IMP IN-1.8 Consider the extension of water lines to serve larger groups of users and along primary roadways to provide non-potable water to landscaped medians and parkways.	Not Applicable

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Appendix L

Greeley Policy for Non-Potable Irrigation

[Final NP policy will be appended here when approved by the City.]



Item No. 12.

(IN)



INFRASTRUCTURE (IN)

IMPLEMENTATION ACTION	RESPONSIBILITY	TYPE	TIMEFRAME
Goal IN-1: Ensure developed areas in Greeley are served by adequate public facilities and services.			
IMP IN-1.1 Annually review and update the City's Adequate Public Facilities Area (APFA) concurrent with annual growth and development projections to assist in the planning and funding of municipal infrastructure to accommodate growth. Prepare maps depicting the boundaries of existing and budgeted service areas for infrastructure included in the APFA requirements.	Lead Community Development Partners Planning Commission Public Works Police Fire Water and Sewer Culture, Parks, and Recreation	Policies and Programs	Ongoing
IMP IN-1.2 Continue to support timely and effective development in the Long Range Expected Growth Area as it relates to 208 Wastewater planning and treatment. Where possible and practical, look for opportunities to share and/or coordinate such capital improvements with other jurisdictions to efficiently use public resources.	Lead Water and Sewer Partners Community Development	Policies and Programs	Ongoing
IMP IN-1.3 Through the annual Population Growth and Projections and Capital Improvements Plan, identify the location for new fire stations, parks and other public facilities commensurate with the City's expected growth.	Lead Community Development Partners Culture, Parks, and Recreation Police Department Fire Department	Policies and Programs	Ongoing
IMP IN-1.4 Complete and implement a basin-wide study that addresses drainage improvements through larger, shared, facilities which could also achieve an attractive, functional community or regional park use.	Lead Public Works Partners Culture, Parks, and Recreation	Plans	Near-Term



IMPLEMENTATION ACTION	RESPONSIBILITY	TYPE	TIMEFRAME
IMP IN-1.5 Evaluate existing capacity within established areas of the city to understand where investments in expanding infrastructure will be needed in order to support the type and/or intensity of development envisioned in the Land Use Guidance Map	Lead Water and Sewer Partners Public Works Culture, Parks, and Recreation Community Development	Policies and Programs	Near-Term
IMP IN-1.6 Update existing functional master plans for infrastructure and services as needed to account for changes in land uses and intensities that result from the adoption of this Comprehensive Plan and completion of implementation actions.	Lead All City Departments	Policies and Programs	Near-Term
IMP IN-1.7 Develop functional master plans detailing the maintenance, operation, and expansion of infrastructure and public facilities where such documents do not currently exist.	Lead All City Departments	Plans	Near-Term
IMP IN-1.8 Consider the extension of water lines to serve larger groups of users and along primary roadways to provide non-potable water to landscaped medians and parkways.	Lead Water and Sewer Partners Culture, Parks, and Recreation Community Development	Public Investments	Long-Term
Goal IN-2: Ensure the design, construction, and appearance of City infrastructure and facilities contributes to the character of the community.			
IMP IN-2.1 Evaluate current best practices in designing, developing, and constructing green infrastructure and incorporate appropriate practices into the City's approach to stormwater management.	Lead Public Works Partners Culture, Parks, and Recreation Community Development	Policies and Programs	Near-Term
IMP IN-2.2 Evaluate, and update as needed, existing design guidelines for infrastructure and public facilities to ensure aesthetics and considerations for the visual or quality of life impacts on surrounding neighborhoods are considered.	Lead Public Works Partners Water and Sewer Culture, Parks and Recreation Community Development	Regulatory Revisions	Long-Term

CITY OF GREELEY, COLORADO
ORDINANCE _____, 2021

AN ORDINANCE ADOPTING THE 2021 NON-POTABLE WATER MASTER PLAN AND AMENDING THE 2018 COMPREHENSIVE PLAN TO INCLUDE THE SAME BY REFERENCE

WHEREAS, the City of Greeley, Colorado ("City") is a home rule municipality empowered pursuant to Sections 1 and 6 of Article XX of the Colorado Constitution to, *inter alia*, construct, purchase, acquire, lease, add to, maintain, conduct, and operate water works and everything required therefor, within or without its territorial limits, for the use of the City; and

WHEREAS, Section 19-1 of the Greeley City Charter obligates City Council to adopt a comprehensive plan as a guide to land use and development; and

WHEREAS, on February 6, 2018, City Council adopted "Imagine Greeley: The City of Greeley Comprehensive Plan (2018)" (the "2018 Comprehensive Plan"); and

WHEREAS, from 2018 - 2021, the City, through it's the Water and Sewer Department and consultants, prepared a master plan for the City's non-potable water system; and

WHEREAS, The 2021 Non-Potable Water Master Plan (the "Plan") provides the backbone infrastructure required for long term growth of the City's non-potable water system. The planning documents are essential to ensure future development in the City has adequate public facilities and services; and

WHEREAS, the Plan address the 2018 Comprehensive Plan action plan items: IMP IN-1.2, IMP IN-1.5, IMP IN-1.6, IMP IN-1.7, and IMP-IN-1.8; and

WHEREAS, Section 17-7 of the Greeley City Charter requires that the Water and Sewer Board ("Board") recommend long rang plans to City Council for water and sanitary sewer improvements; and

WHEREAS, on September 15, 2021, City staff presented the Plan to the Board. By motion, the Board recommended that City Council adopt the Plan and incorporate the same by reference as an amendment to the 2018 Comprehensive Plan; and

WHEREAS, Section 19-1 of the Greeley City Charter describes the Planning Commission's role in providing advice on land use matters to City Council, and the 2018 Comprehensive Plan requires that the Planning Commission conduct a public hearing on any proposed amendment to the 2018 Comprehensive Plan, which includes a modification to policies contained within master plan adopted by reference, and provide a recommendation on the same to City Council; and

WHEREAS, on September 14, 2021, the Planning Commission held a public hearing on the Plan with an opportunity for public comment. By motion, the Planning Commission recommended that City Council adopt the Plan and incorporate the same by reference as an amendment to the 2018 Comprehensive Plan.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF GREELEY, COLORADO:

Section 1. That the 2021 Non-Potable Water Master Plan is accepted and approved as presented.

Section 2. That "Imagine Greeley: The City of Greeley Comprehensive Plan (2018)" is amended to include by reference the 2021 Non-Potable Water Master Plan.

Section 3. This Ordinance shall take effect on the fifth day following its final publication, as provided by Section 3-16 of the Greeley City Charter.

PASSED AND ADOPTED, SIGNED AND APPROVED ON THIS ____ DAY OF _____, 2021.

ATTEST

CITY OF GREELEY, COLORADO

City Clerk

Mayor



Non-Potable Water System Master Plan

October 5, 2021

Greeley City Council



**CDM
Smith**

Greeley Water: History, Heritage and Innovation

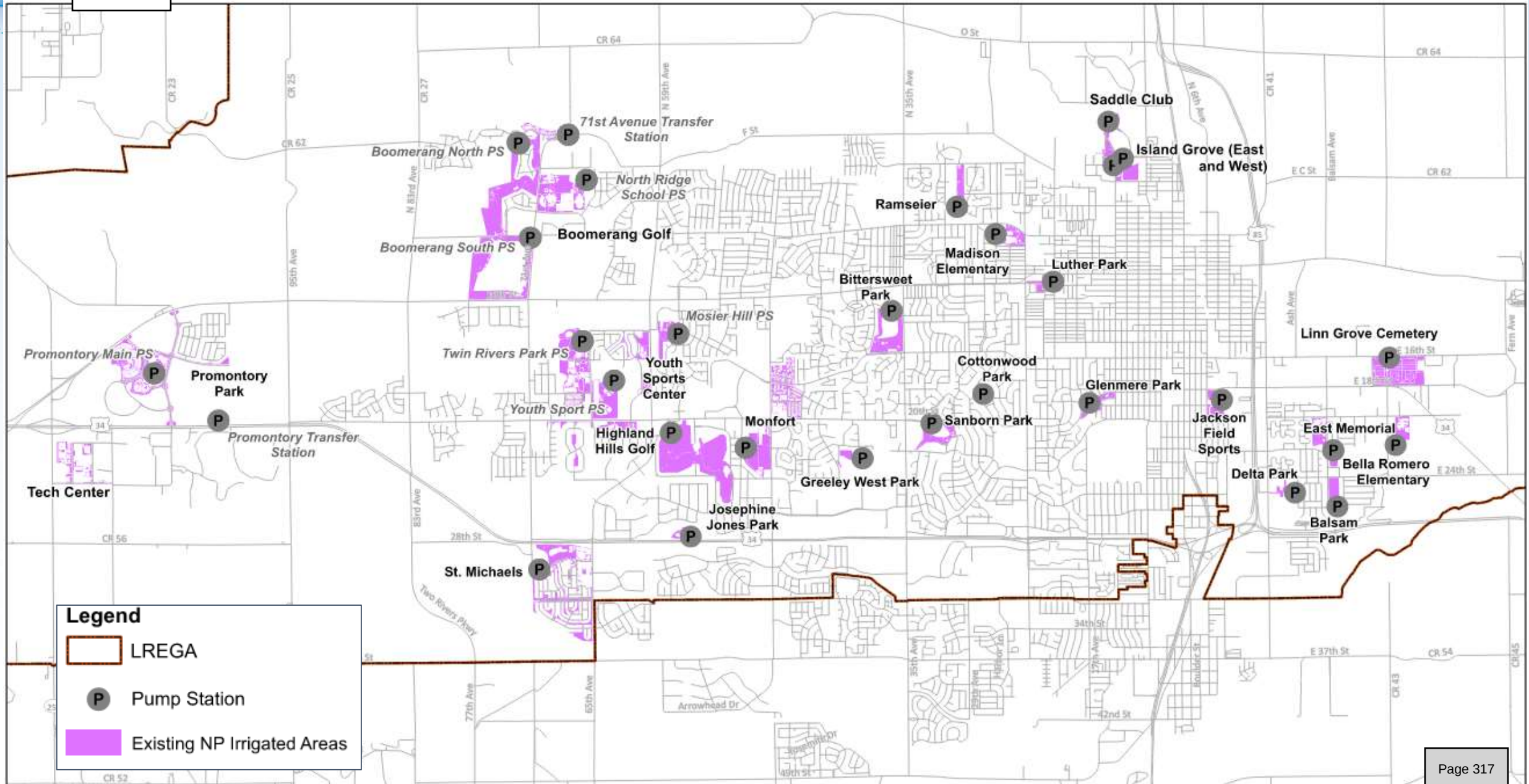
City Council Strategic Work Plan Priority No. 5:

- ☐ Implement a non-potable irrigation water system
 - Non-potable water is an essential component of the city's long range water resource plan
 - Philosophy, the right type of water for each type of use
 - Maximizing potable drinking water supplies and treatment capacity



Existing Non-Potable System

- Field inventory conducted to identify key infrastructure
- Typically, water goes from a ditch, into a pond, then pumped into the system
- System summary:
 - Over 37 pump stations and 10 wells
 - Maintains 90,000 feet of pipe
 - Over 100 customers
 - 24 unique service areas
- Stakeholder research confirmed that Greeley's system is unique and mature compared to other municipalities



Existing Water Sources for the Non-Potable Irrigation System

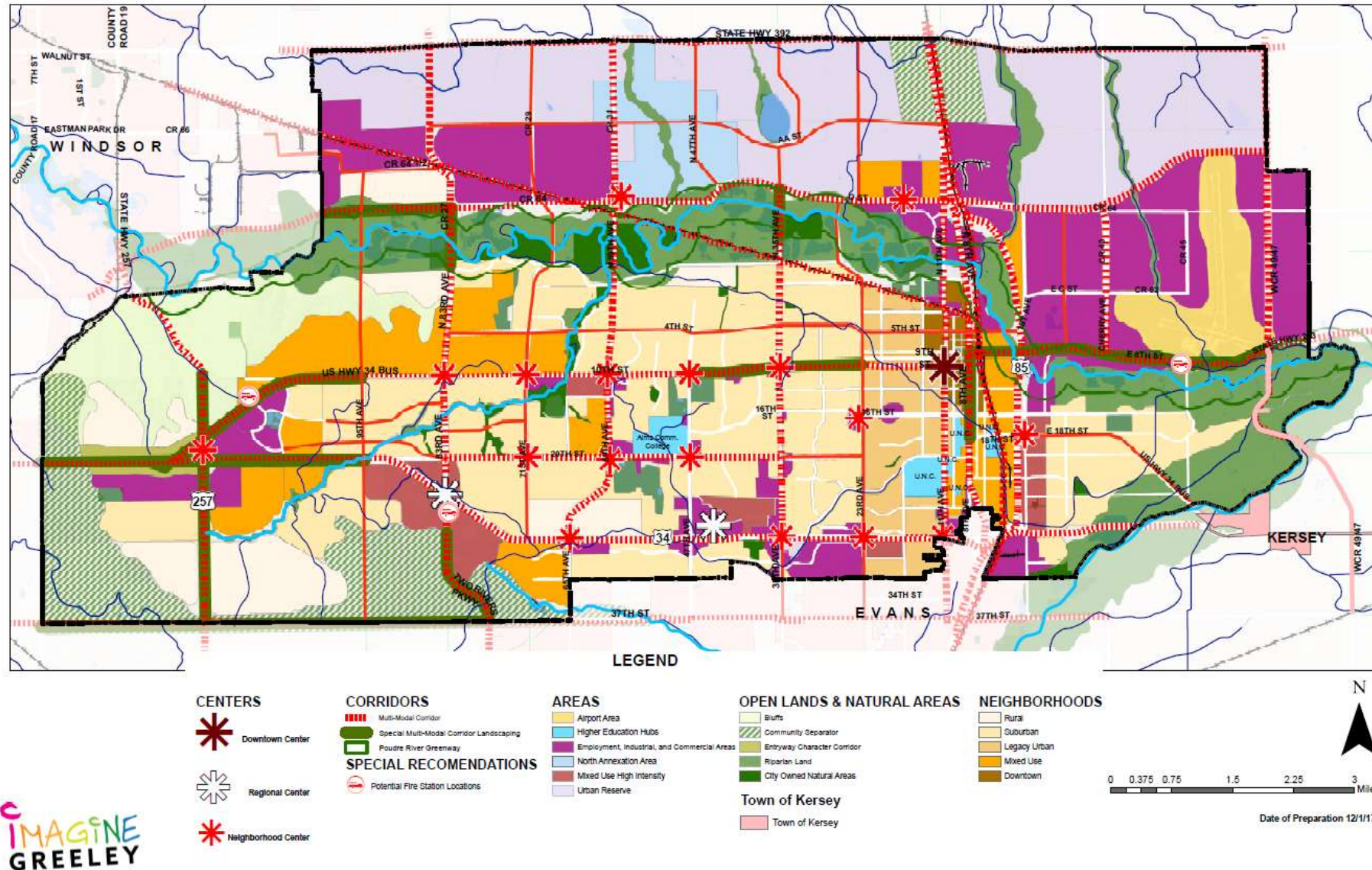
- The Greeley Irrigation Company (GIC) Ditch #3
 - Runs April through October.
- The Greeley Loveland Irrigation Company (GLIC) Ditch runs May through September.
 - Customers on the Greeley Loveland Irrigation Ditch are supplemented with potable water in April and October.
- Exchanged wholly-consumable wastewater effluent
 - Poudre Ponds
 - Augmented wells

Demands Development

Expanding the Non-Potable System Goals

- Reduce use of potable water for irrigation
 - Allows use of cheaper, untreatable water sources.
 - \$30,000+ for potable sources vs ~\$8,000 for non-potable sources
 - Frees up potable sources for use during droughts
 - Reduces potable water infrastructure expansion
- Increase non-potable use to over 10,000 AF per year
 - Current use: 2,500 AF per year

Comprehensive Plan – Land Use Guidance Map

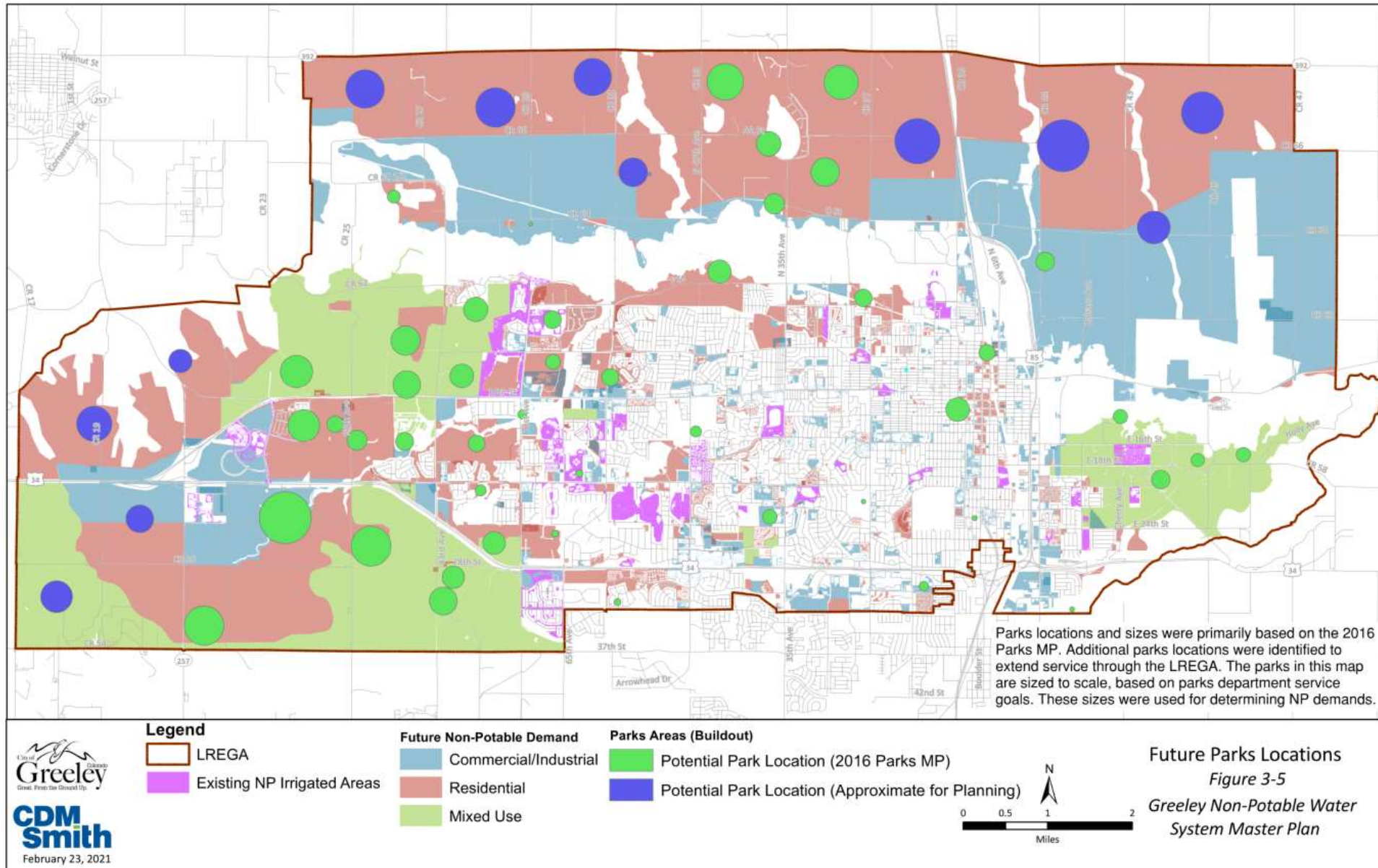


Peak Month Flow Factors and Adoption Rates

Category	Bulk Land Flow Factor gpd/ac	Irrigated Land Flow Factor gpd/ac	Adoption Rate
Park	1,600	3,500	90%
Commercial	1,300	3,200	20%
Multifamily HOA	1,500	4,400	15%
School	2,100	4,300	75%
Church	1,300	2,000	75%
I-L	500	NA	20%
I-M	125	NA	20%
R-L	1,200	4,700	20%
Residential (R-M)	900	5,200	20%
R-E	80	NA	15%

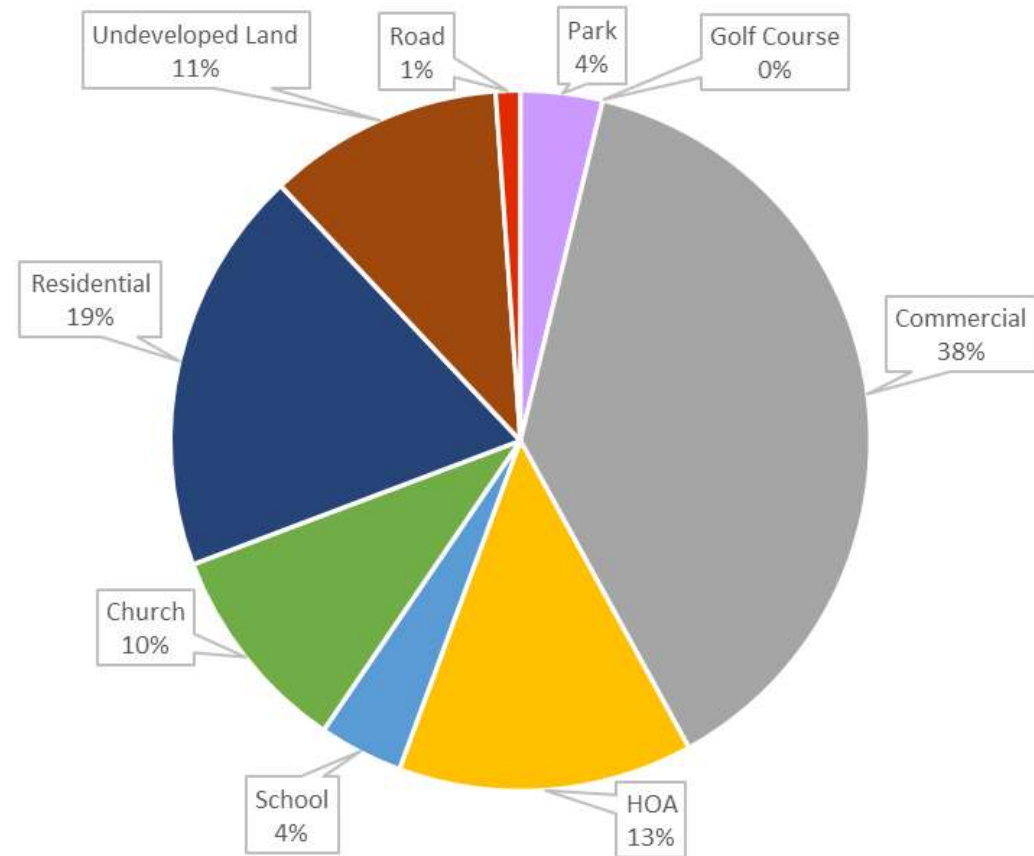
Note: Future adoption rates highly dependent on policy decisions

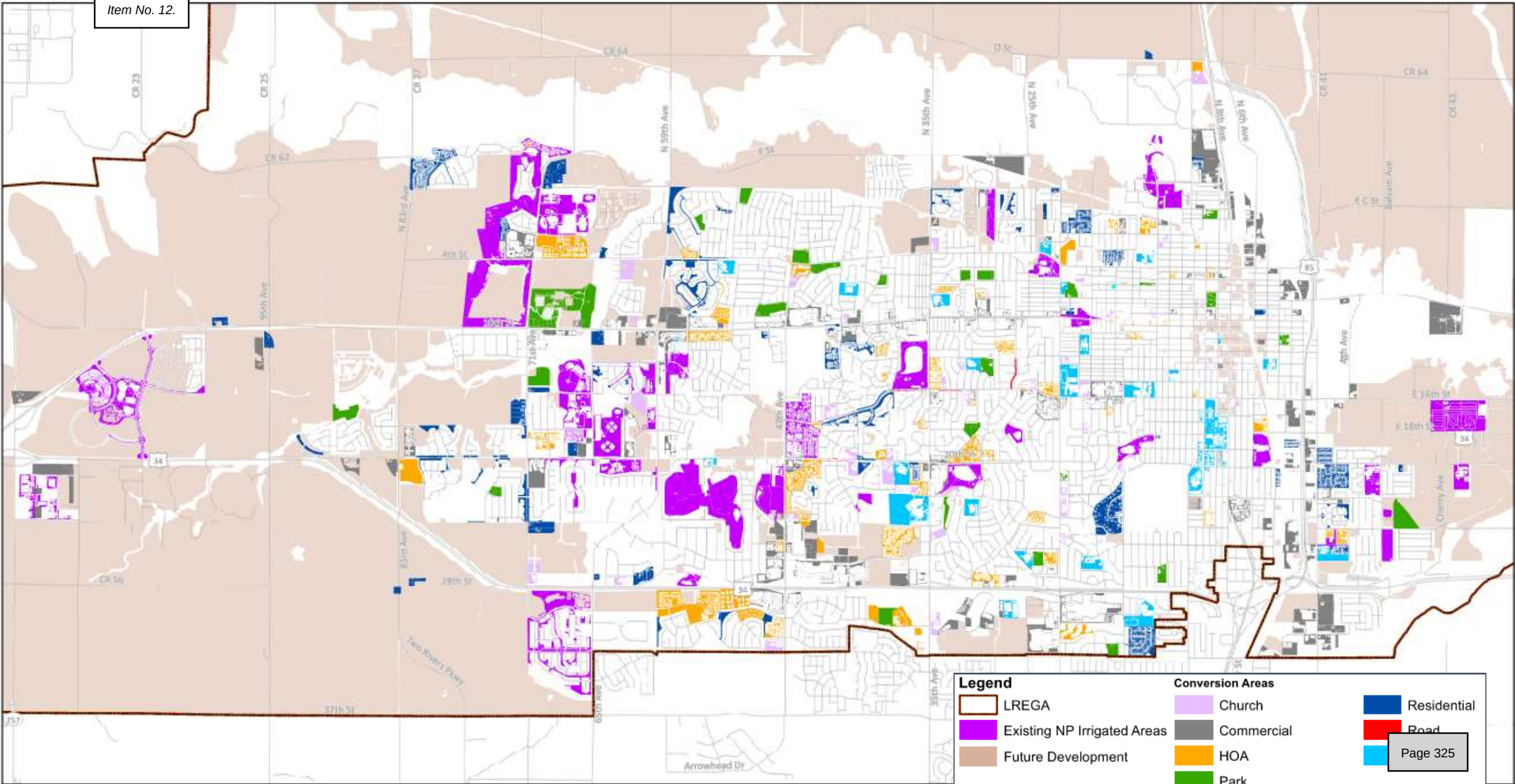
Future Non-Potable Sites



Conversion Areas

- **Potential** areas identified for conversion to non-potable irrigation
 - Over 400 locations at roughly 2,280 acres
- Applied irrigated area flow factors & adoption rates to calculate total demands
- Conversion areas from Potable to non-potable is 2.3 MGD





Legend		Conversion Areas			
	LREGA		Church		Residential
	Existing NP Irrigated Areas		Commercial		Road
	Future Development		HOA		Page 325
			Park		

Demands Summary

- Existing non-potable demand is 6.3% of total water demand (AFY)
- Future development non-potable demand is 15.5% of total
- Projecting that at buildout, non-potable will be 11.1% of total

Development Type	Total Water Demand MGD (AFY)	Potable Water Demand MGD (AFY)	Non-Potable Water Demand, MGD (AFY)
Existing Demand	47.3 (30,500)	46.0 (28,600)	1.3 (1,900)
Future Development (Buildout)	56.4 (33,500)	47.2 (29,300)	9.2 (4,200)
Potable to NP Conversion	2.3 (0)	0 (-1,000)	2.3 (1,000)
Total	106.8 (64,000)	93.2 (56,900)	12.8 (7,100)

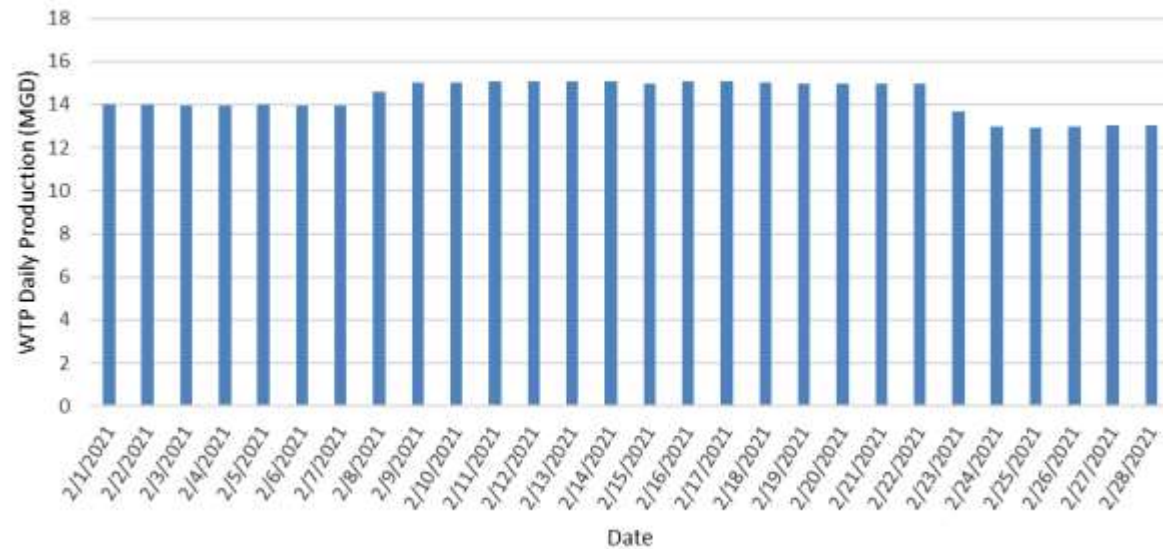
MGD is peak month, AFY is annual total

**Note: Future non-potable usage
highly dependent on policy decisions**

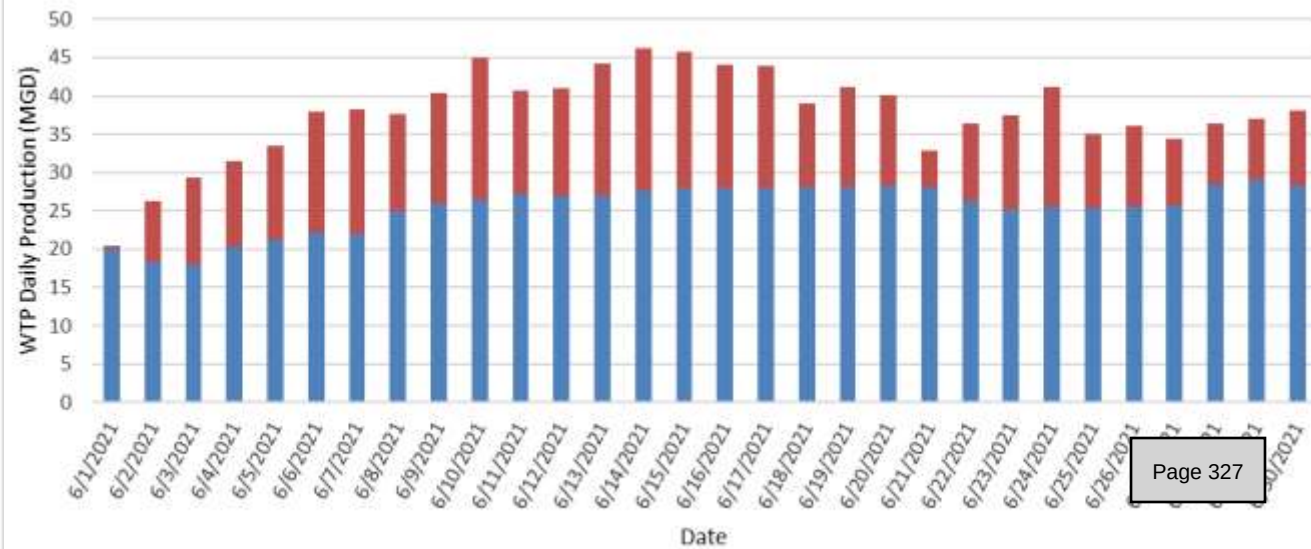
WTP Water Production Comparison

- Base potable demand ≈ 14 MGD
- Summer peak potable demand ≈ 46 MGD
- Irrigation Demand range 0-32 MGD

Feb. 2021 WTP Production (MGD)

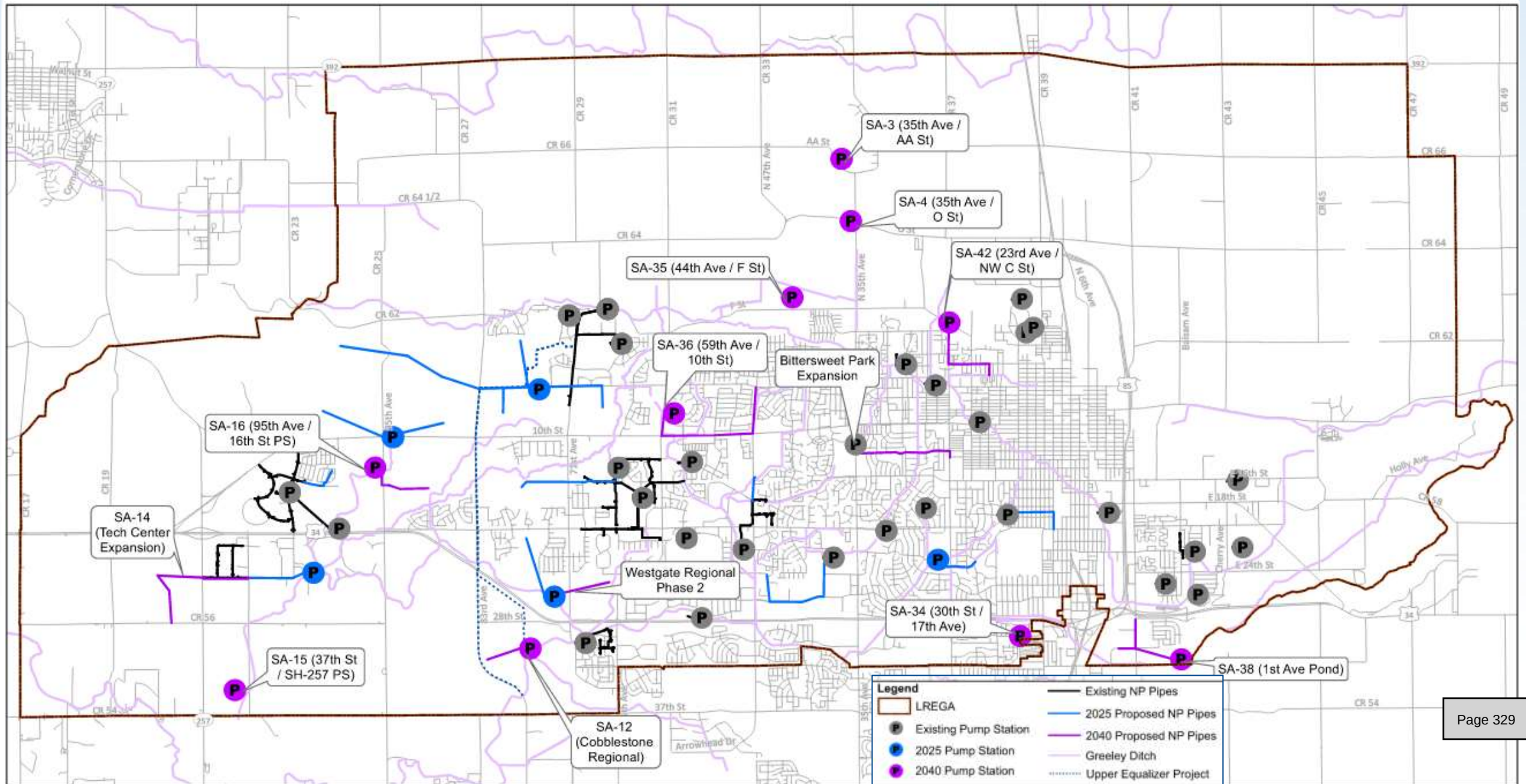


June 2021 WTP Production (MGD)

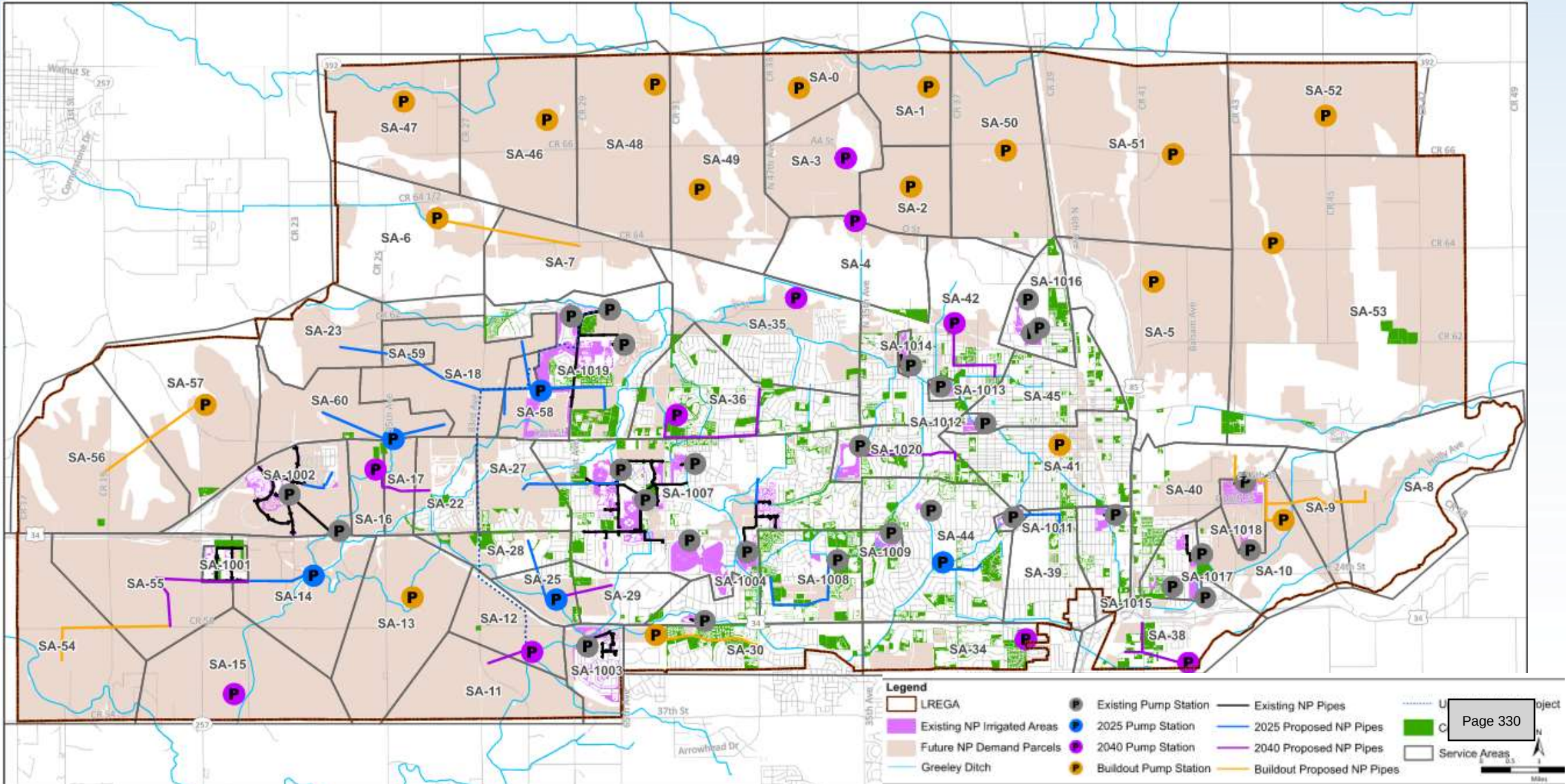


Capital Improvements Plan

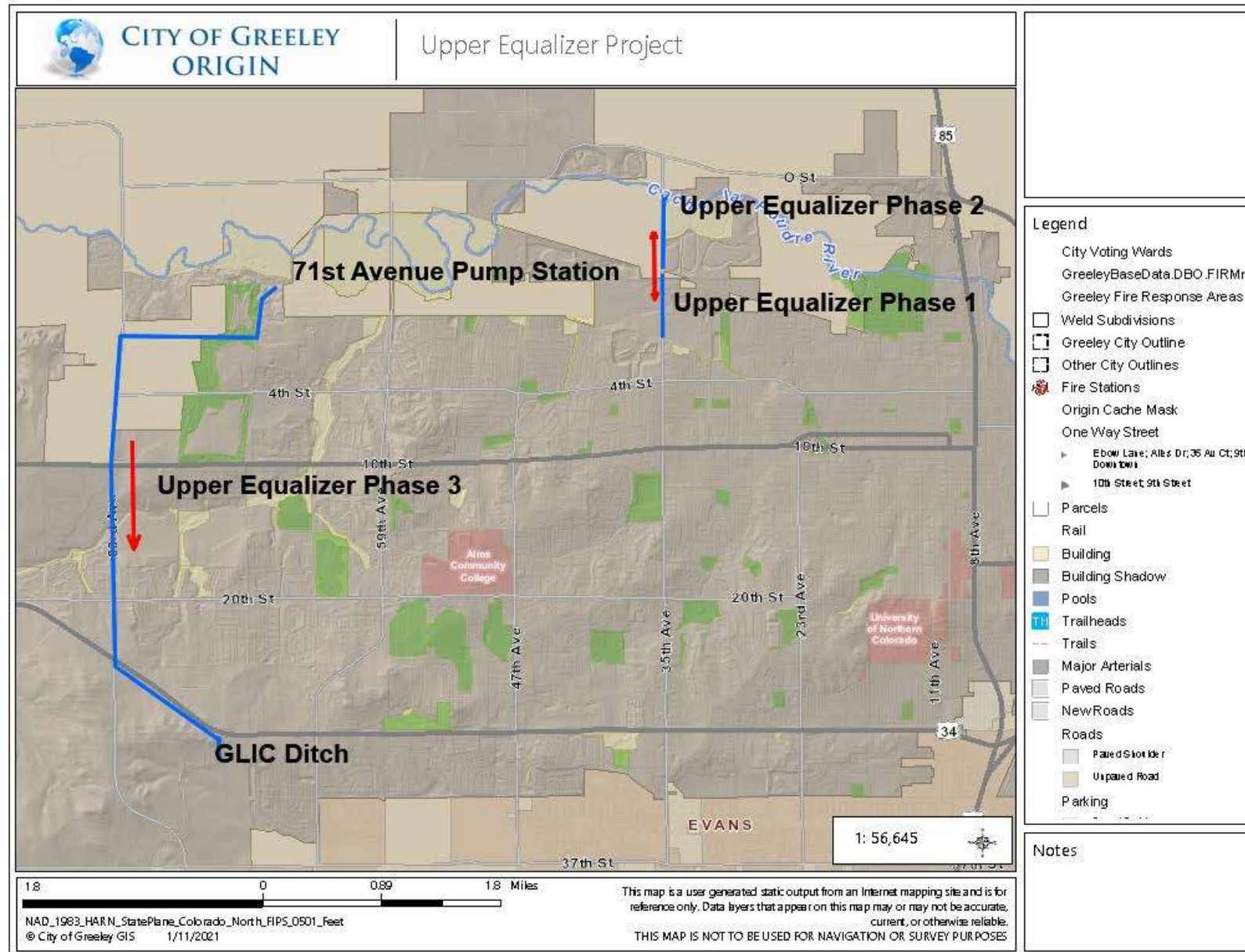
Recommended Improvements: 20-Year



Recommended Capital Improvements: Build Out

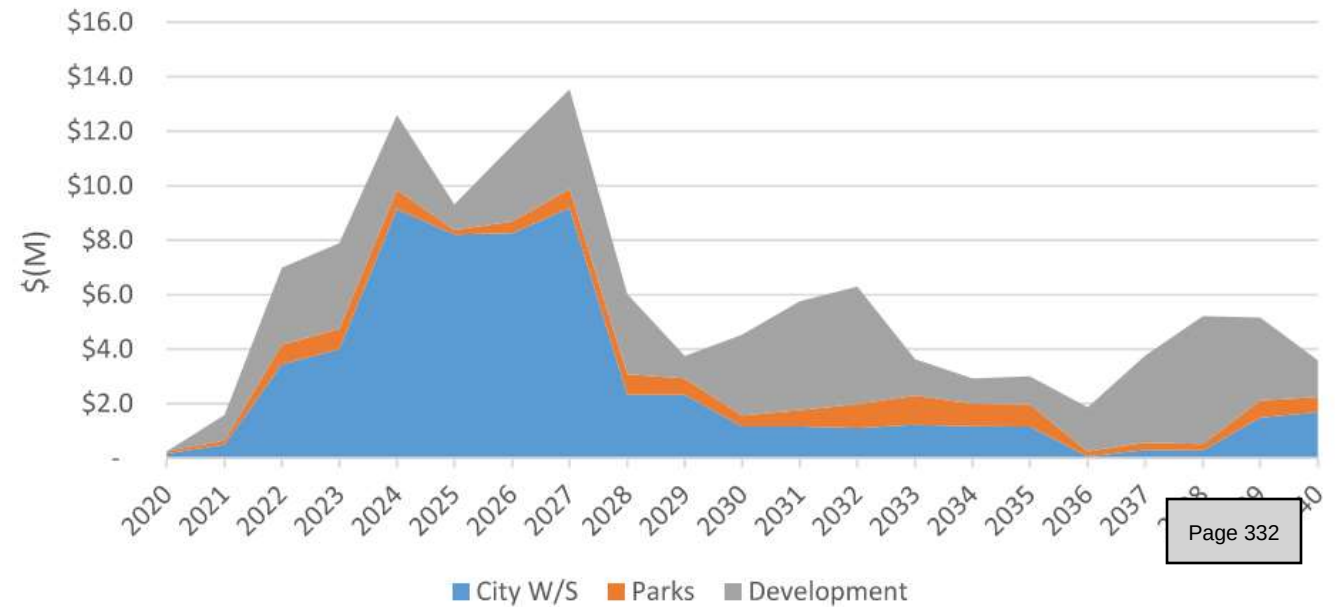
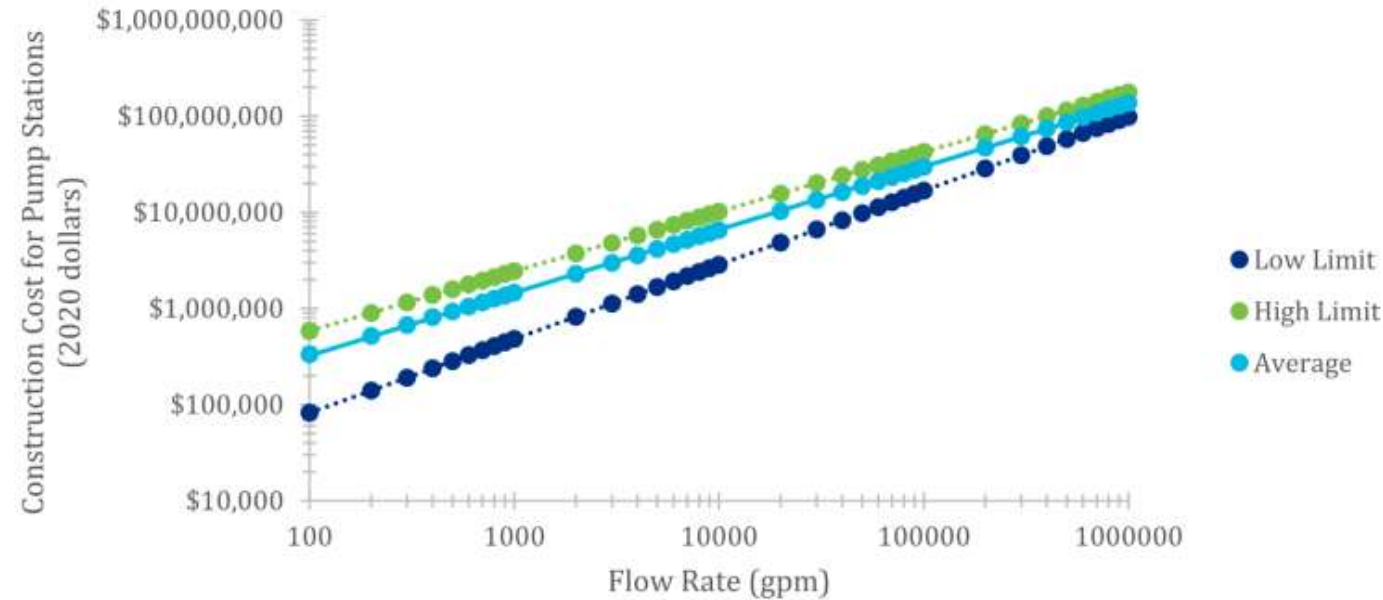


Upper Equalizer Project

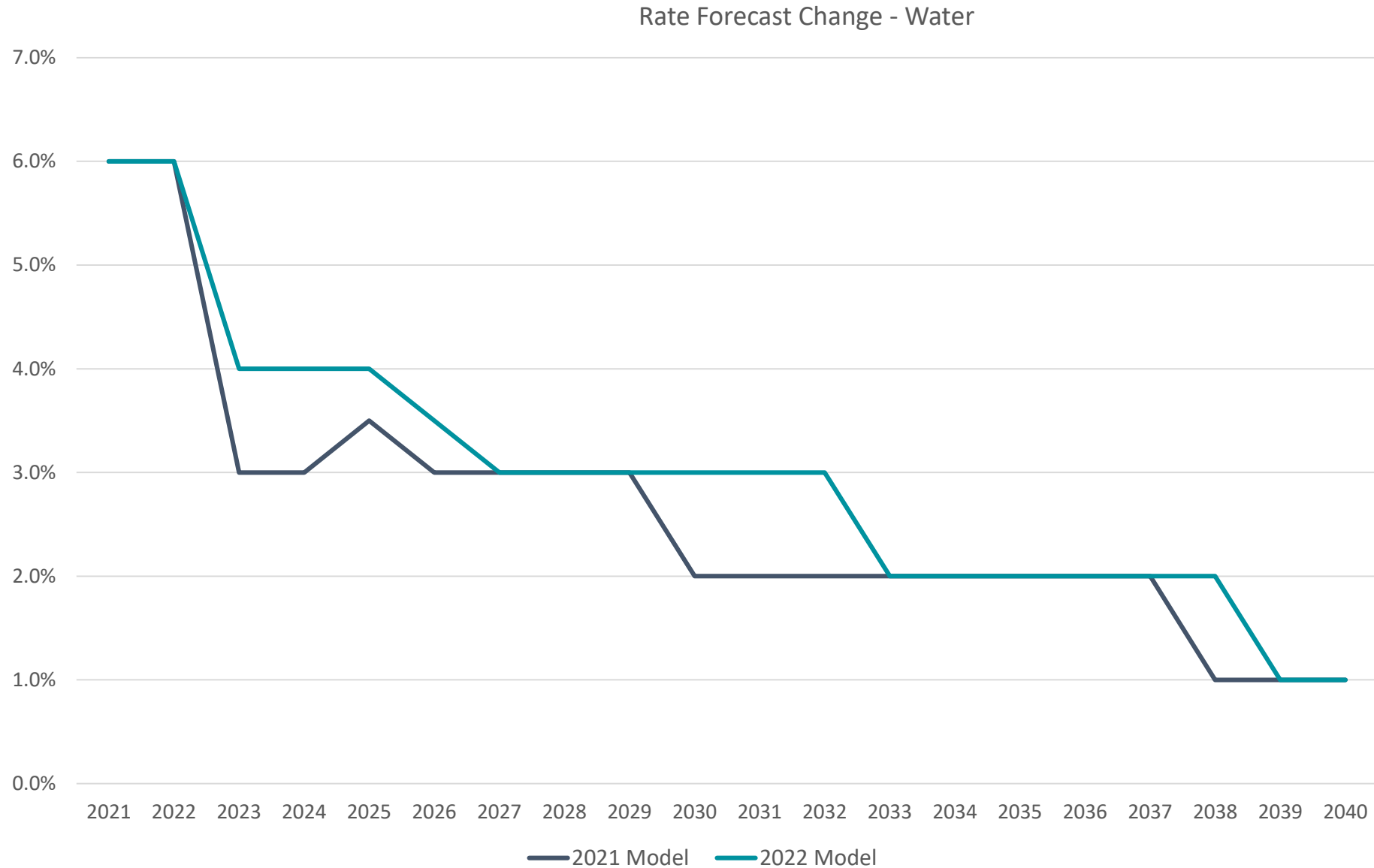


Non-Potable CIP

- 20 year projection - \$150 million
 - Not sustainable
- Backbone infrastructure and projected City contributions
- Proposed \$5 million per year for NP system expansion



Annual Water/NP Funding Projections



Finding and Recommendations

Key Recommendations

- Continue using a hub-and-spoke approach for future NP systems
- Require NP infrastructure even if a PS is not yet constructed
- Conduct detailed evaluations of demands and PS sizing during design
- Improve operational practices, such as lengthening watering windows
 - Allows expansion of system without infrastructure upgrades
- Require SCADA at all new or rebuilt pump stations
- Create plans for data collection and formal record-keeping
- Complete the recommended CIP projects
- Finalize NP policy to encourage adoption

Stakeholder/Community Engagement

Key Takeaways from Stakeholder Meetings

- Meetings held with other stakeholders:
 - Westminster
 - Denver Water
 - Evans
 - Windsor
- Greeley's non-potable system is unique and advanced (especially for raw water)
- Encouraging non-potable adoption is a challenge; most communities focus on larger users only
- Limited opportunities for collaboration with nearby communities
- Regional interest in non-potable is generally growing

Community Engagement

- Community engagement with engineers, planners, developers, and citizens
- Community engagement efforts included:
 - Virtual meeting to introduce MP and development work completed
 - Participants reviewed draft MP and provided comments
 - Follow up virtual meeting was held to discuss comments and responses
- Builders, Realtors, and Developers Roundtable on July 19th, 2021

Recommendations

- Recommended from City staff & CDM Smith
- Public Hearing, recommendation, approval from Planning Commission – Sept. 14th
- Recommendation & approval from Water & Sewer Board – Sept. 15th

Questions?

Council Agenda Summary

October 5, 2021

Key Staff Contact: Darrell Gesick, Planner III, 970-350-9822

Becky Safarik, Interim Community Development Director,
970-350-9786

Title:

Introduction and first reading of an ordinance changing the official zoning map of the City of Greeley, Colorado, from I-H (Industrial High Intensity), I-M (Industrial Medium Intensity) and C-D (Conservation District) to I-M (Industrial Medium Intensity for approximately 25.759 acres of property located at 300 E. 8th Street known as the City of Greeley Wastewater Treatment Facility Rezone

Summary:

The City of Greeley is considering a request by the City of Greeley Water and Sewer Department to rezone approximately 25.759 acres from the C-D (Conservation District), I-M (Industrial Medium Intensity) and I-H (Industrial High Intensity) Zone District to the I-M (Industrial Medium Intensity) Zone District.

The site was developed in the early 1930s with a City of Greeley wastewater treatment facility. Over the years improvements have been made and it is anticipated that additional improvements would need to be made to keep the facility up to state and federal standards.

The site was zoned Conservation District consistent with its status in the regulatory floodway of the Cache la Poudre River and, as such, carries several development restrictions. In 2015, the Federal Emergency Management Agency (FEMA) adopted new floodplain and floodway regulations for the Cache la Poudre Floodway. The City Council approved a Digital Flood Insurance Rate Map (DFIRM) on January 5, 2016, which modified the City's official floodplain overlay. In accordance with the revised floodplain map, a majority of the area requested for the rezone was removed from the floodway boundaries. Now that the majority of the property is out of the floodway, the applicant would like to have the site rezoned to provide site development flexibility.

The Planning Commission will consider this request on September 28, 2021.

Fiscal Impact:

Does this item create a fiscal impact on the City of Greeley?	No
If yes, what is the initial, or, onetime impact?	
What is the annual impact?	
What fund of the City will provide Funding?	
What is the source of revenue within the fund?	
Is there grant funding for this item?	N/A

If yes, does this grant require a match?	
Is this grant onetime or ongoing?	
Additional Comments:	

Legal Issues:

Consideration of this matter is a quasi-judicial process.

Other Issues and Considerations:

None noted.

Strategic Work Program Item or Applicable Council Priority and Goal:

Consistency with Comprehensive Plan and Development Code standards.

Decision Options:

- 1) Introduce the ordinance as presented; or
- 2) Amend the ordinance and introduce as amended; or
- 3) Deny the ordinance; or
- 4) Continue consideration of the ordinance to a date certain.

Council's Recommended Action:

A motion to introduce the ordinance and schedule the public hearing and final reading for October 19, 2021.

Attachments:

Ordinance

Vicinity Map

Planning Commission Summary (Staff Report) (September 28, 2021)

CITY OF GREELEY, COLORADO

ORDINANCE NO. _____, 2021

CASE NO. ZON2021-0001

AN ORDINANCE CHANGING THE OFFICIAL ZONING MAP OF THE CITY OF GREELEY, COLORADO, FROM I-H (INDUSTRIAL HIGH INTENSITY), I-M (INDUSTRIAL MEDIUM INTENSITY) AND C-D (CONSERVATION DISTRICT) TO I-M (INDUSTRIAL MEDIUM INTENSITY FOR APPROXIMATELY 25.759 ACRES OF PROPERTY LOCATED AT 300 E. 8TH STREET KNOWN AS THE CITY OF GREELEY WASTEWATER TREATMENT FACILITY REZONE

BE IT ORDAINED BY THE CITY COUNCIL OF GREELEY, COLORADO:

Section 1. The following described property located in the City of Greeley is hereby changed from the zoning district referred to as I-H (Industrial High Intensity), I-M (Industrial Medium Intensity) and C-D (Conservation District) to I-M (Industrial Medium Intensity for approximately 25.759 acres of property in the City of Greeley, County of Weld, State of Colorado:

See attached legal description

Section 2. The boundaries of the pertinent zoning districts as shown on the official zoning map are hereby changed so as to accomplish the above-described zoning changes, and the Mayor and City Clerk are hereby authorized and directed to sign and attest an entry which shall be made on the official zoning map to reflect this change.

Section 3. This ordinance shall become effective five (5) days after its final publication as provided by the Greeley City Charter.

PASSED AND ADOPTED, SIGNED AND APPROVED, THIS _____ DAY OF _____, 2021.

ATTEST:

THE CITY OF GREELEY

City Clerk

Mayor

A parcel of land, being part of Lots 1, 2, 3 and 4 of the Southwest Quarter of the Southwest Quarter (SW1/4 SW1/4) of Section Four (4), part of Lot 3 of the Northwest Quarter of the Southwest Quarter (NW1/4 SW1/4) of said Section 4, part of Lot 1 of the Southeast Quarter (SE1/4) of Section Five (5) and part of Lot 4 of the Northwest Quarter of the Northwest Quarter (NW1/4 NW1/4) of Section Nine (9), all in Township Five North (T.5N.), Range Sixty-five West (R.65W.) and in accordance with the subdivision of lands by the Union Colony of Colorado as shown on the map recorded April 17, 1891 in Book 2 at Page 41, as Reception No. 39743 of the records of the Weld County Clerk and Recorder, part of Blocks 126, 133 and 134, 1st Avenue, 10th Street and 11th Street, all of the City of Greeley, and all of Lot 1, Minor Subdivision No. 0961-4-3-MS-8, recorded October 19, 1972 as Reception No. 1599948 of the records of the Weld County Clerk and Recorder, said parcel of land located in the West Half of the Southwest Quarter (W1/2 SW1/4) of said Section 4, the Southeast Quarter of the Southeast Quarter (SE1/4 SE1/4) of said Section 5, the Northeast Quarter of the Northeast Quarter (NE1/4 NE1/4) of Section Eight (8) and the Northwest Quarter of the Northwest Quarter (NW1/4 NW1/4) of said Section 9, all in Township Five North (T.5N.), Range Sixty-five West (R.65W.) of the Sixth Principal Meridian (6th P.M.), City of Greeley, County of Weld, State of Colorado, and being more particularly described as follows:

COMMENCING at the Southwest corner of said Section 4 and assuming the West line of the Southwest Quarter (SW1/4) of said Section 4, being monumentalized by a #6 rebar with a 2 ½" diameter aluminum cap stamped "LS28285, 2013" in a monument box at the South end and by a #6 rebar with a 2 ½" diameter aluminum cap stamped "LS28285, 2013" at the North end, as bearing North 00°22'27" West being a Grid Bearing of the Colorado State Plane Coordinate System, North Zone, North American Datum 1983/2011, a distance of 2693.79 feet, with all other bearings contained herein relative thereto;

THENCE South 89°16'01" East along the South line of the Southwest Quarter of the Southwest Quarter (SW1/4 SW1/4) of said Section 4, being monumentalized by a #5 rebar with a 2" diameter aluminum cap stamped "LS25372, 1991" in a monument box at the East end, a distance of 30.01 feet to the West line of Lot 1, Ash Minor Subdivision, recorded July 30, 2012 as Reception No. 3862189 of the records of the Weld County Clerk and Recorder, said point being the POINT OF BEGINNING;

THENCE South 00°23'43" East along the West line of said Lot 1 a distance of 199.89 feet to the Easterly extension of the South line of the North Half (N1/2) of said Block 134;

THENCE South 89°58'24" West along said Easterly extension and along the South line of the North Half (N1/2) of said Block 134 a distance of 229.83 feet to an Easterly Right-of-way line of US Highway 85;

The following Seven (7) courses and distances are along Easterly Right-of-way lines of said US Highway 85:

THENCE North 13°48'48" East a distance of 324.32 feet;

THENCE North 08°10'05" East a distance of 35.00 feet;

THENCE North 02°28'52" East a distance of 451.37 feet;

THENCE North 00°15'44" West a distance of 128.70 feet;

THENCE South 86°03'29" East a distance of 24.65 feet;

THENCE North 00°15'44" West a distance of 212.20 feet;

THENCE North 17°11'31" East a distance of 499.47 feet to a Southerly Right-of-way line of State Highway 263, also known as East 8th Street, established by that Special Warranty Deed recorded

56 in Book 1450 at Page 128, as Reception No. 1230147, of the records of the Weld County Clerk and Recorder;

The following Two (2) courses and distances are along Southerly Right-of-way lines of said State Highway 263, also known as East 8th Street:

THENCE North 86°30'06" East a distance of 171.61 feet to a Point of Curvature (PC);

THENCE along the arc of a curve, which is concave to the North, a distance of 379.53 feet to the Northeast corner of Lot 1, said Minor Subdivision No. 0961-4-3-MS-8, said curve having a radius of 7680.00 feet, a central angle of 02°49'53" and a long chord bearing North 85°05'09" East a distance of 379.49 feet;

THENCE South 05°23'00" East along the East line of Lot 1, said Minor Subdivision No. 0961-4-3-MS-8, a distance of 208.42 feet to the Southeast corner of Lot 1, said Minor Subdivision No. 0961-4-3-MS-8, also being the Southwest corner of Lot 2, said Minor Subdivision No. 0961-4-3-MS-8, said point being the beginning point of a curve, said curve being non-tangent to aforesaid line.

THENCE along the Southerly line of Lot 2, said Minor Subdivision No. 0961-4-3-MS-8, also being along the arc of said curve, a distance of 126.62 feet to the Northwest corner of Lot 3, said Ash Minor Subdivision, said curve having a radius of 8461.08 feet, a central angle of 00°51'27" and a long chord bearing North 83°14'02" East a distance of 126.62 feet;

THENCE South 01°23'46" West, non-tangent to aforesaid curve and along the West lines of Lot 3, Lot 2 and Outlot A, said Ash Minor Subdivision a distance of 1063.68 feet;

The following Four (4) courses and distances are along Northerly lines of said Outlot A:

THENCE South 69°06'55" West a distance of 93.34 feet;

THENCE North 41°25'56" West a distance of 211.65 feet;

THENCE South 45°30'34" West a distance of 58.30 feet;

THENCE South 00°25'06" East a distance of 269.13 feet;

THENCE North 89°16'12" West continuing along a Northerly line of said Outlot A and along a Northerly line of Lot 1, said Ash Minor Subdivision, a distance of 446.24 feet to the Northwest corner of Lot 1, said Ash Minor Subdivision;

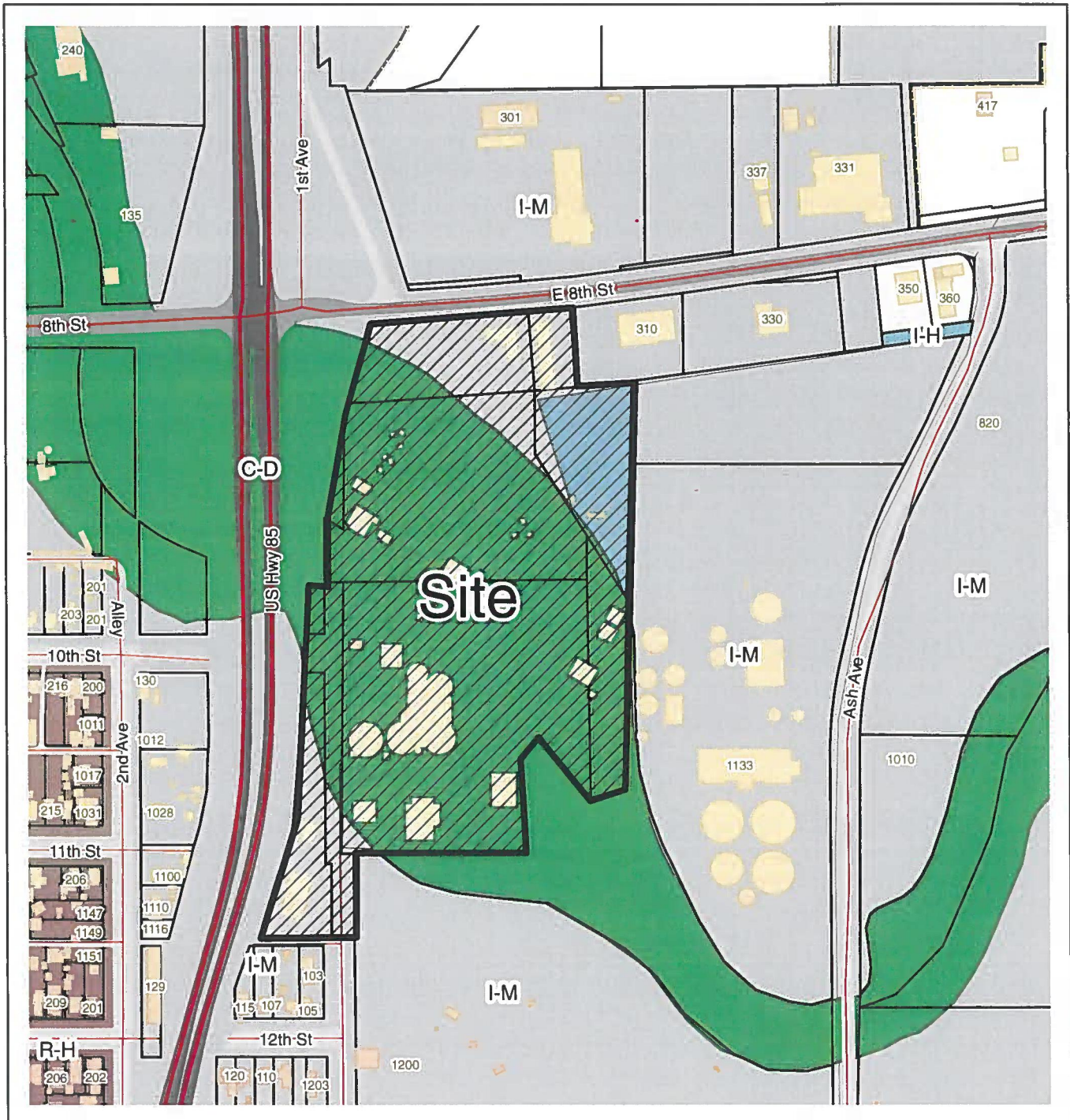
The following Two (2) courses and distances are along the West line of Lot 1, said Ash Minor Subdivision:

THENCE South 00°22'27" East a distance of 24.47 feet;

THENCE South 00°23'43" East a distance of 0.59 feet to the POINT OF BEGINNING.

Said described parcel of land contains 25.759 acres, more or less (±)

Zoning/Vicinity Map Wastewater Treatment Facility



ZON2021-0001

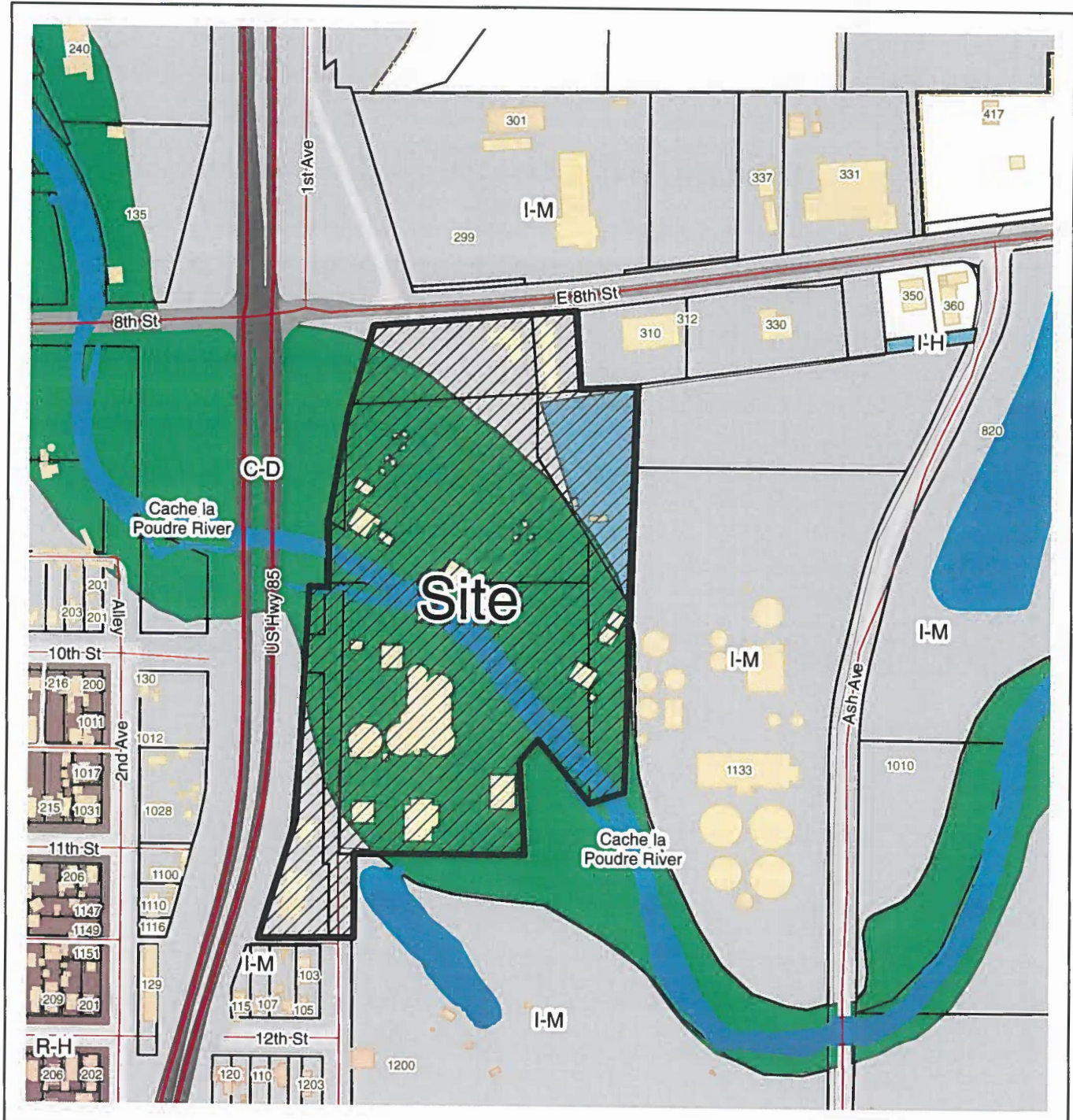
Legend

-  Structure
-  Weld Parcels
-  Road Centerline
-  Roads

0 250 500
Feet



Zoning/Vicinity Map Wastewater Treatment Facility



Legend

- Structure
- FEATURE_SUBTYPE**
- Water Body
- Weld Parcels
- Road Centerline
- Roads

ZON2021-0001

0 250 500
Feet



PLANNING COMMISSION SUMMARY

ITEMS: Rezone from C-D (Conservation District), I-M (Industrial Medium Intensity), and I-H (Industrial High Intensity) Zone District to I-M (Industrial Medium Intensity) Zone District

FILE NUMBER: ZON2021-0001

PROJECT: City of Greeley Wastewater Treatment Facility Rezone

LOCATION: 300 and 306 E. 8th Street, 1001, 1131, 1060, and 1040 1st Avenue, and Parcel Number 0961054118001 and 096104302038; South of E. 8th Street, East of Highway 85 Bypass, and West of Ash Avenue

APPLICANT: Cadee Oakleaf, on behalf of the City of Greeley Water and Sewer Department

CASE PLANNER: Darrell Gesick, Planner III

PLANNING COMMISSION HEARING DATE: September 28, 2021

PLANNING COMMISSION FUNCTION:

The Planning Commission shall consider the staff report, along with testimony and comments made by the applicant and the public and shall then make a recommendation to the City Council regarding the application in the form of a finding based on the review criteria in Section 24-625(c)(3) of the Development Code.

EXECUTIVE SUMMARY

The City of Greeley is considering a request by the City of Greeley Water and Sewer Department to rezone approximately 25.759 acres from the C-D (Conservation District), I-M (Industrial Medium Intensity) and I-H (Industrial High Intensity) Zone District to the I-M (Industrial Medium Intensity) Zone District (see Attachments A, B, C & D).

A. REQUEST

The applicant is requesting approval of a rezone (see Attachment C).

B. STAFF RECOMMENDATION

Approval

C. LOCATION

The subject property is located at 300 and 306 E. 8th Street, 1001, 1131, 1060, and 1040 1st Avenue, and Parcel Number 0961054118001 and 096104302038; South of E. 8th Street, East of Highway 85 Bypass, and West of Ash Avenue.

Abutting Zoning:

North: I-M
South: I-M
East: I-M and C-D
West: I-M and C-D

Surrounding Land Uses:

North: 8th Street/Farm Equipment Implement Sales
South: Leprino Foods
East: Wastewater Treatment Facility for Leprino Foods
West: Highway 85 Bypass

Site Characteristics:

The site is currently developed and is used as the City of Greeley Wastewater Treatment Facility. There are several buildings on the subject site for the purpose of treating wastewater. The Cache la Poudre River runs through the middle of the property (see Attachments E and F).

D. BACKGROUND

The majority of the subject parcels were annexed as part of the Greeley Annexation and zoned I-2 (Medium Industrial) in 1967, (Reception No. 1502070). A smaller portion of the subject parcels were annexed and zoned I-2 in 1988 as part of The Great Western Sugar Company Annexation (Reception No. 2130514). The zoning classifications were changed in 1998, when the Development Code was revised. The existing zoning of I-M is the modern equivalent to I-2.

In 1979, the City Council adopted Ordinance No. 29, 1979, which was intended to regulate development activities in the floodway areas; and within the ordinance, the C-D (Conservation District) was created. On June 17, 1982, the City Council directed the Planning Commission to initiate a zone change on all floodway properties. Over the years, staff has rezoned several sites, including the subject parcels which a portion of was rezoned from I-M to C-D in 2000 (Z 9:00).

In 2015, the Federal Emergency Management Agency (FEMA) adopted new floodplain and floodway regulations for the Cache la Poudre Floodway. The City Council approved a Digital Flood Insurance Rate Map (DFIRM) on January 5, 2016, which modified the City's official floodplain overlay. In accordance with the revised floodplain map, a majority of the area requested for the rezone was removed from the floodway boundaries; however, a portion of the subject site, where the Cache la Poudre River flows, is still in the floodway. A majority of the site remains within the FEMA floodplain, which can still be developed (Resolution No. 3, 2016).

According to Section 24-625(c)(6) of the City of Greeley's Development Code "Property zoned as C-D (Conservation District) which is determined to no longer be in a floodway (flood study accepted and approved by the City and the federal government), and no longer meets the criteria, the Planning Commission or City Council shall initiate a rezoning based on the

following criteria: consult with the property owner and consider current legal uses, adjacent zoning and legal land uses, the history of the City's zoning ordinances and amendments and other relevant factors. Based on the requirements outlined above, staff has consulted with the property owner, considered area land uses and adjacent zoning, and reviewed the City's zoning ordinances and amendments. After review, staff recommends that the subject site be rezoned to I-M (Industrial Medium Intensity).

The site was developed in the early 1930's, with a treatment facility for the City of Greeley Wastewater. Over the years, improvements have been made, and it is anticipated that additional improvements would need to be made to keep the facility up to state and federal standards. Now that the majority of the property is out of the floodway, the applicant would like to have the site rezoned to facilitate future permits more efficiently. The current zoning district could prohibit or delay any further development on the subject site.

The property is also located in an area identified as "high ecological significance" due to its proximity to the Cache la Poudre River. Typically, as part of an administrative site plan process, the applicant would be required to submit a biologist report, which would evaluate any possible impacts to the wildlife in the area. In accordance with Section 24-1217(b)(9) of the City of Greeley's Development Code, a biologist report, unless waived by the City, must develop recommendations to mitigate the negative impacts of development proposals. Such recommendations shall consider the intentions of the applicant for the development of the property in determining the type of mitigation measures, including the following: avoidance, minimizing potential impacts, repairing, rehabilitating, restoring areas, and replacing or providing substitute resources and/or environment, among others. Because the site is already developed, and no impacts to wildlife would occur, a biologist report would be waived for any site plan process.

APPROVAL CRITERIA

Development Code Section 24-625(c)(3) Rezoning Procedures

For the purpose of establishing and maintaining sound, stable and desirable development within the City, the rezoning of land is to be discouraged and allowed only under circumstances provided for in this Section [of the Code]. This policy is based on the opinion of the City Council that the City's zoning map is a result of a detailed and comprehensive appraisal of the City's present and future needs regarding land use allocation and other zoning considerations, and, as such, should not be amended unless to correct manifest errors or because of changed or changing conditions in a particular area of the City in general.

The review criteria found in Section 24-625(c)(3)a-h of the Development Code shall be used to evaluate the zoning amendment application.

- a) Has the area changed, or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area?**

Staff Comment: As mentioned in the Section D above, a portion of the site has recently been removed from the floodway boundaries, which would allow the property to be rezoned and potentially developed or redeveloped in accordance with the City and Federal floodplain regulations.

This request complies with this criterion.

b) Has the existing zoning been in place for at least fifteen (15) years without substantial development resulting and does the existing zoning appear to be obsolete, given development trends?

Staff Comment: The industrial zone district has been in place for over 50 years. As stated above, a portion of the subject site was zoned C-D in 2000, which limits development activity on the property. Since the floodway boundaries have recently changed, the site would be eligible to be rezoned.

Since a majority of the property is no longer within the Cache la Poudre River Floodway, the C-D zoning would be considered obsolete. To simplify, it is recommend to have entire property under one zone district versus multiple districts.

This request complies with this criterion.

c) Are there clerical or technical errors to correct?

Staff Comment: There are no clerical or technical errors to correct. This criterion is not applicable to this request.

d) Are there detrimental environmental impacts, such as flood plains, inadequate drainage, slopes, unstable soils, etc., that may affect future development of this site and which may not have been considered during the original zoning of the property?

Staff Comment: The majority of the property is located entirely within the 100-year floodplain and the portion where the Cache la Poudre River flows is located in the floodway. Any development proposed within the designated floodplain would be required to comply with all local, state and federal regulations. The area within the property that is designated floodway would not allow further development.

Because the site is already developed, there does not appear to be any issues that would impact future development or redevelopment of the site.

This request complies with this criterion.

- e) Is the proposed rezoning necessary in order to provide land for a community related use which was not anticipated at the time of adoption of the City’s Comprehensive Plan; or have the policies of the City changed to the extent that a rezoning is warranted?**

Staff Comment: The proposed rezoning is not necessary in order to provide land for a community-related use, the land is already being used as community use. The need for the rezone is to remove an obsolete zoned area, which would avoid any future impacts to development or redevelopment of the site.

The request complies with this criterion.

- f) What is the potential impact of the proposed rezoning upon the immediate neighborhood and the city as a whole (including potential noise and environmental impacts, visual impacts, the provision of City services such as police, fire, water, sewer, and pedestrian systems and parks and recreational facilities)?**

Staff Comment: It is not anticipated that the proposed rezoning would create significant impacts on the property or adjacent land uses. The site is already developed and the surrounding area is primarily industrial in character.

Any potential noise created by future development will be regulated by the Municipal Code. During any site plan process, the appropriate buffering would be required to be provided, which lessens any potential visual impacts. City services should not be impacted, since the surrounding area is already served by municipal services such as water and sewer. Police and Fire are already serving this area, since it is within the City of Greeley.

The proposal complies with this criterion.

- g) Is there clear and convincing evidence that the proposed rezoning will be consistent with the policies and goals of the City’s Comprehensive Plan and comply with the applicable zoning overlay requirements?**

There is one zoning overlay requirement for the subject property (see Section E). The following City of Greeley Imagine Greeley Comprehensive Plan policies apply to this request.

Comprehensive Plan Policy Objective GC-3.3, Design of Public Facilities

Lead by example in meeting or exceeding the Development Code design standards in the construction of all public facilities, including parking lots, public buildings, landscape areas and parks, buffer yards, and related projects:

Comprehensive Plan Policy Objective IN-1.12, Infrastructure Operations

Ensure that City infrastructure is safe, well-managed, and efficiently operated:

Staff Comment: Approving the rezone would allow the Water and Sewer Department the ability to enhance the site with new buildings or update existing buildings. The only reason the C-D Zoning exists is due to the floodway overlay that covered the subject site, until recently. Since the floodway boundary no longer impacts the site, the site is eligible to be rezoned. If the rezone is not approved, the current zoning district could prohibit or delay any further development or redevelopment of the property.

This request complies with these Comprehensive Plan policies.

h) What is the potential impact of the proposed rezoning upon an approved Zoning Suitability Plan for the property?

Staff Comment: Currently, there is not an approved Zoning Suitability Plan for the subject property. The proposed Zoning Suitability Plan submitted with this application demonstrates, on a conceptual level, that the site should be able to develop or redeveloped in accordance with the Development Code (see Attachment F).

This request complies with this criterion.

E. OVERLAY DISTRICTS

1. FLOODPLAIN OVERLAY DISTRICT

A majority of the property is located within the Cache la Poudre River 100-year floodplain and a small portion is within the floodway. The property would be subject to the regulations found in Section 24-717 of the City of Greeley's Development Code for floodplains, along with all other local, state and federal regulations.

F. PHYSICAL SITE CHARACTERISTICS

1. SUBDIVISION HISTORY

The property is part of the Union Colony Lands plat. A subdivision is not required as part of the rezoning process, but it is recommended that the City consolidate the multiple parcels into one lot in the future.

2. HAZARDS

Since the site is within the FEMA designed floodplain, flooding hazards may exist from time to time.

3. WILDLIFE

The site is located in an area identified as “high ecological significance” due to its proximity to the Cache la Poudre River. Typically, as part of the administrative site plan process, the applicant would be required to submit a biologist report, which would evaluate any possible impacts to the wildlife in the area. Because the site has already been developed, this requirement has been waived for any future development.

4. FLOODPLAIN

The property is located within the 100-year floodplain and a small area within the floodway, according to the adopted Federal Emergency Management Administration (FEMA) flood data.

5. DRAINAGE AND EROSION

This rezone application did not require a drainage report to be submitted. The current drainage patterns would not change as a result of the rezone. Any future development or redevelopment would require a drainage report to be completed and submitted to the City of Greeley for review and approval, as part of the administrative Site Plan Review process.

6. TRANSPORTATION

At this time, staff does not anticipate any significant changes that would negatively impact the roadway system as part of the rezone request.

A conceptual traffic report was not required to be submitted with the rezone. If the rezone is approved, a traffic memo or study will be required to be submitted with the administrative Site Plan Review process. The Public Works Department would review the traffic memo to determine if any modifications to the existing roadways would be warranted.

G. SERVICES**1. WATER**

Water services are available and can adequately serve the subject property. There is a water line located in E. 8th Street.

2. SANITATION

Sanitation services are available and can adequately serve the subject property. There are sewer lines that enter the site at various locations around the property.

3. EMERGENCY SERVICES

The subject site is currently, and will continue to be, served by the City of Greeley Police Department and the City of Greeley Fire Department. Fire Stations #1 and #4 are located approximately one and three-quarter miles to the south and west of the subject site.

4. PARKS / OPEN SPACES

No public parks or additional public open space areas are proposed with this request and the request would not be creating any private parks or open space. The proposed rezone should have little to no impact on parks or open space in the community.

5. SCHOOLS

No schools are proposed or located within the site.

H. NEIGHBORHOOD IMPACTS

1. VISUAL

No visual impacts are anticipated with the rezone request. Any development plan application for the property would be reviewed for compliance with the City's Development Code requirements regarding visual impacts.

2. NOISE

No noise impacts are anticipated with the rezone request. Any potential noise created by future development will be regulated by the Municipal Code.

I. PUBLIC NOTICE AND COMMENT

Neighborhood notices were mailed to a total of 83 surrounding property owners on September 9, 2021, per Development Code requirements (see Attachment G). A sign was posted on the site on September 10, 2021. To date, no comments have been received.

J. MINERAL ESTATE OWNER NOTIFICATION

Mineral notice is not required for a rezone request.

K. PLANNING COMMISSION RECOMMENDED MOTION

Based on the application received and the preceding analysis, the Planning Commission finds that the proposed rezoning from C-D (Conservation District) Zone District, I-M (Industrial Medium Intensity), and I-H (Industrial High Intensity) to I-M (Industrial Medium Intensity) Zone District meets Development Code Section 24-625(c)(3) a, b, d, e, f, g, and h; and therefore, recommend approval of the rezone to the City Council.

ATTACHMENTS

- Attachment A - Zoning/Vicinity Map
- Attachment B - Photo Aerial Map
- Attachment C - Project Narrative
- Attachment D - Rezone Boundary Map
- Attachment E - Site Analysis Map
- Attachment F - Zoning Suitability Map
- Attachment G - Neighborhood Notification Boundary Map

Item No. 13.



Photo Aerial Map Wastewater Treatment Facility



ZON2021-0001

Legend

-  Weld Parcels
-  Road Centerline
-  Origin Cache Mask

0 250 500
Feet



Wastewater Reclamation and Treatment Facility Rezone Application

Introduction and Purpose

The purpose of this rezone application is to bring zoning of the City of Greeley's Water Reclamation and Treatment Facility (WRTF) consistent with the current land use. As currently zoned, the WRTF property spans Conservation District (C-D), Industrial Medium Intensity (I-M) and Industrial High Intensity (I-H). The intent of this rezone application is to apply a I-M zone district over the entire WRTF property which spans multiple parcels over approximately 27 acres.

A separate minor subdivision application will combine the multiple parcels into a single WRTF property.

Location and Property

Property Owner:	City of Greeley – Water and Sewer Department
Address:	300 E. 8 th Street Greeley, CO 80631

Legal Description and Survey of Land

The subject property is south of E. 8th Street, east of SH 85 and north of 12th Street. 1st Avenue terminates into the WRTF property immediately south of the Poudre River. The Poudre River bisects the WRTF parcels creating two distinct areas of the WRTF operations.

Legal Description

Part of Lots 1, 2, 3 and 4 of the SW1/4 SW1/4 of Section 4, Part of Lot 3 of the NW1/4 SW1/4 of Section 4, Part of Lot 1 of the SE1/4 of Section 5, Part of Lot 4 of the NW1/4 NW1/4 of Section 9, all of the Union Colony of Colorado and Part of Blocks 126, 133, 134, 1st Avenue, 10th Street and 11th Street, all of the City of Greeley, and All of Lot 1, Minor Subdivision No. 0961-4-3-MS-8 Situate in the Sections 4, 5, 8 and 9, Township 5 North, Range 65 West of the 6th P.M., City of Greeley, County of Weld, State of Colorado

Action Requested

- a. Has the area changed, or is it changing to such a degree that it is in the public interest to rezone the subject property to encourage development or redevelopment of the area?
 - *Ans. No. The area is being rezoned to bring the land use consistent with the City's zoning criteria.*
- b. Has the existing zoning been in place for at least fifteen (15) years without substantial development resulting and does the existing zoning appear to be obsolete, given development trends?
 - *Ans. The existing zoning has been in place for over 15 years but is inconsistent with the use. The resulting zoning of I-M will be consistent with the use.*
- c. Are there clerical or technical errors to correct?
 - *Ans. The technical error to correct is the application of C-D zoning to the WRTF property. This zoning appears to have been applied during a remapping effort of the floodplain and a concurrent rezoning effort.*
- d. Are there detrimental environmental conditions, such as flood plains, presence of irrigation ditches, inadequate drainage, slopes, unstable soils, etc., that may affect future development of this site and which may not have been considered during the original zoning of the property?
 - *Ans. No. Future development of the property will not be affected by environmental conditions. Floodplain, drainage and other issues are, and will be, addressed by individual projects pursued at the WRTF.*
- e. Is the proposed rezoning necessary in order to provide land for a community-related use which was not anticipated at the time of adoption of the City's Comprehensive Plan; or have the policies of the City changed to the extent that a rezoning is warranted?
 - *Ans. Yes. Zoning the WRTF to a consistent I-M zone district will allow for current and future expansions and redevelopment of the WRTF property.*

- f. What is the potential impact of the proposed rezoning upon the immediate neighborhood and the City as a whole (including potential noise and environmental impacts, visual impacts, the provision of City services such as police, fire, water, sewer, street and pedestrian systems and parks and recreation facilities)?
- *Ans. There will be no adverse effect of the proposed rezoning on the City or adjacent neighborhoods as the rezoning is over property which currently functions at the proposed I-M use.*
- g. Is there clear and convincing evidence that the proposed rezoning will be consistent with the policies and goals of the City's Comprehensive Plan and comply with applicable zoning overlay requirements?
- *Ans. Yes. The proposed rezoning is entirely consistent with the City's Comprehensive Plan. This rezoning request simply corrects prior zoning errors across the property and applies a consistent zoning designation across the entire property. Primarily, this rezoning application would align with Comprehensive Plan Goal IN-1 – Ensure developed areas in Greeley are served by adequate public facilities and services. The proposed rezone is also entirely consistent with the Land Use Guidance Map. Below is a comparison of the Land Use Guidance Map to the existing Zoning Map. The existing Zoning shows the majority of the WRTF designated as C-D.*



Land Use Guidance Map (magenta = industrial use)



Existing Zoning Map

- h. What is the potential impact of the proposed rezoning upon an approved zoning suitability plan for the property?
- *Ans. There is no impact of the proposed rezoning. The rezoning designation (I-M) is entirely suitable for the project.*
- i. Signatures of all owners of record.
- *Ans. See attached application materials. This is a City initiated rezone application.*
- j. Zoning suitability plan.
- *Ans. The zoning suitability plan is attached to the application as [Exhibit A](#).*
- k. List of property owners within area of influence.
- *Ans. The applicant has provided a list of property owners within a 1,000-ft radius of the exterior boundary of the property. This list is attached to this application as [Exhibit B](#).*

REZONE PROPERTY BOUNDARY MAP WASTEWATER RECLAMATION AND TREATMENT FACILITY

A Rezone of Multiple Parcels of Land, Situate in the Sections 4, 5, 8 and 9, Township 5 North, Range 65 West of the 6th P.M., City of Greeley, County of Weld, State of Colorado

PROPERTY DESCRIPTION

A parcel of land, being part of Lots 1, 2, 3 and 4 of the Southwest Quarter of the Southwest Quarter (SW1/4 SW1/4) of Section Four (4), part of Lot 3 of the Northwest Quarter of the Southwest Quarter (NW1/4 SW1/4) of said Section Four (4), part of Lot 1 of the Southwest Quarter (SE1/4) of Section Five (5) and part of Lot 4 of the Northwest Quarter of the Northwest Quarter (NW1/4 NW1/4) of Section Nine (9), all in Township Five North (T.5N.), Range Sixty-five West (R.65W.) and in accordance with the subdivision of lands by the Union Colony of Colorado as shown on the map recorded April 17, 1891 in Book 2 at Page 41, as Recession No. 28743 of the records of the Weld County Clerk and Recorder, part of Block 126, 133 and 134, 1st Avenue, 10th Street and 11th Street, all of the City of Greeley; and all of Lot 1, Minor Subdivision No. 0961-4-3-M-8, recorded October 18, 1972 as Recession No. 1589948 of the records of the Weld County Clerk and Recorder, said parcel of land located in the West Half of the Southwest Quarter (W1/2 SW1/4) of said Section 4, the Southwest Quarter of the Southwest Quarter (SE1/4 SW1/4) of said Section 5, the Northwest Quarter of the Northwest Quarter (NW1/4 NW1/4) of Section Eight (8) and the Northwest Quarter of the Northwest Quarter (NW1/4 NW1/4) of said Section 9, all in Township Five North (T.5N.), Range Sixty-five West (R.65W.) of the Sixth Principal Meridian (6th P.M.), City of Greeley, County of Weld, State of Colorado, and being more particularly described as follows:

COMMENCING at the Southwest corner of said Section 4 and commencing the West line of the Southwest Quarter (SW1/4) of said Section 4, being monumented by a 6" rebar with a 2 1/2" diameter aluminum cap stamped "1528285, 2013" in a monument box at the South end and by a 6" rebar with a 2 1/2" diameter aluminum cap stamped "1528285, 2013" at the North end, as bearing North 00°22'27" West being a Grid Bearing of the Colorado State Plane Coordinate System, North Zone, North American Datum 1983/2011, a distance of 2893.79 feet, with all other bearings contained herein relative thereto;

THENCE South 89°18'01" East along the South line of the Southwest Quarter of the Southwest Quarter (SW1/4 SW1/4) of said Section 4, being monumented by a 6" rebar with a 2" diameter aluminum cap stamped "1528372, 1991" in a monument box at the East end, a distance of 30.07 feet to the West line of Lot 1, said Minor Subdivision, recorded July 30, 2012 as Recession No. 3882189 of the records of the Weld County Clerk and Recorder, said point being the POINT OF BEGINNING;

THENCE South 00°22'43" East along the West line of said Lot 1 a distance of 199.89 feet to the Easterly extension of the South line of the North Half (N1/2) of said Block 134; THENCE South 89°58'24" West along said Easterly extension and along the South line of the North Half (N1/2) of said Block 134 a distance of 229.83 feet to an Easterly Right-of-way line of US Highway 85; The following Seven (7) courses and distances are along Easterly Right-of-way lines of said US Highway 85: THENCE North 13°48'48" East a distance of 324.32 feet; THENCE North 08°10'05" East a distance of 35.00 feet; THENCE North 02°28'52" East a distance of 451.37 feet; THENCE North 00°15'44" West a distance of 128.70 feet; THENCE South 86°13'29" East a distance of 24.85 feet; THENCE North 00°15'44" West a distance of 212.20 feet; THENCE North 17°11'31" East a distance of 499.47 feet to a Southerly Right-of-way line of State Highway 263, also known as East 8th Street, established by that Special Warranty Deed recorded May 9, 1986 in Book 1450 at Page 128, as Recession No. 1230147, of the records of the Weld County Clerk and Recorder;

The following Two (2) courses and distances are along Southerly Right-of-way lines of said State Highway 263, also known as East 8th Street: THENCE North 86°30'06" East a distance of 171.61 feet to a Point of Curvature (PC); THENCE along the arc of a curve, which is concave to the North, a distance of 379.53 feet to the Northwest corner of Lot 1, said Minor Subdivision No. 0961-4-3-M-8, also being the Southwest corner of Lot 2, said Minor Subdivision No. 0961-4-3-M-8, said point being the beginning point of a curve, said curve being non-tangent to aforesaid line;

THENCE along the Southerly line of Lot 2, said Minor Subdivision No. 0961-4-3-M-8, also being along the arc of said curve, a distance of 126.62 feet to the Northwest corner of Lot 3, said Ash Minor Subdivision, said curve having a radius of 8461.08 feet, a central angle of 00°51'27" and a long chord bearing North 83°14'02" East a distance of 126.62 feet; THENCE South 01°23'46" West, non-tangent to aforesaid curve and along the West line of Lot 3, Lot 2 and Outlet A, said Ash Minor Subdivision a distance of 1063.68 feet; The following Four (4) courses and distances are along Northerly lines of said Outlet A: THENCE South 89°08'53" West a distance of 93.34 feet; THENCE North 41°25'56" West a distance of 211.65 feet; THENCE South 45°30'34" West a distance of 58.30 feet; THENCE South 00°25'08" East a distance of 289.13 feet;

THENCE North 89°18'12" West continuing along a Northerly line of said Outlet A and along a Northerly line of Lot 1, said Ash Minor Subdivision, a distance of 448.24 feet to the Northwest corner of Lot 1, said Ash Minor Subdivision; The following Two (2) courses and distances are along the West line of Lot 1, said Ash Minor Subdivision: THENCE South 00°22'27" East a distance of 24.47 feet; THENCE South 00°23'43" East a distance of 0.58 feet to the POINT OF BEGINNING.

Said described parcel of land contains 25.759 Acres, more or less (±).

BASIS OF READINGS AND LINEAL UNIT DEFINITION

Assuming the West line of the Southwest Quarter of said Section 4, T.5N., R.65W., being monumented by a 6" rebar with a 2 1/2" diameter aluminum cap stamped "1528285, 2013" in a monument box at the South end and by a 6" rebar with a 2 1/2" diameter aluminum cap stamped "1528285, 2013" at the North end, as bearing North 00°22'27" West being a Grid Bearing of the Colorado State Plane Coordinate System, North Zone, North American Datum 1983/2011, a distance of 2893.79 feet, with all other bearings contained herein relative thereto.

The lineal dimensions as contained herein are based upon the "U.S. Survey Foot."

TITLE COMMITMENT NOTE

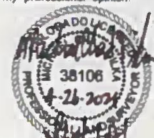
This survey does not constitute a title search by King Surveyors to determine ownership or easements of record. For all information regarding easements, rights-of-way and title of records, King Surveyors relied upon Title Commitment Number 5558-3265398, dated June 17, 2018 as prepared by First American Title Insurance Company to delineate the aforesaid information.

NOTICE

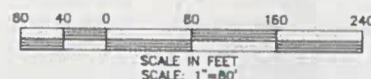
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown herein. (13-80-100 C.R.S. 2012)

SURVEYOR'S STATEMENT

I, Michael Chad Dille, a Colorado Licensed Professional Land Surveyor, do hereby state that this Rezoning Plat was prepared under my personal supervision, and that the foregoing plat is an accurate representation thereof, all this to the best of my knowledge, information, belief, and in my professional opinion.



Michael Chad Dille - On Behalf Of King Surveyors
Colorado Licensed Professional Land Surveyor #38106



LEGEND

- SECTION LINE
- RIGHT OF WAY LINE
- BOUNDARY LINE
- FOUND ALIQUOT MONUMENT AS DESCRIBED
- CALCULATED POSITION

LINE TABLE

LINE	BEARING	LENGTH
L1	N08°10'05"E	35.00'
L2	N00°15'44"W	128.70'
L3	S86°13'29"E	24.85'
L4	S89°08'53"W	93.34'
L5	S45°30'34"W	58.30'
L6	S00°22'27"E	24.47'
L7	S00°23'43"E	0.58'

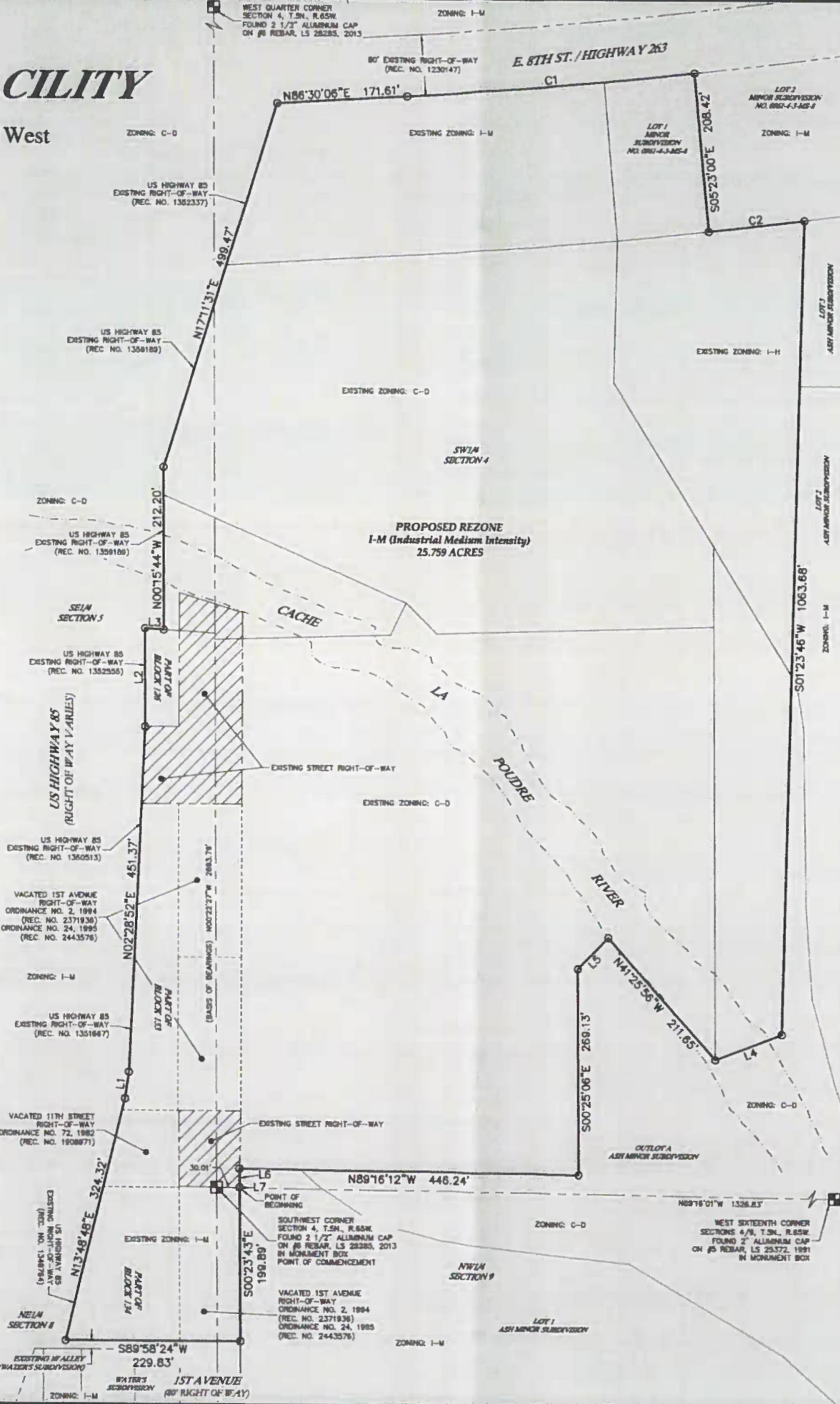
CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	CHORD	CH BEARING
C1	379.53'	7680.00'	2°48'53"	379.44'	N85°05'08"E
C2	126.62'	8461.08'	0°51'27"	126.62'	N83°14'02"E



VICINITY & ZONING MAP

SCALE: 1"=500'



DATE: 4/8/2021
FILE NAME: 20190027-A-RZN
SCALE: 1"=80'
DRAWN BY: CSK
CHECKED BY: MCD

KING SURVEYORS
650 E. Garden Drive | Windsor, Colorado 80550
phone: (970) 686-5011 | email: contact@KingSurveyors.com

DATE: 4-8-21
SURF:
REVISIONS:
ADDRESS CITY COMMENTS

**REZONE PROPERTY BOUNDARY MAP
WASTEWATER RECLAMATION AND TREATMENT FACILITY**
FOR
CITY OF GREELEY
1001 11TH AVENUE, 2ND FLOOR, GREELEY, CO 80631

PROJECT #: 20190027-A
SHEET 1 OF 1

REZONE SITE ANALYSIS MAP WASTEWATER RECLAMATION AND TREATMENT FACILITY

A Rezone of Multiple Parcels of Land, Situate in the Sections 4, 5, 8 and 9, Township 5 North, Range 65 West of the 6th P.M., City of Greeley, County of Weld, State of Colorado

BASE OF BEARINGS AND LINEAL UNIT DEFINITION

Assuming the West line of the Southeast Quarter of said Section 4, T.5N., R.65W., being monumented by a 60 rebar with a 2 1/2" diameter aluminum cap stamped "1528285, 2013" at the South end and by a 60 rebar with a 2 1/2" diameter aluminum cap stamped "1528285, 2013" at the North end, as bearing North 00°22'27" West being a Grid Bearing of the Colorado State Plane Coordinate System, North Zone, North American Datum 1983/2011, a distance of 2693.75 feet, with all other bearings contained herein relative thereto.

The lineal dimensions as contained herein are based upon the "U.S. Survey Foot."

TITLE COMMITMENT NOTE

This survey does not constitute a title search by King Surveyors to determine ownership or easements of record. For all information regarding easements, rights-of-way and title of records, King Surveyors relied upon Title Commitment Number 5609-3285399, dated June 17, 2019 as prepared by First American Title Insurance Company to delineate the aforesaid information.

NOTICE

According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown herein. (13-80-103 C.R.S. 2013)

FLOOD PLAIN NOTE

The subject property is in flood zones as follows per FEMA flood map 08123C1541E revised January 20, 2016. Floodplain lines indicated herein are approximate only.

- flood zone "X", "areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood"
- flood zone "AE", "areas of 1% chance flood (100-year flood), base flood elevations determined."
- The floodway in the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood height."

VERTICAL DATUM

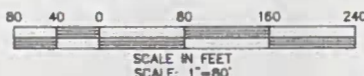
NORTH AMERICAN VERTICAL DATUM OF 1988. VERTICAL CONTROL BASED UPON CITY OF GREELEY WATER POLLUTION CONTROL FACILITY BENCHMARK "BENCHMARK #2" (ELEVATION=4640.41).

HORIZONTAL DATUM

COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM 1983/2011 SCALED TO GROUND USING A COMBINED FACTOR OF 0.99973183 (1.00026817) ABOUT 0.0.

LEGEND

—	EDGE OF ASPHALT	cc	CURB CUT	04	SANITARY MANHOLE	---	SECTION LINE
—	EDGE OF CONCRETE	00	MONITORING WELL	00	CLEAN OUT	---	RIGHT OF WAY LINE
—	BUILDING	00	UNKNOWN MANHOLE	00	SANITARY VALVE	---	BOUNDARY LINE
—	BUILDING OVERHANG	00	AIR CONDITIONER UNIT	00	MAILBOX	---	FOUND ALIQUOT MONUMENT AS DESCRIBED
—	METAL HANDRAIL	00	DRAINAGE MANHOLE	00	SIGN	---	CALCULATED POSITION
—	EDGE OF LANDSCAPING	00	ELECTRIC BOX	00	REFLECTOR POST	---	
—	EDGE OF GRAVEL ROAD	00	ELECTRIC MANHOLE	00	TELEPHONE PEDESTAL	---	
—	FLOWLINE	00	POWER POLE	00	TELEPHONE MANHOLE	---	
—	CHAIN LINK FENCE	00	LIGHT POLE	00	TELEPHONE MARKER	---	
—	FENCE LINE	00	GAS VALVE	00	SPIGOT	---	
—	FENCE GATE	00	GAS MARKER	00	FIRE HYDRANT	---	
—	PIPE	00	IRRIGATION VALVE BOX	00	WATER VALVE	---	
—	GAS LINE	00	PINE TREE	00	GATE VALVE	---	
—	OVERHEAD POWER LINE	00	DECIDUOUS TREE	00	AIR VALVE	---	
—	DRAINAGE LINE	00	STEEL POST	00	WATER SHUTOFF	---	
					WATER METER	---	

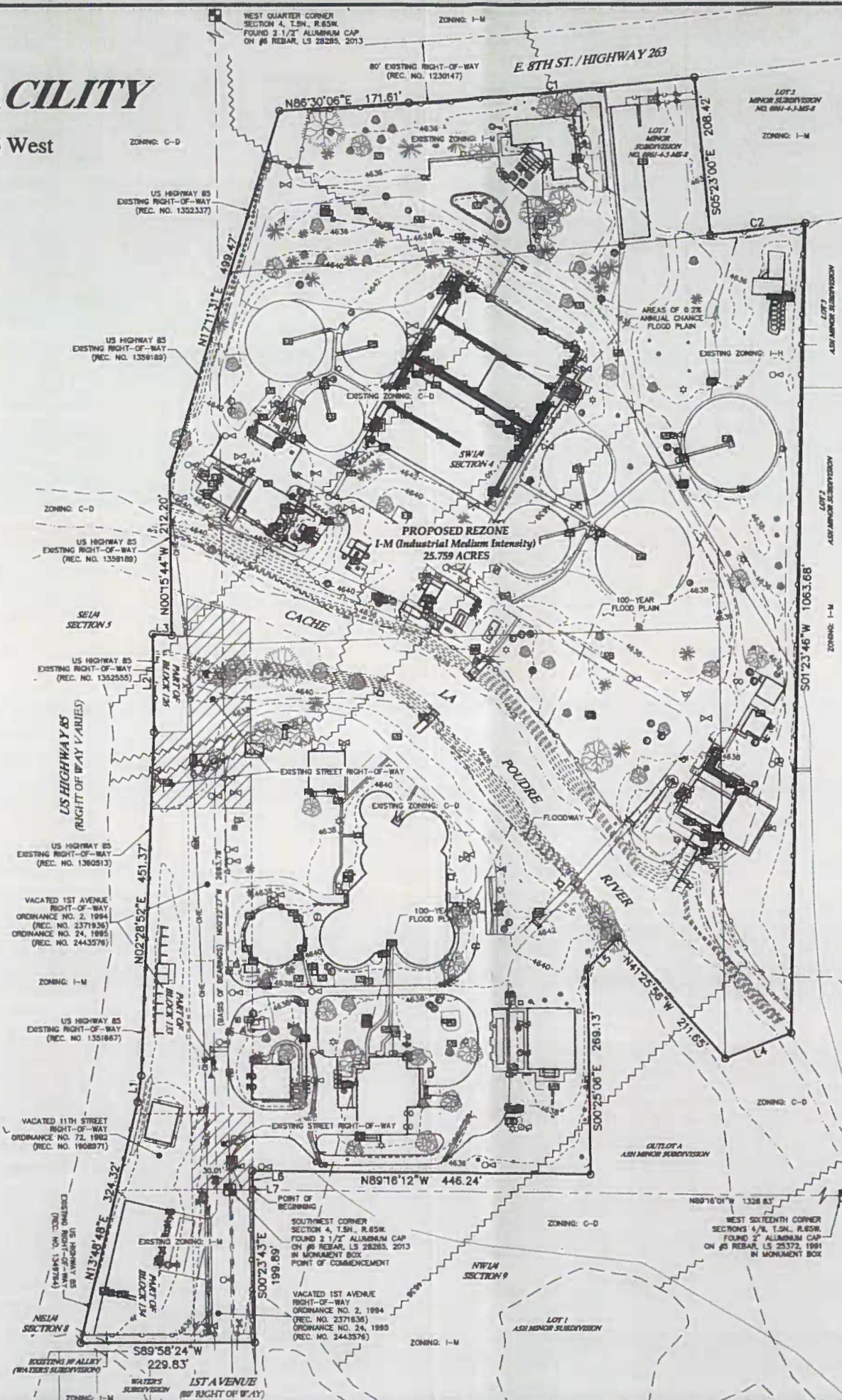


LINE TABLE

LINE	BEARING	LENGTH
L1	N08°10'05"E	33.00'
L2	N00°15'44"W	128.70'
L3	S86°03'29"E	24.85'
L4	S89°08'55"W	83.34'
L5	S45°30'34"W	58.30'
L6	S00°22'27"E	24.47'
L7	S00°23'43"E	0.98'

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	CHORD	CH BEARING
C1	379.53'	7680.00'	2°48'53"	379.49'	N83°05'09"E
C2	128.62'	8461.08'	0°51'27"	128.62'	N83°14'02"E



DATE:	4/8/2021
FILE NAME:	20190027-A-RZN
SCALE:	1"=80'
DRAWN BY:	CSK
CHECKED BY:	MCD

KING SURVEYORS
650 E. Garden Drive | Windsor, Colorado 80550
phone: (970) 686-5011 | email: contact@KingSurveyors.com



DATE:	
REVISIONS:	

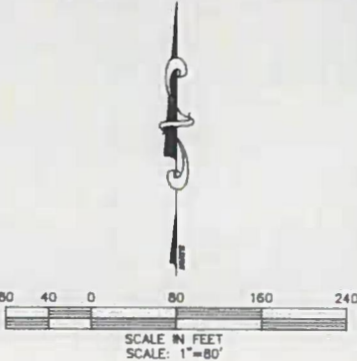
REZONE SITE ANALYSIS MAP
WASTEWATER RECLAMATION AND TREATMENT FACILITY
FOR
CITY OF GREELEY
1001 11TH AVENUE, 2ND FLOOR, GREELEY, CO 80631

PROJECT #:
20190027-A

ZONING SUITABILITY MAP

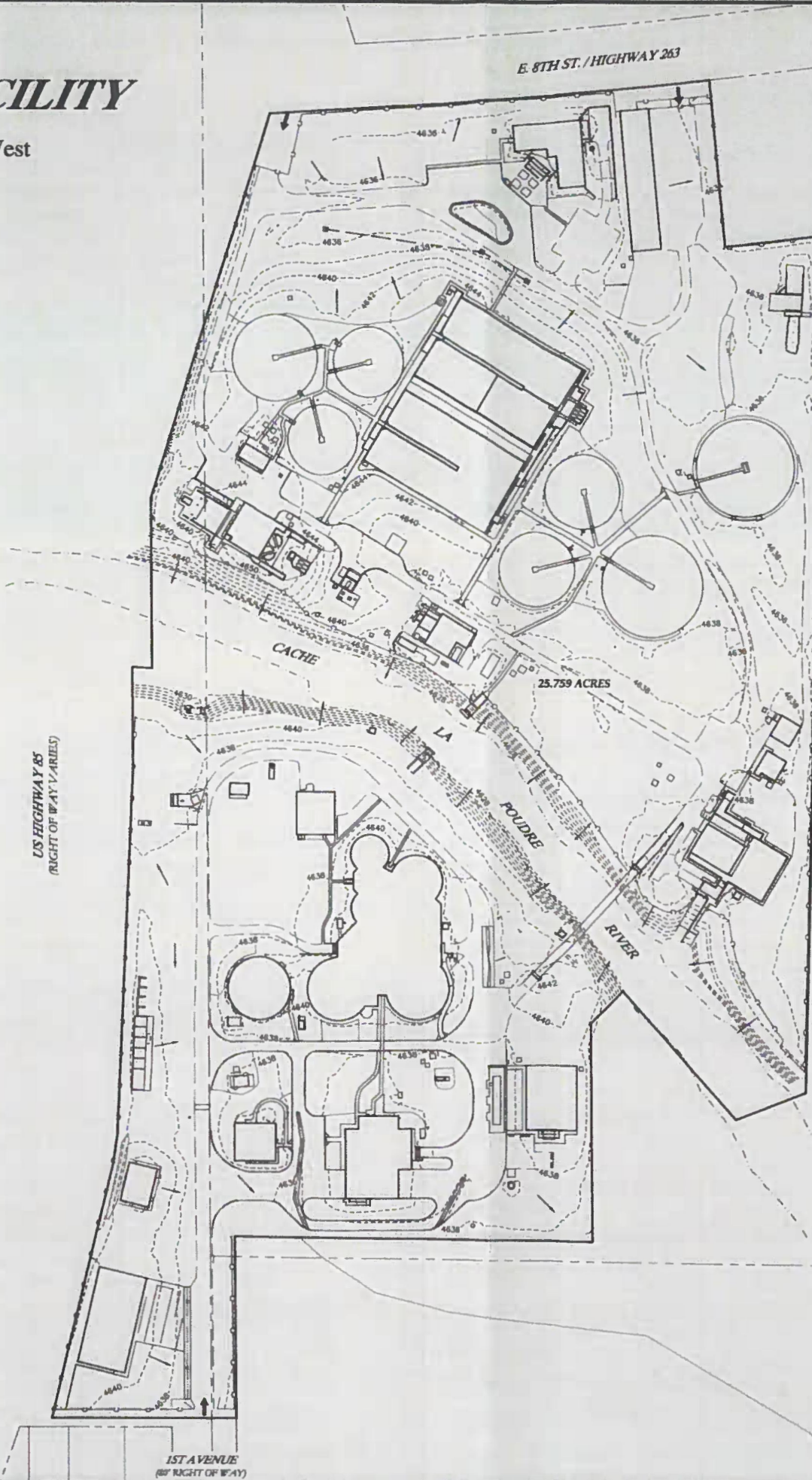
WASTEWATER RECLAMATION AND TREATMENT FACILITY

A Rezone of Multiple Parcels of Land, Situate in the Sections 4, 5, 8 and 9, Township 5 North, Range 65 West of the 6th P.M., City of Greeley, County of Weld, State of Colorado



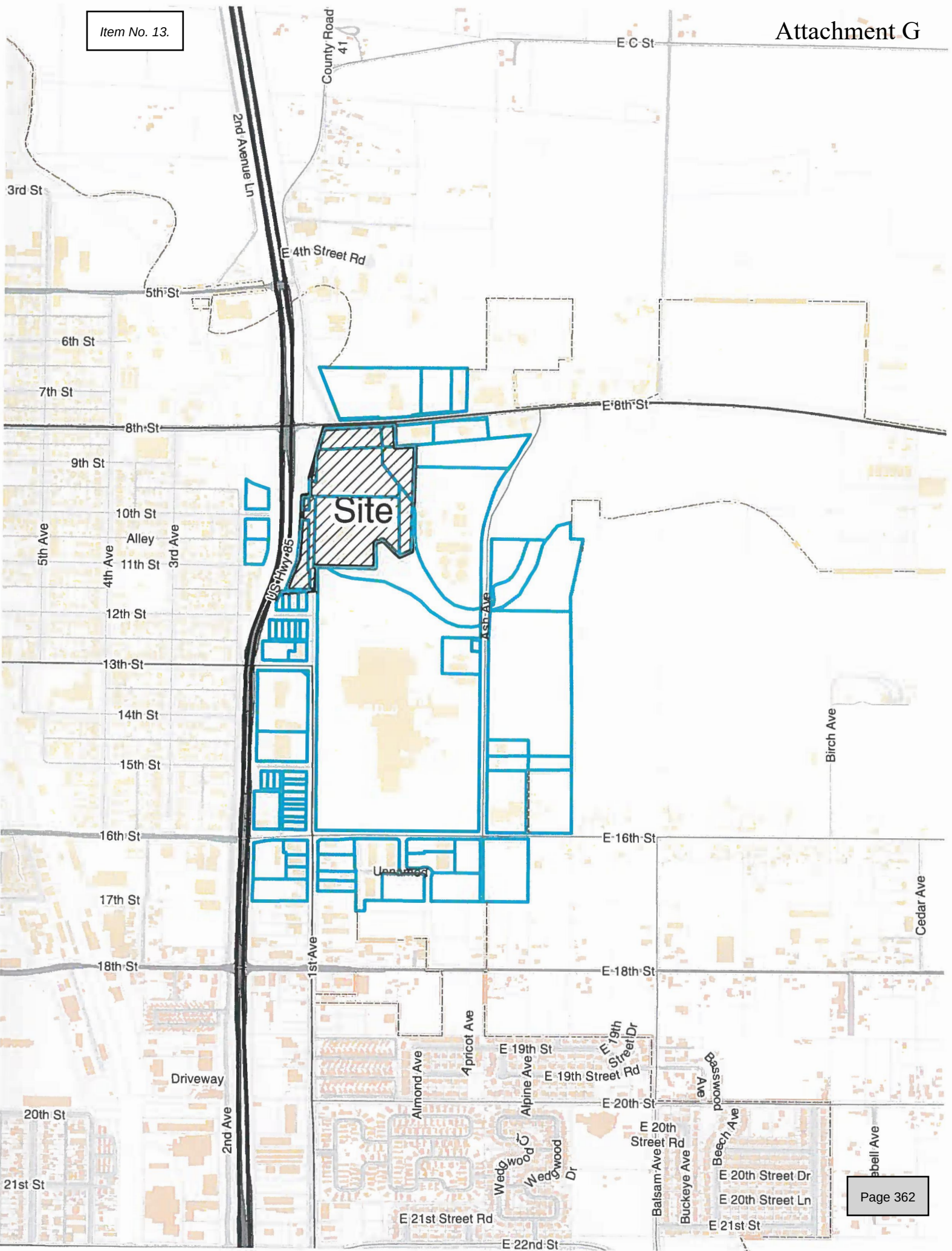
LEGEND	
	EDGE OF ASPHALT
	EDGE OF CONCRETE
	BUILDING
	BUILDING OVERHANG
	METAL HANDRAIL
	EDGE OF LANDSCAPING
	EDGE OF GRAVEL ROAD
	FLOWLINE
	CHAIN LINK FENCE
	FENCE LINE
	PIPE
	SECTION LINE
	QUARTER SECTION LINE
	RIGHT OF WAY LINE
	BOUNDARY LINE
	EXISTING ACCESS POINT

NOTICE
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon. (13-60-105 C.R.S. 2012)



DATE:	4/8/2021
FILE NAME:	20190027-A-RZN
SCALE:	1"=80'
DRAWN BY:	CSK
CHECKED BY:	MCD
KING SURVEYORS 650 E. Garden Drive Windsor, Colorado 80550 phone: (970) 686-5011 email: contact@Kingsurveyors.com	
DATE:	4-8-21
REVISIONS:	
ADDRESSED CITY COMMENTS	
ZONING SUITABILITY MAP WASTEWATER RECLAMATION AND TREATMENT FACILITY FOR CITY OF GREELEY 1001 11TH AVENUE, 2ND FLOOR, GREELEY, CO 80631	
PROJECT #	20190027-A
1 Page 361	
SHEET 1 OF 1	

2:30 PM 04/08/2021 1:13:17 AM 1:1



Council Agenda Summary

October 5, 2021

Key Staff Contact: Raymond Lee, Acting City Manager

Title:

University of Northern Colorado Update

Summary:

The University of Northern Colorado's President, Andy Feinstein, will be present to provide Council with an update on various operations and programs.

Attachments:

None

Council Agenda Summary

October 5, 2021

Key Staff Contact: John Karner, Finance Director, 970-350-9732

Title:

Introduction and first reading of an Ordinance adopting the budget for 2022

Summary:

This ordinance authorizes the appropriations for the fiscal year 2022 (January 1, 2022 through December 31, 2022).

A presentation will be made at the time of introduction of the ordinance and a public hearing will be held prior to the final adoption of the ordinance on October 19, 2021.

Fiscal Impact:

Does this item create a fiscal impact on the City of Greeley?	Yes
If yes, what is the initial, or, onetime impact?	\$486,302,286
What is the annual impact?	None
What fund of the City will provide Funding?	All Funds
What is the source of revenue within the fund?	All Sources
Is there grant funding for this item?	Yes
If yes, does this grant require a match?	Yes
Is this grant onetime or ongoing?	Ongoing & Onetime
Additional Comments:	

Legal Issues:

None.

Consideration of this matter is a legislative process which includes the following public hearing steps:

- 1) City staff presentation
- 2) Council questions of staff
- 3) Public input (hearing opened, testimony - up to three minutes per person, hearing closed)
- 4) Council discussion
- 5) Council decision

Other Issues and Considerations:

Based upon input from the public hearing, the budget ordinance can be amended prior to final adoption.

Strategic Work Program Item or Applicable Council Priority and Goal:

Applies to All Priorities and Goals

Decision Options:

- 1) Introduce the ordinance as presented; or
- 2) Amend the ordinance and introduce as amended; or
- 3) Deny the ordinance; or
- 4) Continue consideration of the ordinance to a date certain.

Council's Recommended Action:

A motion to introduce the ordinance and schedule the public hearing and final reading for October 19, 2021.

Attachments:

Budget Transmittal Letter
Ordinance
2022 Budget
2022 Budget at a Glance
PowerPoint Presentation



City Manager's Fiscal Year 2022 Recommended Budget Message

There's no question that we are living in and through historical times. For over 21 months now, the world has been jolted by the unthinkable. The challenges we've faced, and those that lie in front of us, require perseverance, adaptability and strong stewardship. Without question, Greeley has demonstrated those skills. It's because of those strengths that I can share a cautiously optimistic forecast for Greeley's 2022 budget. As we set our sights to the future, there are far more unknowns than certainties. Still, because of Greeley's prudent planning, decisive decisions, and thoughtful approach to the impact of COVID-19, I remain hopeful that we are on a positive trend toward recovery.

As you'll see, Greeley is on relatively solid financial footing thanks to strategic planning and an intentional response to an unforeseen pandemic that's rippled through nearly every sector of the economy since Fiscal Year 2020 (FY20). As the economy shows many positive signs of recovery, including the restoration of city operations reduced during the height of the pandemic, the City Manager's Recommended Budget for Fiscal Year 2022 (FY22) was developed with a "cautious yet confident" approach in light of ongoing uncertainty.

While the trajectory of the city's revenue streams is headed in the right direction, the reality is that funding has not returned to pre-pandemic levels. In response, city expenditures have followed suit, with 2021 spending down 4% from FY20, which was already reduced by 21% from FY19. Injections of one-time federal stimulus dollars have helped ameliorate a portion of the losses, but the city should not assume a full recovery until city revenue streams return to pre-pandemic levels.

When it comes to expenditures, the city manager's recommended budget proposes to prioritize investments that are critical to the city's long-term success. It includes investing in employees, the city's greatest asset, with cost-of-living increases for FY22. It also includes strategic investments in:

- **Public Safety:**
Additional first responders, police officers, upgraded equipment and multi-year contract extensions for both Fire and Police union membership.
- **Community Vitality/Quality of Life:**
Culture, Parks and Recreation returning the department facilities, programming, and operations to pre-COVID levels.

- **Mobility & Sustainable Infrastructure:**

Utilities - Water, sewer, and storm water capital investments focused on preparing for Greeley's long-term growth trajectory.

- **High-Performance Government:**

Organizational assessments - Several departments have already undergone a review that's an established best practice and that leads to recommendations to implement for optimizing resources to deliver high-quality service. Assessments will continue into 2022 and provide valuable insight to the City Manager's Office in organizational planning and resource allocation.

Job classification and compensation - A project that will lead to consistent job descriptions across the organization and competitive salary ranges to ensure the city is able to recruit and retain staff as part of the city's goal to be a municipal employer of choice.

The proposed budget also recommends staying the course with strategic investments that include fulfilling capital improvement projects (CIP), totaling about \$160 million in FY22. Infrastructure, transportation and mobility make up the lion's share of the CIP budget based on our master plan and priorities. Highlights for FY22 include:

- Over \$6.5 million in quality of life improvements – including Centennial Park upgrades
- Over \$11 million in road development – including continued intersection improvement and road widening
- Nearly \$80 million in water-funded projects – nearly half of which is early construction of the Terry Ranch water development
- About \$20 million in storm water funded projects, which would include the first phases of a multiyear effort to improve drainage in areas prone to flooding during heavy rainfall

The city will continue to monitor economic conditions and forecasts and make appropriate adjustments as the economic recovery becomes clearer. Pending the economic recovery continues and Greeley is able to avoid a setback from a future wave of COVID-19, the city will be on track to explore additional strategic initiatives in Fiscal Year 2023.

Raymond C. Lee III

Interim City Manager

THE CITY OF GREELEY
ORDINANCE NO. _____, 2021

AN ORDINANCE ADOPTING THE BUDGET FOR 2022 AND MAKING APPROPRIATIONS FOR 2022.

WHEREAS, by virtue of the provisions contained in the Greeley Charter Sections 3-15 and 5-15 of the City of Greeley, Colorado, the City Council is required to adopt each annual budget and make the necessary appropriations by Ordinance; and

WHEREAS, the City Manager has submitted to the City Council the proposed budget in accordance with Section 5-12 of the Greeley Charter; and

WHEREAS, the City Council of Greeley, Colorado, on October 19, 2021, held a public hearing in accordance with Section 5-13 of the Greeley Charter on said proposed budget, after first giving proper notice of said public hearing.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GREELEY, COLORADO:

Section 1. There is hereby adopted and approved for fiscal 2022 (January 1, 2022 to December 31, 2022) an annual budget, which consists of a document designated as such and a tax levy of 11.274 mills.

Section 2. The annual budget for the year 2022, as adopted and approved, shall be on file in the City Clerk's office for public inspection during office hours of such office for the entire year of 2022:

Section 3. There are hereby appropriated from the General Fund for fiscal year 2022 the following amounts:

Fund Description	Amount	Transfers	Total
General (100)	115,431,208	8,444,235	123,875,443

Section 4. There are hereby appropriated from the Special Revenue Funds for fiscal year 2022 the following amounts:

Fund Description	Amount	Transfers	Total
Convention & Visitors (102)	152,250	569,700	721,950
Community Development (103)	846,118	-	846,118
Streets & Roads (104)	11,519,068	-	11,519,068
Conservation Trust (105)	2,250	1,000,000	1,002,250
Sales & Use Tax (106)	356,100	86,217,962	86,574,062
Conference Center Development (110)	764,500	-	764,500
Downtown Development Authority TIF (111)	325,000	210,000	535,000
Designated Revenue (120)	238,344	4,901,819	5,140,163
Museum (140)	2,118	-	2,118
Senior Citizen (141)	50	-	50
Senior Center Clubs (142)	21,675	-	21,675
Community Memorials (143)	1,095	-	1,095

Section 5. There are hereby appropriated from the Debt Service Funds for fiscal year 2022 the following amounts:

Fund Description	Amount	Transfers	Total
General Debt Service (200)	6,711,467	-	6,711,467

Section 6. There are hereby appropriated from the Capital Projects Funds for fiscal year 2022 the following amounts:

Fund Description	Amount	Transfers	Total
Public Improvement (301)	844,291	-	844,291
Public Art (303)	645,443	-	645,443
Food Tax (304)	7,141,489	2,710,000	9,851,489
Softball Improvement (305)	200	-	200
Fire Equip & Acquisition Replacement (306)	1,397,528	205,611	1,603,139
Quality of Life/Imagine Greeley (318)	5,517,400	1,029,911	6,547,311
FASTER (320)	515,700	-	515,700
Keep Greeley Moving (321)	13,568,466	3,600,000	17,168,466
2016 City Center (322)	2,001,076	-	2,001,076
Fire Protection Development (331)	2,800	-	2,800
Police Development (332)	201,225	-	201,225
Island Grove Development (333)	100,200	-	100,200
Transportation Development (334)	11,051,245	93,315	11,144,560
Park Development (335)	500	1,581,930	1,582,430
Trails Development (336)	101,100	-	101,100

Section 7. There are hereby appropriated from the Permanent Funds for fiscal year 2022 the following amounts:

Fund Description	Amount	Transfers	Total
Cemetery Endowment (601)	1,000	40,000	41,000
Petriken Memorial (603)	10	-	10
Memorials (605)	33,500	32,800	66,300

Section 8. There are hereby appropriated from the Enterprise Funds for fiscal year 2022 the following amounts:

Fund Description	Amount	Transfers	Total
Cemetery (400)	683,463	-	683,463
Municipal Golf Courses (401)	2,224,094	-	2,224,094
Downtown Parking (402)	337,395	-	337,395
Sewer (411)	7,078,651	783,585	7,862,236
Sewer Construction (412)	1,914,502	168,102	2,082,604
Sewer Capital Replacement (413)	6,528,973	-	6,528,973
Sewer Debt Service (414)	1,378,844	-	1,378,844
Water (421)	21,621,107	2,892,210	24,513,317
Water Construction (422)	45,493,147	537,042	46,030,189
Water Capital Replacement (423)	24,647,011	-	24,647,011
Water Rights Acquisition (424)	8,640,432	-	8,640,432
Water Debt Service (425)	10,925,681	-	10,925,681
Stormwater (431)	2,872,007	573,591	3,445,598
Stormwater Construction (432)	16,502,749	416,824	16,919,573
Stormwater Replacement (433)	2,658,809	-	2,658,809
Stormwater Debt Service (434)	548,050	-	548,050

Section 9. There are hereby appropriated from the Internal Service Funds for fiscal year 2022 the following amounts:

Fund Description	Amount	Transfers	Total
Health (500)	17,669,553	-	17,669,553
Workers' Compensation (501)	1,777,137	-	1,777,137
Liability (502)	2,332,743	-	2,332,743
Communications (503)	204,200	-	204,200
Equipment Maintenance (511)	3,051,946	-	3,051,946
Fleet Replacement (512)	3,344,162	553,446	3,897,608
Equipment Replacement (513)	1,236,686	-	1,236,686
Information Technology (521)	6,391,737	-	6,391,737
Information Technology Acquisition (522)	182,708	-	182,708

Section 10. The appropriation made by this ordinance includes \$369,740,203 for expenditures and \$116,562,083 for transfers resulting in a total of \$486,302,286.

Section 11. The City Council finds that all appropriations from the Public Art Reserve Accounts within the Water, Sewer, and Stormwater Utilities Enterprise Funds for the Public Art Program do provide a betterment to those utilities, and the City Council further determines that the acquisition and lease of works of art, and maintenance, repair, and display of works of art, supports specific utility purposes beneficial to the ratepayers of such utilities.

Section 12. This ordinance shall become effective five (5) days after its final publication as provided in Sections 3-16 and 3-17 of the Greeley Charter.

PASSED AND ADOPTED, SIGNED AND APPROVED THIS ____ DAY OF _____, 2021.

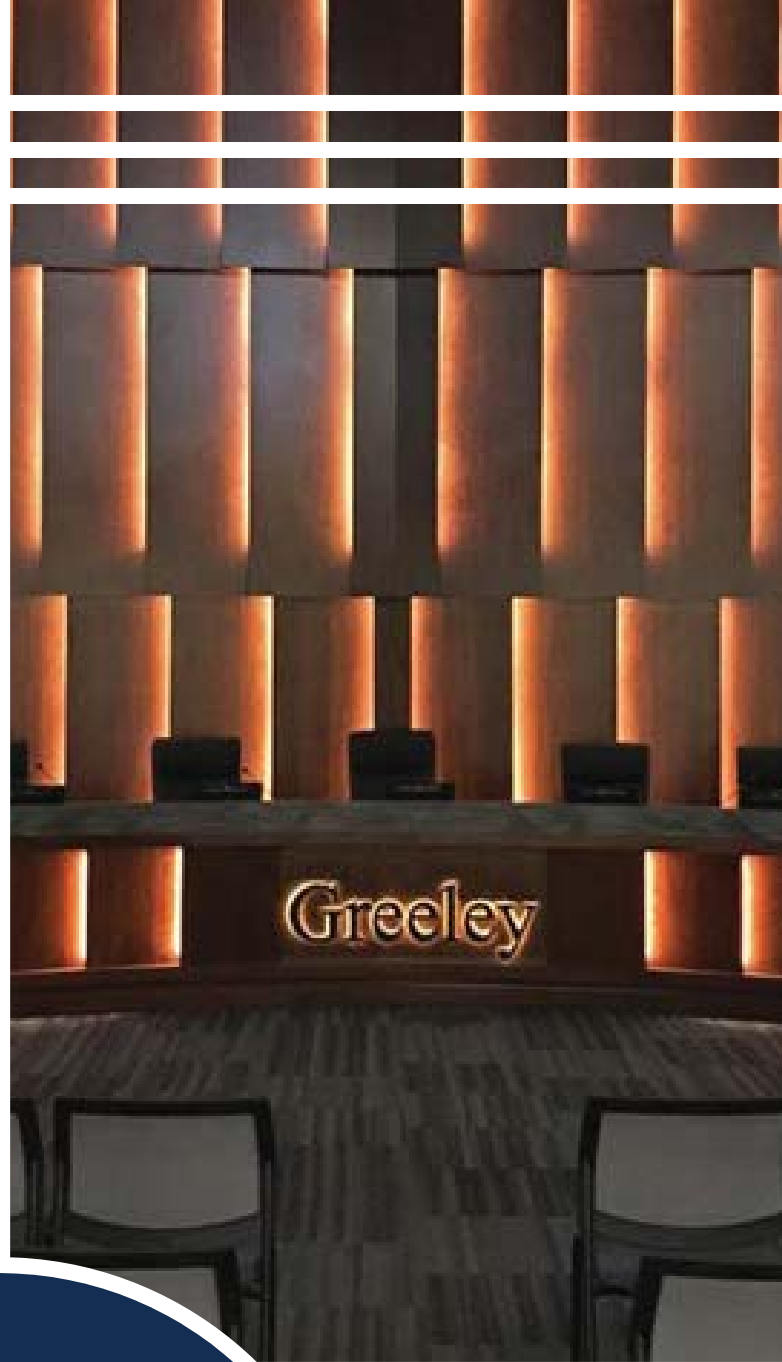
ATTEST:

City Clerk

THE CITY OF GREELEY

BY _____
Mayor

2022 BUDGET



DISTINGUISHED BUDGET PRESENTATION AWARD (GFOA)



Government Finance Officers Association of the United State and Canada (GFOA) presented a Distinguished Budget Presentation Award to the **City of Greeley, Colorado**, for its Annual Budget for the beginning **January 1, 2021**. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communication device.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

**City of Greeley
Colorado**

For the Biennium Beginning

January 01, 2021

Christopher P. Morill

Executive Director

We believe the 2022 budget as presented in this document, continues to conform to program requirements. A finalized version will be submitted to the GFOA as part of the Distinguished Budget Presentation Award Program.

COUNCIL, COMMITTEE MEMBERS, & CITY STAFF



POLICY GUIDE OPERATING PLAN FINANCIAL STRATEGY BUDGET SUMMARY

CITY COUNCIL MEMBERS

Mayor	<i>John Gates</i>	John.Gates@greeleygov.com
Ward I	<i>Tommy Butler</i>	Tommy.Butler@greeleygov.com
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At Large	<i>Kristin Zasada</i>	Kristin.Zasada@greeleygov.com
At Large	<i>Ed Clark</i>	Ed.Clark@greeleygov.com

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Interim Chief of Staff	<i>Kelli Johnson</i>	Kelli.Johnson@greeleygov.com
City Attorney	<i>Douglas Marek</i>	Douglas.Marek@greeleygov.com
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Director of Finance	<i>John Karner</i>	John.Karner@Greeleygov.com
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Director of Public Works	<i>Paul Trombino</i>	Paul.Trombino@Greeleygov.com
Director of Water & Sewer	<i>Sean Chambers</i>	Sean.Chambers@greeleygov.com

CITIZEN BUDGET ADVISORY COMMITTEE (CBAC) MEMBERS

<i>Trent Howell, Chair</i>	<i>John Schull</i>	<i>Jesse Quinby</i>	<i>Lori Williams</i>	<i>Ron Adams</i>
<i>Blythe Driver</i>	<i>Nick Kenny</i>	<i>Jose Garcia</i>	<i>Laura Fischer</i>	

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Budget & Compliance Manager	<i>Robert Miller</i>	Robert.Miller@greeleygov.com	970.350.9735
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Financial Analyst I	<i>Brandon Garza</i>	Brandon.Garza@greeleygov.com	970.350.9769

City Manager's Fiscal Year 2022 Recommended Budget Message

There's no question that we are living in and through historical times. For over 21 months now, the world has been jolted by the unthinkable. The challenges we've faced, and those that lie in front of us, require perseverance, adaptability and strong stewardship. Without question, Greeley has demonstrated those skills. It's because of those strengths that I can share a cautiously optimistic forecast for Greeley's 2022 budget. As we set our sights to the future, there are far more unknowns than certainties. Still, because of Greeley's prudent planning, decisive decisions, and thoughtful approach to the impact of COVID-19, I remain hopeful that we are on a positive trend toward recovery.

As you'll see, Greeley is on relatively solid financial footing thanks to strategic planning and an intentional response to an unforeseen pandemic that's rippled through nearly every sector of the economy since Fiscal Year 2020 (FY20). As the economy shows many positive signs of recovery, including the restoration of city operations reduced during the height of the pandemic, the City Manager's Recommended Budget for Fiscal Year 2022 (FY22) was developed with a "cautious yet confident" approach in light of ongoing uncertainty.

While the trajectory of the city's revenue streams is headed in the right direction, the reality is that funding has not returned to pre-pandemic levels. In response, city expenditures have followed suit, with 2021 spending down 4% from FY20, which was already reduced by 21% from FY19. Injections of one-time federal stimulus dollars have helped ameliorate a portion of the losses, but the city should not assume a full recovery until city revenue streams return to pre-pandemic levels.

When it comes to expenditures, the city manager's recommended budget proposes to prioritize investments that are critical to the city's long-term success. It includes investing in employees, the city's greatest asset, with cost-of-living increases for FY22. It also includes strategic investments in:

- **Public Safety:**
Additional first responders, police officers, upgraded equipment and multi-year contract extensions for both Fire and Police union membership.
- **Community Vitality/Quality of Life:**
Culture, Parks and Recreation returning the department facilities, programming, and operations to pre-COVID levels.

- **Mobility & Sustainable Infrastructure:**

Utilities - Water, sewer, and storm water capital investments focused on preparing for Greeley's long-term growth trajectory.

- **High-Performance Government:**

Organizational assessments - Several departments have already undergone a review that's an established best practice and that leads to recommendations to implement for optimizing resources to deliver high-quality service. Assessments will continue into 2022 and provide valuable insight to the City Manager's Office in organizational planning and resource allocation.

Job classification and compensation - A project that will lead to consistent job descriptions across the organization and competitive salary ranges to ensure the city is able to recruit and retain staff as part of the city's goal to be a municipal employer of choice.

The proposed budget also recommends staying the course with strategic investments that include fulfilling capital improvement projects (CIP), totaling about \$160 million in FY22. Infrastructure, transportation and mobility make up the lion's share of the CIP budget based on our master plan and priorities. Highlights for FY22 include:

- Over \$6.5 million in quality of life improvements – including Centennial Park upgrades
- Over \$11 million in road development – including continued intersection improvement and road widening
- Nearly \$80 million in water-funded projects – nearly half of which is early construction of the Terry Ranch water development
- About \$20 million in storm water funded projects, which would include the first phases of a multiyear effort to improve drainage in areas prone to flooding during heavy rainfall

The city will continue to monitor economic conditions and forecasts and make appropriate adjustments as the economic recovery becomes clearer. Pending the economic recovery continues and Greeley is able to avoid a setback from a future wave of COVID-19, the city will be on track to explore additional strategic initiatives in Fiscal Year 2023.

Raymond C. Lee III
Interim City Manager



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READER'S GUIDE

CITY OF GREELEY 2022 BUDGET

The purpose of this section of the budget document is to assist the reader in his or her efforts to understand the City's budget.

FINANCIAL STRUCTURE

Funds are the backbone of the City's financial structure. Funds are established to account for specific revenues and expenditures related to certain activities of the City.

As can be seen below, funds are organized into various groups to identify their purpose.

Governmental:

- General Fund - a major fund to account for all financial resources except those required by law or administrative action to be accounted for in another fund; per City of Greeley Charter Section 5-5.
- Special Revenue Funds - to account for the proceeds of specific revenue sources other than those from expendable trusts or from major capital projects that are legally restricted for specified purposes.
- Debt Service Funds - to account for resources used to pay annual principal and interest payments on general long-term debt.
- Capital Projects Funds - to account for financial resources used for the acquisition or construction of major capital facilities other than those financed by proprietary funds and trust funds.
- Permanent Funds - to account for resources that are legally restricted to the extent that only earnings, and not principal, may be used to support the City's operation.

Proprietary:

- Enterprise Funds - to report any activity for which a fee is charged to external users for goods or services.
- Internal Service Funds - to report any activity that provides goods or services to other funds or departments on a cost-reimbursement basis.

ORGANIZATIONAL STRUCTURE

Just as the collecting and spending of money have structure, the way that work is accomplished in any organization also has structure. The organizational structure of the City is displayed in several ways:

- A city-wide organization chart in this section.
- Department organization charts in the Department Summaries section.
- A description entitled "How the Department is Organized" in each department narrative.

The City uses specific terminology to represent various levels of organizational structure. The terms are activity, program, division, and department.

Activity

The activity is the most basic unit of organizational structure. An activity identifies a grouping of similar, related work activities. Examples of programs include Investigations (Police), Family FunPlex (Culture, Parks & Recreation), and Snow and Ice Removal (Public Works).

Budgets are prepared at the activity level. Once approved, the activity-level budgets are combined to determine division, department, fund, and total City budgets. Activities are, therefore, the basic unit of both the organizational and financial structure.

The City of Greeley has preferred to keep its budgeting presentation simple and traditional. Greeley presents its budget as a "Program Performance" budget which means that each activity is associated with performance indicators that measure output in relation to the resources allocated.

READER'S GUIDE

CONTINUED

Division

Divisions are simply a collection of related programs. As an example, the Street Maintenance division consists of Snow and Ice Removal, Street Resurfacing, Patching, and Graffiti programs. Programs are organized into divisions that facilitate administration and coordination of their operations by a single manager. Typically, the larger departments have two or more divisions, each with several programs. Smaller departments may consist of several programs all reporting to a department head.

Department

Departments are traditionally the highest level organizational units of municipal government operations. Familiar department examples are Police, Public Works, Culture, Parks & Recreation, and Finance. Departments typically report to the City Manager. The City Manager, City Attorney, and Municipal Court Judge report directly to the City Council. The City's structure at the department level is presented in the organization charts in the Department Summaries section.

PRIORITIES & PERFORMANCE MEASURES

Objective Directed Activities

The City Council priorities are presented in this section. Other visionary strategies are presented in the City Council's Priorities and the City Manager's Work Program (a separate document). Departments prepare their performance measures in concert with these broader priorities. Departmental priorities are presented at the end of the Reader's Guide that shows the relationship between the City Council priorities and department performance measures.

Performance Measures

Performance measures are statistical measures which are collected to reflect what is accomplished for the resources allocated. Some measures are workload related and others gauge effectiveness or efficiency (see glossary for definitions). The performance measures table documents five years, 2015-2019, when data is available and contains both performance measure and indicators. Since budgets are prepared eighteen months prior to their actual execution, estimates of a future workload are represented by the target column. Actual numbers for 2021 will become available in February 2022. Changes to the 2022 budget required the evaluation of all relevant performance measures to assure the best allocations of resources. Not all measures are presented in this document, as several hundred are maintained by the City, but are used to give a glimpse of the process involved to develop the 2022 budget. By reviewing all columns in the performance measures tables and each department, the reader can better ascertain the trend in each of the measures (i.e., whether it is increasing, decreasing, or relatively stable).

CITY RESOURCES

General information about the City can be found on the following website: <https://greeleygov.com/>

Information about City Council & Ordinances can be viewed on the following website:

<https://greeleygov.com/government/council>

The City of Greeley YouTube channel is home to many videos available to the public, which consist of City Council Work sessions, Board Meetings & Hearings, news updates, and other presentations. These resources can be found on the following website: <https://www.youtube.com/c/Greeleygovernment/videos>

The City's Boards & Commissions and their archived Agendas & Minutes can be found on the following website:

<https://greeleygov.com/government/b-c>

READER'S GUIDE

CONTINUED

BUDGET & FINANCIAL RESOURCES

The City's Budget reports provide detail on a variety of financial topics. Below is a list detailing all of the Budget Reports that are posted on the following website: <http://greeleygov.com/government/finance/budget>

- Budget At a Glance: A high level concise overview of the annual budget.
- Biennial/Annual Budget Books: A comprehensive financial presentation of the City's budget detail, including: budget processes, revenues, expenditures, personnel, funds, departments and capital improvement projects.
- Capital Improvement Plans: The financial plan for the City's capital projects concerning cost estimation, scope design and project identification to meet the City's fiscal responsibilities and objectives.
- Fee Directory: An all-encompassing list of the City's fees for all applicable departments and services.
- Revenue Estimates: A snapshot of the City's budget expectations and recommendations.
- Revenue Manuals: The City's rates and fees, legal basis and revenue collection methodology.

The City's financial reports provide detail on several financial topics. Below is a list detailing all of the Financial Reports that are posted on the following website: <http://greeleygov.com/government/finance/reports>

- Comprehensive Annual Financial Report (CAFR): U.S. government financial statements encompassing the financial position for the City of Greeley that complies with the accounting requirements promulgated by the Governmental Accounting Standards Board (GASB).
- Monthly / Quarterly / Year-End Financial Reports: Financial summary reports detailing fundamental trends, projects, funds, and expectations associated with the City of Greeley's revenues and expenditures on a monthly and annual basis.

PERSONNEL SUMMARIES

Staffing levels have been detailed and summarized in several formats, beginning with a listing in each department's Budget Summary. There is also a Personnel Summaries section of the document that provides the staffing levels of all programs in the Full-Time Equivalent method of counting positions.

FEEDBACK

What do you think? Your feedback is greatly valued. If you have suggestions or questions regarding the budget, please direct them to:

BUDGET OFFICE

City of Greeley
1000 10th Street
Greeley, CO 80631
Phone: (970) 350-9735

Finance Director: John.Karner@Greeleygov.com
Budget & Compliance Manager: Robert.Miller@greeleygov.com

CITY GOVERNMENT FORM & STRUCTURE

The municipal government provided by the Charter of the City of Greeley, Colorado, is a Council-Manager form of government. Pursuant to the provisions of the Constitution of the State of Colorado and subject only to limitations imposed therein and by the Charter of the City of Greeley, all powers of the City are vested in an elective City Council.

POWERS OF THE CITY

The City has all powers of local self-government and home rule and all powers possible for a City to have under the constitution and laws of Colorado. Such powers are exercised in conformity with the provisions of the City of Greeley Charter, or in such a manner as may be provided by the Council, not consistent with the Charter.

City Council Membership

Policy-making and legislative authority are vested in the City Council consisting of the Mayor and six other members. The Council is elected on a non-partisan basis. Council members serve four-year terms and the Mayor is elected to serve a two-year term. Four of the Council members are elected by ward. The Mayor, two council ward seats, and one council at-large seat are elected at every general municipal election.

Mayor

The Mayor presides over meetings of the City Council and has the same right to speak and vote therein as any other member. The Mayor is a conservator of the peace, and in emergencies may exercise within the City the powers conferred by the Governor of the State of Colorado for purposes of military law.

General Powers:

- A. The Council appoints and removes the City Manager.
- B. The Council adopts the budget of the City.
- C. The Council approves the minimum and maximum schedule of compensation for boards, commissions, and all employees of the City.
- D. The Council, or duly authorized committee thereof, may investigate any agency and the official acts of any officer or employee thereof, and may compel, by subpoena, the attendance, and testimony of witnesses and production of books and documents.
- E. The Council provides for enforcement of its ordinances.
- F. The Council may enter into contracts and leases on behalf of the municipal government with the approval of the City Attorney and the City Manager.
- G. The Council, by ordinance, may enter into contracts with other governmental bodies.
- H. The Council provides for independent audits of all funds and accounts of the City.
- I. The Council, by ordinance, may create new offices, departments, or agencies.
- J. The Council may provide for licenses, permits, and fees for regulatory or revenue purposes.

City Manager

The City Manager is the Chief Administrative Officer of the City and is responsible to the Council for the proper administration of all of the City's affairs. To that end, he or she has power and is required to:

General Powers:

- A. Be responsible for enforcement of the laws and ordinances of the City.
- B. Appoint, suspend, and remove heads of all departments except as otherwise designated by the Charter.
- C. Prepare the budget annually and submit it to the Council and be responsible for its administration after adoption.
- D. Prepare and submit to the Council as of the end of the fiscal year, a complete report on finances and administrative activities of the City for the preceding year.
- E. Keep the Council advised of the financial condition and future needs of the City and make recommendations to the Council.
- F. Exercise supervision and control over all administrative departments and agencies unless otherwise provided by the Charter.
- G. Be responsible for enforcement of all terms and conditions imposed in favor of the City or its inhabitants in any contract or public utility franchise.
- H. Inform the public clearly on City government functions and activities.
- I. Perform other duties as may be prescribed by the Charter or required of him or her by the Council not inconsistent with the Charter.

FINANCIAL POLICIES

Revenue

The budget process involves an annual review of estimated revenue and fee schedules. Estimated revenues are conservatively projected with rate increases and decreases based upon:

- Projected growth and development in Greeley
- Related costs of services provided
- Estimated number of persons benefitting from the services
- Expected inflation and its impact on the provision of services

Prior to August of 1983, the Charter of the City of Greeley prohibited earmarking sales tax revenues for specific purposes. In 1985, sales tax revenue bonds were first issued to finance capital improvements. At this time there are two issues outstanding: 2012 and 2014. Sales tax collected will first be used to service this debt in accordance with the bond ordinances and the remaining balance will be transferred to capital project funds or the General Fund.

The City of Greeley imposes a number of miscellaneous licenses, fees, and taxes which are reviewed annually in conjunction with the Revenue Policy, to determine rate and fee schedules for the ensuing year. User charges are set annually for the various enterprises to cover estimated operation, maintenance, and overhead costs.

The City provides a variety of services that enhance the quality of life of its citizens such as:

- Parks & Trails
- Museums
- Recreation Centers
- Union Colony Civic Center

These extra services are funded partially by private contributions and efforts will continue to secure donations as they are an integral part of the future success of these programs.

Expenditures

Budgeted expenditures are limited to projected revenues and fund surpluses. Annual budget priorities are established on the basis of Council Priorities with the following considerations taking precedence:

- Debt Payments
- Public Safety
- Utility Services

Other public services and programs will be provided to the extent allowed by the economy at that time.

Lease-Purchase

In 1986, the City of Greeley began using lease/purchase financing for the provision of new and replacement equipment, vehicles, and rolling stock in order to:

- Ensure the timely replacement of equipment and vehicles
- Ensure that vehicle replacement requirements were included in the operating budget

Advantages that a lease/purchase financing method can offer over a cash financing method are:

- It decreases the impact of inflation on the purchase of new and replacement equipment
- It reduces the initial impact of the cost to user departments by enabling acquisition costs to be spread over the useful life of large ticket equipment
- It safeguards the opportunity to use cash assets to earn higher interest than the interest cost of lease/purchasing

Depending upon interest rates and the projected equipment needs for future years, over-reliance upon lease/purchase as an equipment financing mechanism can result in compounded future costs.

FINANCIAL POLICIES

CONTINUED

Investments

For cash management purposes, the City of Greeley currently pools excess cash from all funds and invests in government bonds and other eligible securities.

Since most City funds are scheduled for specific purposes, maturities are selected to coincide with the periods during which monies will be spent even though new money is coming in to replace expended funds. Because of the positive nature of the yield curve (i.e., longer-term rates are higher than shorter-term rates), the City attempts to stagger the maturity dates on investments to meet anticipated cash flow needs to be based on a cash flow model and a yield curve. Thus, a passive portfolio strategy is employed. However, active trading is encouraged to take advantage of short-term market swings when conditions warrant a more active strategy. The investment pool intends to maximize interest income according to risk, marketability, and diversification.

Eligible Investments:

- Treasury Obligations: Treasury bills, Treasury notes, Treasury bonds, and Treasury STRIPS with maturities not exceeding five years from the date of purchase.
- Federal Instrumentality Securities: Debentures, discount notes, global securities, callable securities and stripped principal of coupons with maturities not exceeding five years from the date of purchase issued by the following only: Federal National Mortgage Association, Federal Farm Credit Banks, Federal Home Loan Banks, Federal Home Loan Mortgage Corporation, and Student Loan Marketing Association.
- Prime Commercial Paper issued on U.S. companies and denominated in U.S. currency with a maturity not exceeding 180 days from the date of purchase which is rated in its highest rating category at the time of purchase by one or more nationally-recognized organizations which regularly rates such obligations.
- Eligible Bankers Acceptances with an original maximum maturity not exceeding 90 days issued on domestic banks or branches of foreign banks domiciled in the U.S. and operating under U.S. bank laws with a minimum of \$250 million combined capital and surplus, whose senior long-term debt is rated at the time of purchase AA by Standard & Poor's, AA by Moody's or AA by Fitch IBCA, Duff and Phelps, and deposits of the issuing bank must be insured by the Federal Deposit Insurance Corporation.
- Repurchase Agreements with a defined termination date of 180 days or less collateralized by U.S. Treasury and agency securities listed under Treasury Obligations and Federal Instrumentality Securities with a maturity not exceeding ten years. Title must transfer to the City or the City must have a perfected security interest.
- Local Government Investment Pools authorized under CRS 24-75-701, 702 which are no-load, have an objective of maintaining a constant daily net asset value per share, limit assets of the fund to securities authorized in this investment policy, have a maximum stated maturity and weighted average maturity in accordance with Federal Securities Law Regulation 2A-7 and have a rating AAA by Standard & Poor's or AAA by Moody's or AAA/V-1+ by Fitch IBCA, Duff & Phelps.
- Time Certifications of Deposit or savings accounts in state or national banks or in a state or federally chartered savings and loans which are state-approved depositories and are insured by the FDIC. Certificates of deposit that exceed the FDIC insured amount shall be collateralized in accordance with the Colorado Public Deposit Protection Act.
- Money Market Mutual Funds registered in the Investment Company Act of 1940 which are no-load, have a policy to maintain a constant daily net asset value per share, limit assets of the fund to those securities authorized in this policy, have a maximum state maturity and weighted average maturity in accordance with Federal Securities Regulation 2A-7 and are rated either AAA by Standard & Poor's or AAA by Moody's or Fitch Investors Service.

In all cases, collateral shall have at the least, a market value equal to the investment funds involved.

An average rate of return for the current analysis of the City's investment portfolio will be performed and include the following:

- Average maturity of the investment portfolio for the current quarter as compared with the previous three
- A listing of investments by type and institution which shows the applicable percentages of the total portfolios

FINANCIAL POLICIES

CONTINUED

Debt

The City borrows money and issues short-term notes, general obligation bonds, revenue bonds, special or local improvement bonds, and any securities not in contravention of the Charter of the City of Greeley.

It is a high priority of the City of Greeley to maintain good communications with bond rating companies and to earn good bond ratings. The City has developed the following policies to ensure that debt is soundly financed:

- Revenue sources to be used to finance debt are conservatively estimated
- The term of debt will not exceed the life of the project being financed by the debt

Future projects are considered to determine future financing needs and the availability of unrestricted resources to finance both current and future debt.

In addition, the City Council observes the following restrictive provisions in all issues of bonds by the municipality in accordance with the City Charter:

- Total general obligation debt will not exceed 10% of the total assessed valuation for tax purposes
- The interest rate shall not exceed the market rate
- No bonds shall be issued at less than the par value
- The sale of all bonds shall be based upon competitive bids
- All bonds issued by the City shall contain a provision for redemption prior to maturity

Annual budgets include debt service payments and reserve requirements for all debt currently outstanding and all proposed debt issues.

Reserves

In 2010 the City Council adopted a fund balance and working capital balance policy for the General, Sewer, Water, and Stormwater funds. On November 1, 2016, the reserve policy was updated and adopted by City Council to adjust for extraordinary expenditures.

- General fund unrestricted fund balance shall be two months of operating expenditures, plus operating transfers out, less any extraordinary expenditure items, calculated as the end of the most recent fiscal year.
- Sewer, Water, and Stormwater funds working capital balances shall be maintained at 25% of operating expenses less depreciation at the end of the most recent fiscal year.
- The use of fund balance or working capital must be appropriated by City Council.

Debt reserves are established to protect bondholders from payment defaults. Adequate debt reserves are essential in maintaining good bond ratings and for the marketability of bonds. The amounts of debt reserves are established by ordinance in association with each bond issue.

BUDGET PROCESS

Budget Procedures

Prior to the beginning of the budget process the City Manager meets with the City Council to review current council priorities and define new priorities. Following the identification of Council's priorities the City Manager develops an appropriate work program.

In March, the budget process begins with the departments updating their priorities and performance measures. During this budget cycle, the emphasis continues to be on updating and modifying performance measures. The departments are asked to develop performance measures that would measure quality and efficiency and not workload measures.

During the month of April, budget preparation manuals are distributed to the departments providing guidelines and instructions for preparing their budgets. Both the revenue and the expenditure budgets are submitted during May and June. Most departments have citizen advisory boards that help the department head determine project priorities to be proposed in the operating budget.

All requests are summarized and compared to prior year actual expenditure totals and the current budget for City Manager review meetings which involve analysis by the City Manager, Finance Director, Deputy Finance Director, and Budget Officer. Meetings are conducted to evaluate all requests using a City-wide perspective and to compare proposed expenditures to projected revenues with the objective of balancing the budget.

In July, the five year capital improvement plan is updated.

The City Manager is required by Charter to prepare and submit to the City Council on or before the fifteenth of September each year, a recommended budget covering the next fiscal year. The following information is required:

- Detailed estimates with supporting explanations of all proposed expenditures for each agency of the City, showing the expenditures for corresponding items for the last preceding fiscal year in full, and estimated expenditures for the current fiscal year.
- Statements of the bonded and other indebtedness of the City, showing the debt redemption and interest requirements, the debt authorized and unissued, and the condition of sinking funds, if any.
- Detailed estimates of all anticipated revenues of the City from sources other than taxes with a comparative statement of the amounts received by the City from each of the same similar sources for the last preceding fiscal year in full, and estimated revenues for the current fiscal year.
- A statement of the estimated balance or deficit for the end of the current fiscal year.
- An estimate of the amount of money to be raised from current and delinquent taxes and the amount to be raised from bond issues which, together with any available unappropriated surplus and any revenues from other sources, will be necessary to meet the proposed expenditures.
- Such other supporting information as the City Council may request, or as may be otherwise required by the Charter.

Citizen Budget Advisory Committee Review

The purpose of the nine-member committee appointed by the City Council is to provide citizen involvement in the budget process. The functions of the Committee shall include, but not be limited to:

- Becoming familiar with City operations, and commenting on revenue requirements, expenditures, staffing levels, alternative service delivery and how the budget will meet the needs of the community.
- Giving special review attention to specific areas, as directed by City Council or by consensus of the committee.
- Commenting, through an annual report, on the City budget to City Council.

BUDGET PROCESS

CONTINUED

Budget Hearing and Adoption

A public hearing on the proposed budget is held before its final adoption at such time and place as the City Council directs. The proposed budget is balanced, meaning that expenditures do not exceed available resources. Notice of the public hearing, a brief summary of the proposed budget, and notice that the proposed budget is on file in the office of the City Clerk are published at least two weeks in advance of the hearing. The complete proposed budget is placed on file for public inspection during office hours for a period of not less than one week prior to the public hearing. The proposed budget is also available for viewing on the City's official web site.

The budget is normally adopted based on an estimated property assessment provided in August by Weld County. The county provides the final certified tax assessment by December 10th. Prior to December 15th of each year, the City Council sets a tax levy and certifies this levy to the County Commissioners. Upon completion of two public hearings and the tax levy certification, the City Council adopts the budget and makes necessary appropriations by ordinance no later than December 15th, per the City of Greeley Charter.

Changes in Appropriations

The City Council may transfer any uncommitted, unreserved, unencumbered, or unexpended appropriations balance or portion thereof from one department, office, or agency to another except as otherwise provided in the Charter. The City Council may make additional appropriations during the fiscal year for unanticipated expenditures, but such additional appropriations shall not exceed the amount by which actual and anticipated revenues of the year are exceeding the revenues as estimated in the budget unless the appropriations are necessary to relieve an emergency endangering the public health, peace, or safety. The ordinance is put on the agenda as a public hearing on the first and second reading before it is formally adopted.

Accounting and Budgetary Basis

Basis of accounting refers to when revenues and expenditures or expenses are recognized in the accounts and reported in the financial statements. Basis of accounting relates to the timing of the measurements made, regardless of the measurement focus applied. For both accounting and budgetary purposes, the following basis is applied.

Governmental funds are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the government considers revenues to be available if they are collected within 180 days of the end of the current fiscal period. Expenditures are generally recorded when a liability is incurred, as under accrual accounting. However, debt service expenditures, as well as expenditures related to compensated absences, claims and judgments, are recorded only when payment is due.

Cigarette tax, sales tax, auto use tax, general use tax, franchise fees, royalties, special assessments, taxpayer-assessed taxes, interest revenue, and charges for services are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. Only the portion of special assessments receivable due within the current fiscal period is considered to be susceptible to accrual as revenue of the current period. All other revenue items are considered to be measurable and available only when cash is received.

Proprietary funds utilize the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

Budgets are adopted on a basis consistent with Generally Accepted Accounting Principles (GAAP), except for the following: proceeds from long-term debt are budgeted as revenue in the proprietary funds; note, lease and bond payments are budgeted as expenses in the proprietary funds; repayments of advances to/from other City funds are budgeted as revenues and expenditures/expenses in all fund types; purchases of fixed assets are budgeted as capital outlay expenses in the proprietary funds; and depreciation in proprietary funds is not budgeted.

The only Enterprise funds that fund depreciation are the Water, Sewer, and Stormwater funds. Depreciation may be shown in other funds for accounting purposes, and in most cases is not considered in the rate setting process.

BUDGET CALENDAR

PROCESS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Update department priorities and performance measures												
Budget Department Meetings, Budget Manual Distribution & Capital Prioritization & Scoring												
Departments Prepare Revenue & Expenditure Budgets												
Update Five Year Capital Improvement Plan												
City Manager Review												
Proposed Budget Preparation												
Citizen Budget Advisory Committee Presentation												
Council Workshop												
Public Hearings, Budget Approval & Mill Levy Set												

BUDGET DOCUMENT LAYOUT

The 2022 budget document layout has not changed from previous years. The Revenue section is different from the Comprehensive Annual Financial Report in that it does not distinguish between operating and non-operating revenue. The Other Financial Sources (Uses) section of the fund balance summaries include transfers, loan proceeds, bond proceeds, and like sources and uses. For budget purposes, all expected revenue is applied to the expected expenditures. The Total columns on the fund balance schedules are a multi-year presentation of the City of Greeley's total resources.

The following is a listing of sections and a description of the contents:

- The **Reader's Guide** contains information for reading and understanding the document, including policies, procedures, a budget calendar, department priorities and performance measures, organization chart, and core values.
- The **Personnel Summaries** tab describes the standard Full-Time Equivalents (FTE) count and changes in FTEs throughout the City. Various summary reports and a comparison of positions are also included.
- The **Fund Summaries** tabs have schedules that serve as organizational guides to fund structure and the departments that manage resources within the funds. The impact of the changes in the resources on the balance of each fund or fund type is included in the notes immediately preceding the schedules in the Fund Summaries section.

An account of the revenues, expenditures, balances of each fund, and the purpose of each fund are documented in subsequent sections. The objective of this type of organization is to show the most general, "big picture" information for quick reference and gradually break summaries down into more detailed information at the department, division, and program levels in later sections. Additional detail can be found in the Capital Improvement Plan.

- The **Department Summaries** tabs give a description of the purpose and responsibilities of each of the departments and divisions. Each department tab contains the following: an organization chart, a department budget summary, general description, and organization of the department, FTE summary, highlights, achievements, and Priority Based Budgeting allocation. Within each department, each of the following are documented for the divisions: purpose, division budget summary, and program description.

All narratives start with a summary of resources in both a historical and cross-indexed format. Financial and staffing data are provided in terms of the prior year, the current year, and future years. The first column reflects actual expenditures and revenues for the prior year. The second column details budgeted expenditures and revenues for the current year which is the year the future year's budgets are prepared. The first two columns provide historical comparative data for the future year's budget columns. The third column presents the proposed amounts budgeted for 2022. The reader is better able to understand the basis for the future year's budgets through comparison with historical expenditure and revenue patterns, as well as from workload and operational requirements as explained in the remainder of the narrative. The fourth and fifth columns identify the change from the 2022 proposed budget and the 2021 revised budget. Changes are expressed as a percentage for expenditures and revenue comparisons.

Note: 2020 actuals as displayed in this document are not final and may be adjusted upon the closing of the financial period and compilation of the Comprehensive Annual Financial Report.

CITY COUNCIL PRIORITIES



VISION FOR 2040

This council's 2040 vision and Greeley's future success will come from continued strategic foresight in the following areas:

Greeley Water: History, Heritage, Innovation

Leadership in Educational Excellence

A Dynamic and Resilient Economy

Your Home is Here

Greeley on the Move: Ample, Easy, Connected

We are Greeley Proud

We are One

Operational Excellence

The City Council is responsible for the priorities and vision that provide future success through strategic foresight. Each year the Greeley City Council reviews the vision statement and current realities to establish, update, and refine the strategic initiatives and council priorities that will maintain and improve the community. A diligent process of review, critique, and thoughtfulness by elected Council Members of current priorities and work programs ensure the holistic success of the community. The priorities have been completely revised from prior years transitioning from a focus on Image, Safety, Economic Health & Development, and Infrastructure & Growth. COVID-19 has slowed the expected and desired implementation of long-range planning, projects, and operational improvements as Council has had to adjust, rethink, and emphasize new programs and initiatives. The following section details the priorities and correlating objectives.

<https://greeleygov.com/government/cmo/work-program>

<https://greeleygov.com/services/lrp/imagine-greeley>

<https://greeleygov.com/government/council>

CITY COUNCIL PRIORITIES

CONTINUED

Greeley Water: History, Heritage, Innovation

In 2040, Greeley is Northern Colorado's leader in water resources. Building on its visionary and innovative heritage, Greeley prides itself on its ability to secure an abundant supply of high quality water that supports its vibrant economy. "Greeley Gold" drives sustainable growth and gives the City a competitive edge in the region.

- Acquire water when and where available at fiscally responsible prices for the circumstance.
- Secure and implement long term water storage solution.
- Develop and implement a strategy to inform the public on our water future.
- Increase water conservation efforts and build a culture of conservation.
- Implement a non-potable irrigation water system.

Leadership in Educational Excellence

In 2040, Greeley is a community known as a creative, educational and learning environment that fosters a symbiosis of personal development, commerce, and leadership. Lifelong learning is embedded in Greeley's values with comprehensive educational systems and opportunities. The City's integrated partnerships serve as a catalyst for innovation that supports a robust economy and fulfilling lifestyle.

- With UNC and Aims, develop and implement programs and strategies to enhance the college community's experience of being in Greeley—"Operation College Town".
- Strategize opportunities and mechanism for cross promotion of Greeley's Pre-K to 12 school and city achievements and successes.
- Increase higher education student internship opportunities with the City.

A Dynamic and Resilient Economy

In 2040, Greeley is a community of choice for forward-thinking commerce supporting a diverse, vibrant, and resilient economy. We incubate small local business and draw national and international industrial leaders. Our economy supports and sustains an attractive standard of living by providing a healthy continuum of employment opportunities for its residents. Further, our work environment fully complements and capitalizes on our world-class educational system.

- Implement the 2019 Economic Development Action Plan (Master Plan) that identifies industries, opportunities and businesses that will be our future.

Your Home is Here

In 2040, Greeley is a distinctive, character-rich community known for its high quality standard of living. Residents have access to an amazing variety of housing options including style, price, and location. Our unique neighborhoods are built around the village concept, featuring entertainment, retail, parks, and dining options within a central, walkable location.

- Evaluate the Strategic Housing Plan and implement it.
- Design a program that supports the identification of Greeley neighborhoods to ensure that they have a distinct identity.
- Put a plan in place to ensure that future development is built around the village concept.
- Explore expansion and marketing of the G-HOPE program and others that assist with home down payment assistance.

CITY COUNCIL PRIORITIES

CONTINUED

Greeley on the Move: Ample, Easy, Connected

In 2040, Greeley's economy continues to thrive as a result of thoughtful planning and be driven by multi-modal transportation that fosters interconnectedness, mobility, and access to Greeley's neighborhoods, amenities, and commerce.

- Mount a successful ballot initiative to support needed transportation improvements.
- Expand service model of Greeley Evans Transit (GET) commensurate with growth.
- Explore opportunities and partnerships for regional transportation (i.e. rail, transit, air).
- Streamline the process for identifying and improving existing streets infrastructure (i.e. sidewalks, curbs, gutters).
- Update the Transportation Master Plan, including bike routes and trails.
- Advocate for Greeley interchange improvements and implement as funding is available, including future public education on projects and status.

We are Greeley Proud

In 2040, Greeley celebrates 170 years of a rich agricultural and western heritage and hospitality, Greeley offers a wide variety of cultural events, amenities, and recreational opportunities that are attractive to people of all ages. We are a destination where residents experience Rocky Mountain vistas, fulfilling employment, excellent healthcare, unique activities to enjoy, and a strong sense of community.

- Implement myGreeley image campaign.
- Develop and implement a Master Tourism Plan to enhance tourism, including evaluation of roles for Visit Greeley and the City's image campaign to ensure alignment.
- Monitor and address odor emanating from the JBS beef plant.

We are One

In 2040, Greeley embraces the diverse cultures in our community by coming together and recognizing that we are all one! Our residents are engaged. Community events are well attended and residents revel in strong engagement in civic organizations, local boards and commissions. Agency partnerships unite us as one community.

Implement a comprehensive engagement plan focused on these values:

- Celebrate our cultural differences while maintaining the culture of one community.
- Continue to support and actively celebrate the diversity of the community.
- Grow participation in local events.
- Enhance Council participation in community events (with Clerk's Office notices).

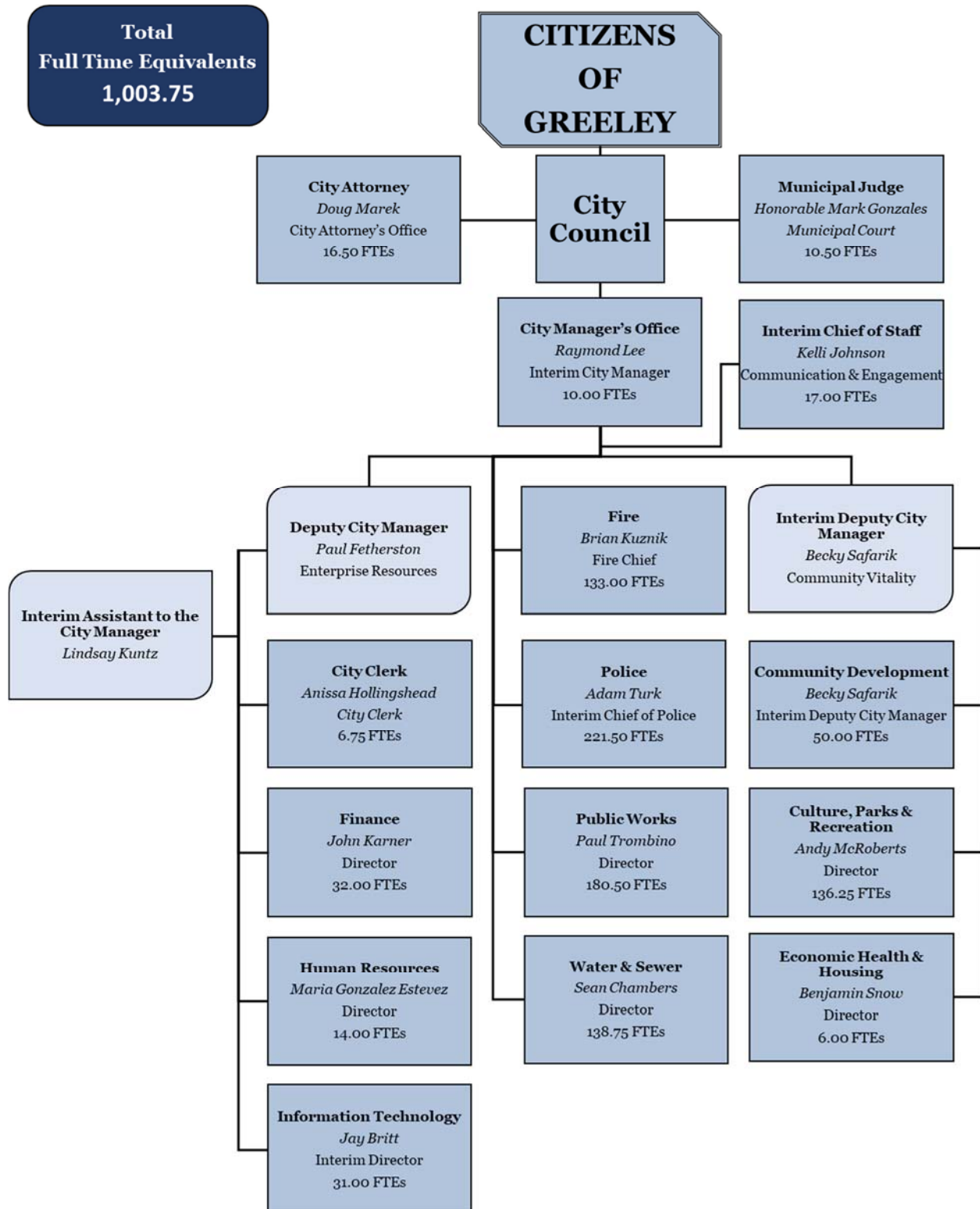
Operational Excellence

In 2040, Greeley is recognized as the State's municipal employer of choice. The organization is a benchmark for operational excellence and its residents benefit from fiscal responsibility, customer responsiveness, and transparency. Resident involvement in local government has never been stronger. Create comprehensive City services funding strategy. Streamline and improve processes for business permitting and licensing.

- Move forward to rethink the Human Resources function as a strategic partner.
- Implement interim plan for becoming an employer of choice with a focus on leadership, growth mindset, and change management.
- Develop a staff compensation plan to position Greeley as an employer of choice.
- Develop and conduct an evaluation of the City's customer responsiveness.



ORGANIZATIONAL CHART





DEBT SERVICE

Year	Governmental Funds		Enterprise Funds		Total Debt Service	
	Principal	Interest	Principal	Interest	Principal	Interest
2022	5,060,030	1,785,185	8,770,000	4,076,575	13,830,030	5,861,760
2023	2,983,270	1,575,266	9,185,000	3,656,925	12,168,270	5,232,191
2024	2,958,285	1,433,635	9,555,000	3,279,575	12,513,285	4,713,210
2025	1,845,000	1,287,656	8,850,000	2,873,594	10,695,000	4,161,250
2026	1,935,000	1,195,406	8,390,000	2,480,144	10,325,000	3,675,550
2027	2,035,000	1,098,656	6,990,000	2,102,344	9,025,000	3,201,000
2028	2,135,000	996,906	7,275,000	1,804,844	9,410,000	2,801,750
2029	2,230,000	905,456	5,135,000	1,494,694	7,365,000	2,400,150
2030	2,320,000	809,906	4,805,000	1,292,400	7,125,000	2,102,306
2031	2,420,000	710,456	4,980,000	1,117,038	7,400,000	1,827,494
2032	2,520,000	606,706	3,190,000	934,438	5,710,000	1,541,144
2033	2,625,000	505,906	3,320,000	803,506	5,945,000	1,309,413
2034	2,725,000	400,906	3,455,000	673,800	6,180,000	1,074,706
2035	2,840,000	291,906	3,590,000	538,150	6,430,000	830,056
2036	2,960,000	169,500	3,180,000	397,200	6,140,000	566,700
2037	870,000	80,700	3,310,000	270,000	4,180,000	350,700
2038	895,000	54,600	3,440,000	137,600	4,335,000	192,200
2039	925,000	27,750	-	-	925,000	27,750
Total	\$ 42,281,584	\$ 13,936,505	\$ 97,420,000	\$ 27,932,825	\$ 139,701,584	\$ 41,869,330

EFFECT OF DEBT ON FUTURE OPERATIONS

The following pages depict the total debt picture of the City for 2022 and future years. The annual debt service for 2022 is \$20.0 million, and the total outstanding debt is approximately \$148.1 million.

The legal debt margin is the amount remaining after the current general obligation indebtedness is subtracted from the maximum debt limit of the City. The Charter of the City restricts general obligation debt to 10% of the total assessed valuation of property within the city limits. The City has no General Obligation debt; therefore the City's legal debt margin is presently at 100% which means that approximately \$168.7 million could be legally borrowed.

The reduction of debt in future years provides several opportunities: 1) it allows more funding for capital purposes, 2) it allows more "cushion" for operating expenditures if economic conditions should take a downturn, 3) it provides a margin of fiscal flexibility if expenditure limitations should become excessively restrictive in relation to community needs, 4) it provides a method of downsizing if necessary, and 5) it increases the debt margin which could facilitate further borrowing for capital or community needs.

The City of Greeley has an "AA+" rating from Standard & Poor's and an "Aa2" rating from Moody's Investors Service on water revenue bond issues. The sales and use tax revenue bonds have been rated "AA" and "Aa3" respectively by the two rating agencies. Standard & Poor's has rated the sewer revenue bonds and the stormwater revenue bonds "AA+". More detailed information can be found in the Comprehensive Annual Financial Report (CAFR) found on the City's website: <https://greeleygov.com/government/finance/reports>.

The policy on debt management is presented in the Reader's Guide Section.

DEBT SERVICE

CONTINUED

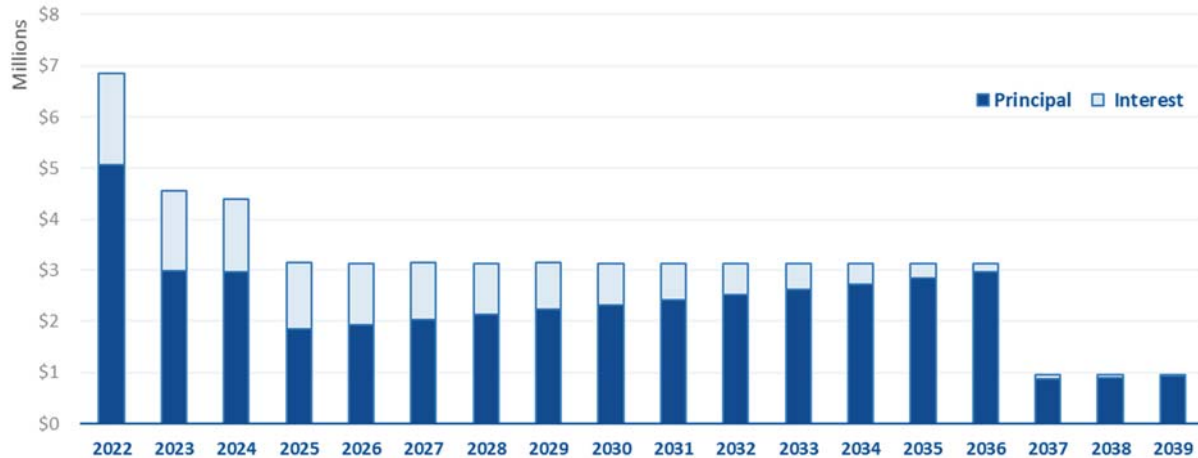
DESCRIPTION OF GOVERNMENTAL FUNDS DEBT:

The following section outlines the estimated governmental debt associated with the 2022 budget upon adoption.

Schedule of Estimated Debt Retirement 2022 Governmental Funds Long Term Debt

2022					
Description	Beginning Balance	Principal	Interest & Fees	Total Paid	Ending Balance
2012 Sales & Use Tax Refunding	2,395,000	2,395,000	95,800	2,490,800	-
2014 Sales Tax Refunding	4,720,000	1,495,000	236,000	1,731,000	3,225,000
2016 Fire Truck Lease	125,900	100,498	1,557	102,055	25,402
2016 Dump Truck Lease	84,200	67,211	1,041	68,252	16,988
2016 Certificates of Participation: City Center	23,695,000	835,000	1,013,150	1,848,150	22,860,000
2017 Fire Truck Lease	226,972	99,551	4,005	103,556	127,421
2017 Dump Truck Lease	154,514	67,770	2,726	70,497	86,743
2019 Certificates of Participation: Fire Stations #2 & #6	10,880,000	-	430,906	430,906	10,880,000
Total	\$ 42,281,584	\$ 5,060,030	\$ 1,785,185	\$ 6,845,216	\$ 37,221,554

The below chart illustrates the estimated governmental debt payments, principal, and interest for the years 2022-2039. Debt for enterprise obligations steadily declines as various bonds and financial obligations are retired.



Notes and Contracts:

2016 Dump Truck Lease: On May 23, 2016, the City entered into a seven-year lease agreement to finance the purchase of two International 7600 dump trucks totaling \$450,526 with a zero down payment. The note is funded by the Equipment Replacement Fund with annual payments of \$17,063 to \$68,252.

2016 Fire Truck Lease: On May 23, 2016, the City entered into a seven-year lease agreement to finance the purchase of an SVI Fire Engine for a total of \$673,650. The note is funded by the Fire Equipment/Acquisition Replacement Fund with annual payments from \$25,514 to \$102,055.

2017 Equipment Lease: On June 30, 2017, the City entered into a seven-year lease agreement to finance the purchase of a wheel loader, tractor, and bucket truck for \$450,526 with a zero down payment. The note is funded by the Equipment Replacement Fund with annual payments of \$17,624 to \$70,497.

DEBT SERVICE

CONTINUED

2017 Fire Truck Lease: On June 30, 2017, the City entered into a seven-year lease agreement to finance the purchase of an SVI Fire Engine for a total of \$675,800. The note is funded by the Fire Equipment/Acquisition Replacement Fund with annual payments from \$25,889 to \$103,556.

Revenue Bonds:

2012 Sales & Use Tax Refunding: In 2012 the City issued \$18,700,000 in Sales and Use Tax revenue bonds. This revenue bond issue is payable from the City's 3.46% sales and use tax and does not include the City's sales tax on food. These were issued for the purpose of partially refunding the 2003 Sales and Use Tax bonds. Payments are due in semi-annual installments each April and October ranging from \$343,947 in 2012 to \$2,490,800 in 2022. The interest coupon rates range from 2.0% to 4.0%.

2014 Sales & Use Tax Refunding: In 2014 the City issued \$12,395,000 in Sales and Use Tax revenue bonds. This revenue bond issue is payable from the City's 3.0% sales and use tax, plus the 0.16% sales and use tax increase which became effective on January 1, 2005, but does not include the 0.30% sales and use tax increase which became effective on January 1, 2003. These were issued for the purpose of refunding substantially all of the outstanding portions of the 2005 Sales and Use Tax bonds. Payments are due in semi-annual installments each April and October ranging from \$461,521 in 2015 to \$1,737,750 in 2024. The interest coupon rates range from 3.0% to 5.0%.

Certificates of Participation:

2016 COPs: On September 20, 2016, the City entered into a 20-year agreement to finance the construction and equipping a fire station and a municipal building for a total of \$25,545,000. Payments range from \$213,385 in 2016 to \$2,178,450 in 2036. The interest coupon rates range from 2.0% to 5.0%.

2019 COPs: On November 25, 2019, the City entered into a 20-year agreement to finance the construction of two fire stations and a fire engine for a total of \$10,880,000. Payments range from \$428,513 in 2020 to \$952,750 in 2039. The interest coupon rates range from 2.0% to 5.0%.

DEBT SERVICE

CONTINUED

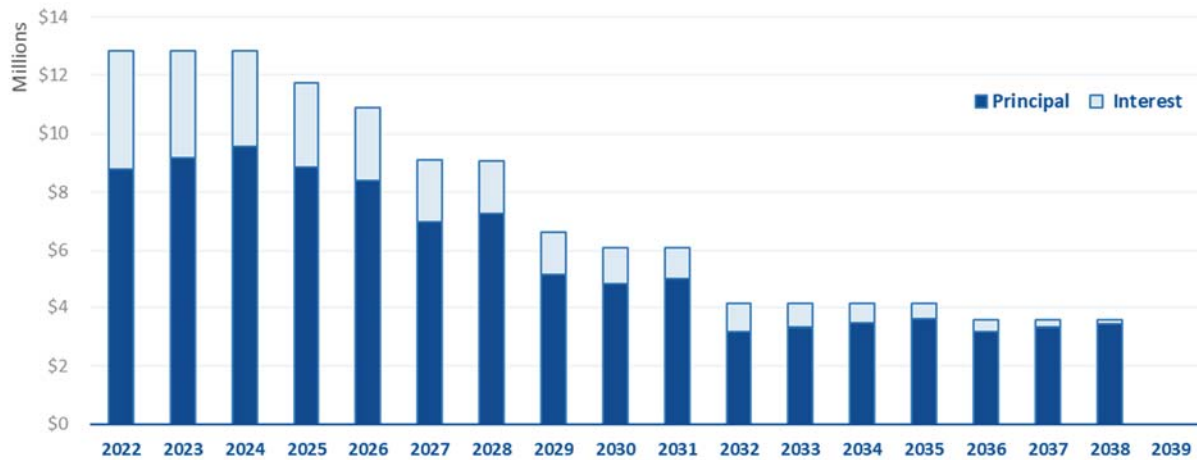
DESCRIPTION OF ENTERPRISE FUNDS DEBT:

The following section outlines the estimated enterprise debt associated with the 2022 budget upon adoption.

Schedule of Estimated Debt Retirement 2022 Enterprise Funds Long Term Debt

2022					
Description	Beginning Balance	Principal	Interest & Fees	Total Paid	Ending Balance
Water Debt Service Fund					
2012 Water Revenue Bonds	16,920,000	1,480,000	496,381	1,976,381	15,440,000
2014 Water Revenue Bonds	3,125,000	990,000	134,350	1,124,350	2,135,000
2016 Water Revenue Bonds	21,945,000	3,150,000	1,097,250	4,247,250	18,795,000
2018 Water Revenue Bonds	35,885,000	2,030,000	1,547,700	3,577,700	33,855,000
Water Debt Service Fund Total	\$77,875,000	\$7,650,000	\$3,275,681	\$10,925,681	\$70,225,000
Sewer Debt Service Fund					
2015 Sewer Revenue Bonds	3,670,000	405,000	128,244	533,244	3,265,000
2018 Sewer Revenue Bonds	9,890,000	390,000	450,600	840,600	9,500,000
Sewer Debt Service Fund Total	\$13,560,000	\$795,000	\$578,844	\$1,373,844	\$12,765,000
Stormwater Debt Service Fund					
2015 Stormwater Revenue Bonds	5,985,000	325,000	222,050	547,050	5,660,000
Stormwater Debt Service Fund Total	\$5,985,000	\$325,000	\$222,050	\$547,050	\$5,660,000

The below chart illustrates the estimated enterprise debt payments, principal, and interest for the years 2022-2039. Debt for enterprise obligations steadily declines as various bonds and financial obligations are retired.



DEBT SERVICE

CONTINUED

Revenue Bonds:

2012 Water Revenue: The City issued \$31,275,000 in Water Revenue Bonds on January 26, 2012; they are due in semi-annual payments each February and August ranging from \$1,377,563 in 2012 to \$1,972,450 in 2031. The interest on these bonds ranges from 2.0% to 4.0%. The bond proceeds were used for the purpose of financing capital improvements to the City's water system including the acquisition of water rights and refunding the City's outstanding Water Revenue Bonds, Series June 1, 1999.

2014 Water Revenue: The City issued \$9,145,000 in Water Revenue bonds in December 2014; they are due in semi-annual payments each February and August ranging from \$1,179,000 in 2015 to \$1,127,850 in 2024. The interest on these bonds ranges from 3.0% to 5.0%. The bond proceeds were used for the purpose of refunding the outstanding maturities of the 2004 Water Revenue bonds.

2015 Sewer Revenue: The City issued \$5,895,000 in Sewer Revenue bonds in June 2015; they are due in semi-annual payments each February and August ranging from \$528,844 in 2018 to \$533,244 in 2022. The interest coupon rates on these bonds range from 2.0% to 4.0%. The bond proceeds were used for improvements and additions to the municipal sanitary sewer system.

2015 Stormwater Revenue: The City issued \$7,680,000 in Stormwater Revenue bonds in July 2015; they are due in semi-annual payments each February and August ranging from \$544,088 in 2031 to \$548,950 in 2028. The interest coupon rates on these bonds range from 2.0% to 5.0%. The bond proceeds were used for the development and improvement of the stormwater system.

2016 Water Revenue: The City issued \$32,565,000 in Water Revenue bonds in March 2016; they are due in semi-annual payments each February and August ranging from \$1,179,000 in 2015 to \$1,127,850 in 2024. The interest on these bonds ranges from 3.0% to 5.0%. The bond proceeds were used for the purpose of refunding the outstanding maturities of the 2004 Water Revenue bonds.

2018 Sewer Revenue: The City issued \$11,065,000 in Sewer Revenue bonds in October 2018; they are due in semi-annual payments each February and August ranging from \$835,600 in 2030 to \$840,600 in 2022. The interest coupon rates on these bonds range from 4.0% to 5.0%. The bond proceeds are for the purpose of funding the Nitrification Project Phase II.

2018 Water Revenue: The City issued \$41,920,000 in Water Revenue bonds in October 2018; they are due in semi-annual payments each February and August ranging from \$2,739,200 in 2036 to \$3,582,400 in 2025. The interest coupon rates on these bonds range from 4.0% to 5.0%. The bond proceeds are for the purpose of completing improvements to the Bellvue water treatment plant.

DEBT SERVICE

CONTINUED

Schedule of Estimated Interfund Loan Repayment 2022 Estimated Interfund Loan Debt

2022					
Description	Beginning Balance	Principal	Interest & Fees	Total Paid	Ending Balance
Conference Center Development Fund					
Health Fund (2016)	913,556	-	23,752	23,752	913,556
Workers' Comp Fund (2016)	913,556	-	23,752	23,752	913,556
Designated Revenue Fund (2016)	891,209	-	23,171	23,171	891,209
General Fund (2016)	5,211,787	-	135,506	135,506	5,211,787
Conference Center Develop. Fund Total	\$7,930,107	-	\$206,183	\$206,183	\$7,930,107
Fire Acquisition & Replacement Fund					
Workers Compensation Fund (2015)	139,486	27,897	703	28,601	111,589
Fire Acquisition & Replacement Fund Total	139,486	\$27,897	\$703	\$28,601	\$111,589
Golf Course Fund					
Cemetery Endowment Fund (2006)	320,000	80,000	16,000	96,000	240,000
Golf Course Fund Total	\$320,000	\$80,000	\$16,000	\$96,000	\$240,000
Total	\$8,389,593	\$107,897	\$222,886	\$330,783	\$8,281,696

DESCRIPTION OF INTERFUND LOAN TRANSACTIONS:

On October 7, 2016, the Health Fund loaned the Conference Center Development Fund \$1,000,000 for the downtown conference center. Payment is due quarterly at a 2.6% interest rate, interest started to accrue on October 7, 2016. The balance of the loan on December 31st, 2020 is \$914,568.

On October 7, 2016, the Workers' Compensation Fund loaned the Conference Center Development Fund \$1,000,000 for the downtown conference center. Payment is due quarterly at a 2.6% interest rate, interest started to accrue on October 7, 2016. The balance of the loan on December 31st, 2020 is \$914,568.

On October 7, 2016, the Designated Revenue Fund loaned the Conference Center Development Fund \$1,000,000 for the downtown conference center. Payment is due quarterly at a 2.6% interest rate, interest started to accrue on October 7, 2016. The balance of the loan on December 31st, 2020 is \$892,651.

On October 7, 2016, the General Fund loaned the Conference Center Development Fund \$5,638,000 for the downtown conference center. Payment is due quarterly at a 2.6% interest rate, interest started to accrue on October 7, 2016. The balance of the loan on December 31st, 2020 is \$5,210,664.

On December 1, 2015, the Workers' Compensation Fund loaned the Fire Equipment Acquisition Replacement Fund \$781,126 for equipment purchases. Payment is due quarterly at a 2% interest rate, interest started to accrue on December 1, 2015. The balance of the loan on December 31st, 2020 is \$251,076.

On December 31, 2005, the Cemetery Endowment Fund loaned the Golf Course Fund \$800,000 for operations. As positive cash balances accrue, those balances will be used to repay the loan in full plus 5% interest. Interest began to accrue on January 1, 2006. The balance of the loan on December 31, 2020, is \$400,000.

DEBT SERVICE

CONTINUED

COMPUTATION OF LEGAL DEBT MARGIN

2021 Assessed Valuation (Based on September 2021 Certification Letter)	
[For reference 2020 Final Assessed Valuation \$1,621,242,130]	<u>\$ 1,686,750,440</u>
Percent	10.0%
Debt Limit (10% of assessed valuation)	<u>\$ 168,675,044</u>
<i>Amount of debt applicable to debt limit (outstanding at 12/31/2021)</i>	
Total Bonded Debt	104,535,000
Other Debt	<u>43,556,178</u>
	<u>\$ 148,091,178</u>
Debt Classification (less)	
Installments Notes & Contracts	\$8,981,178
Sales and Use Tax Revenue Bonds	7,115,000
Sewer, Water, & Stormwater Revenue Bonds	\$97,420,000
Certificates of Participation	<u>34,575,000</u>
	<u>\$ 148,091,178</u>
Total Net Debt Applicable to Debt Limit	<u>\$ -</u>
Legal Debt Margin	<u>\$ 168,675,044</u>

Excerpt from Section 5-18 of the Home Rule Charter of the City of Greeley: The City Council shall have the power to issue general obligation bonds of the city for any public capital purpose, upon a majority vote of the qualified electors of the city at any special or general election, except that water or sewer bonds may be issued without the vote of the people. The total outstanding general obligation indebtedness of the city, other than for water or sewer bonds, shall not at any time exceed ten (10) per centum of the assessment for tax purposes. Securities issued for water or sewer purposes may be issued by Council action without an election and shall not be included in the determination of such debt limitation. General obligation bonds and securities issued for water and sewer purposes shall mature and be payable as provided by the ordinance authorizing the issuance of said bonds or securities.



FTE SUMMARY BY DEPARTMENT

Below is a ten-year overview of FTEs transitioned from 2013 to 2022, displaying the FTEs by the department and applicable divisions. Major changes have been identified by a letter in the left-hand column, further explained at the end of this section.

Department/Division	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Proposed
City Attorney										
Law	11.75	11.75	13.00	13.00	13.00	13.00	14.00	14.00	15.50	16.50
Total City Attorney's Office	11.75	11.75	13.00	13.00	13.00	13.00	14.00	14.00	15.50	16.50
City Clerk										
Legislative	4.50	4.50	4.50	4.50	5.50	5.50	6.50	6.50	6.50	6.75
Total City Clerk's Office	4.50	4.50	4.50	4.50	5.50	5.50	6.50	6.50	6.50	6.75
City Manager										
^h City Manager's Office	5.00	5.00	5.00	5.00	5.00	5.00	4.00	4.00	5.00	6.00
^h GATV/Channel 8	1.00	1.00	1.00	1.00	1.00	1.00	-	-	-	-
^h Public Information	3.00	3.00	5.00	5.00	5.00	6.00	-	-	-	-
^f Real Estate	-	-	-	-	-	-	3.00	4.00	4.00	4.00
ⁱ Urban Renewal Authority	4.00	4.00	4.00	4.00	4.00	4.00	-	-	-	-
Total City Manager's Office	13.00	13.00	15.00	15.00	15.00	16.00	7.00	8.00	9.00	10.00
Communication & Engagement										
GATV/Channel 8	-	-	-	-	-	-	1.00	1.00	1.00	1.00
^h Marketing	-	-	-	-	-	-	5.75	5.75	-	-
Public Information	-	-	-	-	-	-	9.00	10.00	15.00	16.00
Total Communication & Engagement	-	-	-	-	-	-	15.75	16.75	16.00	17.00
Community Development										
Building Inspection	7.00	9.00	9.00	9.00	9.00	9.00	9.00	10.00	9.00	9.00
Code Compliance	8.00	9.00	8.00	7.00	7.00	6.00	6.00	6.00	6.00	7.00
^{b,c} Economic Development	1.00	1.00	-	-	-	-	-	-	-	-
^g Engineering Development Review	3.50	4.50	5.50	5.50	5.50	18.00	19.00	19.00	18.00	19.00
Planning	8.00	10.00	11.00	11.00	11.50	12.00	14.00	14.00	15.00	15.00
Total Community Development	27.50	33.50	33.50	32.50	33.00	45.00	48.00	49.00	48.00	50.00
Culture, Parks & Recreation										
Administration	5.75	6.00	6.50	6.50	6.50	6.75	6.75	6.75	9.50	9.50
^k Cemetery	-	-	-	-	-	-	-	-	5.00	5.00
Culture & Public Art	11.00	11.00	11.75	11.75	11.75	11.75	11.75	11.75	11.00	11.00
Golf Courses	8.00	8.00	8.00	8.00	8.00	9.00	9.00	9.00	9.00	9.00
Island Grove	14.00	14.00	14.00	14.00	14.00	14.00	15.00	17.00	17.00	17.00
^h Marketing	6.50	6.50	5.75	5.75	5.75	4.75	-	-	-	-
Museums	11.00	11.00	12.25	12.25	11.50	11.50	11.75	11.75	8.00	8.00
^j Natural Areas & Trails	-	-	-	-	-	-	6.00	6.00	6.00	5.75
^{j,k} Parks	34.75	38.75	39.75	40.75	41.75	43.50	41.00	43.00	38.00	38.00
Recreation	29.75	29.75	29.50	29.50	29.50	29.50	35.00	35.00	31.00	33.00
Youth Enrichment	6.50	6.00	6.00	6.00	6.00	6.00	-	-	-	-
Total Culture, Parks, & Recreation	127.25	131.00	133.50	134.50	134.75	136.75	136.25	140.25	134.50	136.25
Economic Health & Housing										
^c Economic Development	-	-	3.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00
ⁱ Urban Renewal Authority	-	-	-	-	-	-	3.00	3.00	3.00	3.00
Total Economic Health & Housing	-	-	3.00	3.00	3.00	3.00	6.00	7.00	6.00	6.00

FTE SUMMARY BY DEPARTMENT

CONTINUED

Department/Division	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Proposed
Finance										
Accounting Operations	-	-	-	-	-	-	6.00	6.00	6.00	6.00
Budget & Revenue Compliance	-	-	-	-	-	-	2.00	4.00	4.00	4.00
Cash Operations & Utility Billing	-	-	-	-	-	-	7.50	7.50	8.00	8.00
Financial Reporting	-	-	-	-	-	-	4.00	4.00	4.00	4.00
Financial Services	20.25	20.25	22.50	23.50	25.50	22.50	-	-	-	-
Fiscal Management	2.00	2.00	2.00	2.00	2.00	3.00	1.00	1.00	2.00	2.00
Purchasing	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Real Estate	-	-	-	-	-	3.00	-	-	-	-
Sales Tax Administration	-	-	-	-	-	-	5.00	5.00	5.00	5.00
Total Finance	26.25	26.25	28.50	28.50	30.50	31.50	28.50	30.50	32.00	32.00
Fire										
Administration	2.00	2.00	2.00	2.00	2.00	4.00	4.00	3.00	6.00	5.00
Community Safety	3.00	3.00	4.00	4.00	4.00	3.00	4.00	4.00	5.00	5.00
Operations	97.00	98.00	98.00	98.00	98.00	101.00	122.00	122.00	120.00	119.00
Training	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Total Fire	106.00	107.00	108.00	108.00	108.00	112.00	134.00	133.00	135.00	133.00
Human Resources										
Health	2.05	2.30	2.30	2.30	2.05	2.05	2.50	2.50	1.70	1.70
Liability	1.30	1.30	1.30	1.30	1.30	1.30	1.38	1.38	1.25	1.25
Operations	4.85	6.10	6.10	6.10	7.10	7.10	6.57	6.57	9.80	9.80
Worker's Compensation	0.56	0.55	0.55	0.55	0.55	0.55	0.55	0.55	1.25	1.25
Total Human Resources	8.75	9.25	10.25	10.25	11.00	11.00	11.00	11.00	14.00	14.00
Information Technology										
Information Technology	21.75	22.75	24.00	24.00	25.00	26.00	27.00	30.00	30.00	31.00
Total Information Technology	21.75	22.75	24.00	24.00	25.00	26.00	27.00	30.00	30.00	31.00
Municipal Court										
Municipal Court	8.25	8.25	8.25	9.25	9.25	9.25	9.25	9.25	8.50	9.50
Ticket Collection	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Municipal Court	9.25	9.25	9.25	10.25	10.25	10.25	10.25	10.25	9.50	10.50
Police										
^a Investigations	24.50	24.50	24.50	-	-	-	-	-	-	-
^d Operations	-	-	-	164.00	167.00	169.00	130.00	133.00	132.00	138.00
Parking Enforcement	2.00	2.00	2.00	2.00	2.00	2.00	-	-	-	-
^e Patrol	117.50	122.50	122.50	-	-	-	-	-	-	-
Support Services	49.50	52.50	52.50	38.50	38.50	39.50	82.50	86.50	87.50	83.50
Total Police	193.50	201.50	201.50	204.50	207.50	210.50	212.50	219.50	219.50	221.50
Public Works										
Administration	2.90	2.90	2.90	2.90	3.90	3.90	2.90	2.90	5.90	5.90
^d Engineering	19.50	19.50	22.50	23.50	24.50	17.00	18.00	18.00	20.00	21.00
Equipment Maintenance	14.25	14.50	15.50	9.00	9.00	9.00	9.00	9.00	9.00	10.00
Facilities Management	17.00	18.00	18.00	19.00	19.00	19.00	19.00	23.00	23.00	23.00
Parking Enforcement	-	-	-	-	-	-	2.00	2.00	2.20	2.20
Stormwater	17.10	20.10	20.10	20.10	20.10	20.10	20.10	20.10	22.10	23.10
Street Maintenance	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00	22.00
Transit Services	35.30	36.30	37.50	50.00	50.00	50.00	55.50	55.50	55.50	55.50
Transportation Services	16.00	16.00	16.00	16.00	16.00	17.00	17.00	17.00	17.80	17.80
Total Public Works	144.05	149.30	154.50	162.50	164.50	158.00	165.50	169.50	177.50	180.50

FTE SUMMARY BY DEPARTMENT

CONTINUED

Department/Division	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Proposed
Sewer										
^g Sewer General Management	4.00	4.00	4.00	4.20	4.60	3.10	4.10	4.10	4.10	3.80
Wastewater Collection	13.50	13.50	13.50	12.50	11.50	11.00	11.00	11.00	11.50	11.50
Wastewater Treatment	23.00	23.00	23.00	22.50	23.00	23.50	23.50	23.50	23.00	23.00
Total Sewer	40.50	40.50	40.50	39.20	39.10	37.60	38.60	38.60	38.60	38.30
Water										
Water General Management	13.30	13.30	14.30	15.10	14.70	13.20	11.90	14.90	14.65	15.55
Water Transmission/Distribution	30.25	31.25	31.50	29.50	33.00	33.00	34.75	35.75	37.50	40.50
Water Treatment and Supply	35.45	35.45	35.45	37.95	34.95	34.95	35.50	35.50	36.00	44.40
Total Water	79.00	80.00	81.25	82.55	82.65	81.15	82.15	86.15	88.15	100.45
Grand Total Regular Positions	813.05	839.55	860.25	872.25	882.75	897.25	943.00	970.00	979.75	1,003.75

^a In 2013 the Police Dispatch (54 FTEs) was moved from the Police Department to Weld County.

^b In 2013 Economic Development was moved from the City Manager's Office to Community Development.

^c In 2015 Economic Development was moved from Community Development and was established as its own department.

^d In 2016 the Police Department created the Operations division.

^e In 2016 the Police Department reclassified the Patrol division into Operations.

^f In 2018 Real Estate was moved to report to Finance Director. Fiscal Management moved to Fiscal Services.

^g In 2018 Civil Inspections were moved to Engineering Development Review from Water, Sewer, and Engineering.

^h In 2019 Communications Services Department created from City Manager's Office and Marketing.

ⁱ In 2019 Urban Renewal moved to Economic Development.

^j In 2019 Natural Resource Division created from Parks Division, renamed to Natural Areas & Trails in 2020.

^k In 2020 the Cemetery division was distinguished from the Parks Division.

DELAYED POSITIONS

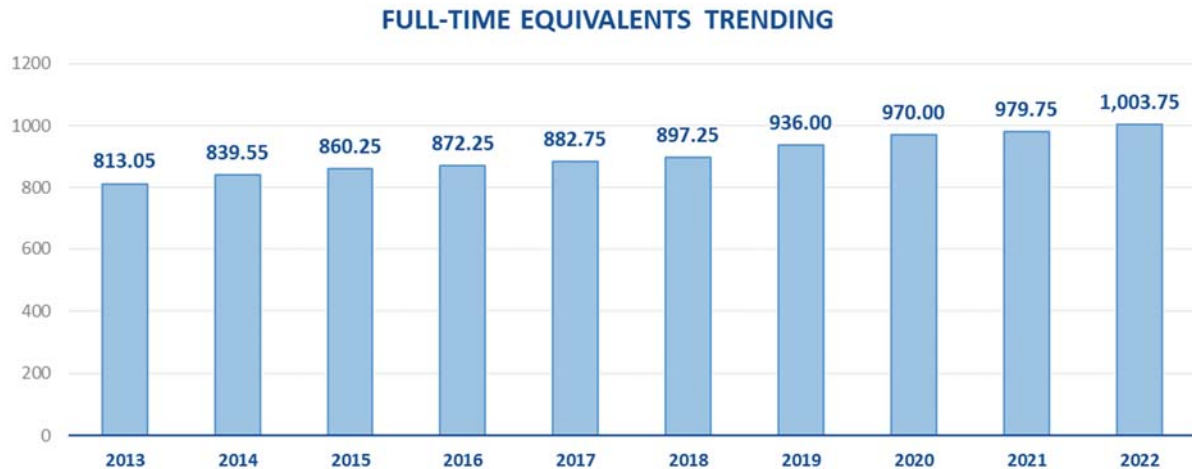
The table below identifies delayed hiring for the following positions due to facility closures and current circumstances. The total FTEs associated with these positions are included in the 1,003.75 Citywide Full-Time Equivalents, however, only the prorated amount associated with these positions is included in the actual budgeted expenditures.

Description	Department	Start Date
Division Chief of Support Services	Fire Department	7/1/2022



DISCUSSION OF FTE CHANGES

There has been an increase of 24.00 full-time equivalents from 979.75 FTEs associated with the revised 2021 to the proposed 2022 budget totaling 1,003.75 FTEs.



The transition from 979.75 full-time equivalents as part of the revised 2021 budget to 1,003.75 FTEs as part of the proposed 2022 budget are listed below, including both the department and position. A total of 14.00 FTEs have been added during 2021 after the 2021 revised budget was adopted, identified as mid-year adjustments. A total of 3.25 FTEs have been reduced from the 2021 revised budget, with 27.25 positions created, for a total increase of 24.00 FTEs from the 2021 revised budget to the 2022 Budget.

2021 Full-Time Equivalents 965.75

Mid Year Adjustments

Assistant City Manager	1.00
City Manager's Office	1.00
Deputy Finance Director	1.00
Finance	1.00
Community Paramedic	1.00
Fire Department	1.00
Human Resource Business Partner	1.00
Human Resource Deputy Director	1.00
Human Resources Additions	2.00
Asset Manager	1.00
Asset Specialist	1.00
Assistant City Engineer	1.00
Budget Technician	1.00
Capital Projects Planner	1.00
Equipment Operator II	2.00
Senior Administrative Specialist	1.00
Traffic Signal Technician	1.00
Public Works	9.00

Total Mid Year Adjustments 14.00

DISCUSSION OF FTE CHANGES

CONTINUED

Reductions

Trail Manager	-0.25
Culture, Parks, & Recreation Reductions	-0.25

Fire Fighter	-3.00
Fire Department	-3.00

Total Reductions	-3.25
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Additions

Paralegal	1.00
City Attorney's Office Additions	1.00

Administrative Specialist II	0.25
City Clerk's Office Additions	0.25

Assistant City Manager	1.00
Office of Human Affairs Director*	0.00
City Manager's Office	1.00

Web Developer	1.00
Communication & Engagement Additions	1.00

Construction Inspector	1.00
Code Compliance Inspector	1.00
Community Development Additions	2.00

Customer Service Representative	1.00
Recreation Coordinator II	1.00
Culture, Parks, & Recreation Additions	2.00

PC Technician	1.00
Information Technology Additions	1.00

Fire Captain Specialist	1.00
Fire Department Additions	1.00

DISCUSSION OF FTE CHANGES

CONTINUED

Court Marshall	1.00	
Municipal Court Additions	1.00	
Police Officer	2.00	
Police Department Additions	2.00	
Engineering Technician	1.00	
Equipment Maintenance Mechanic	1.00	
Water Quality & Regulatory Compliance Manager	1.00	
Public Works Additions	3.00	
Civil Engineer II	1.00	
Lead Plant Operator	1.00	
Maintenance Mechanic	1.00	
Plant Operator A: Water	3.00	
Plant Operator C: Water	1.00	
Water Quality Analyst	1.00	
Water Resource Engineer IV	1.00	
Utility Locator	3.00	
Water Additions	12.00	
Total Additions	27.25	
2022 Full-Time Equivalents	1,003.75	

* Originally included in the first budget book version presented to Council but this position will be a contracted position and is therefore no longer included in the total full-time equivalent count for the City Manager's Office.



SUMMARY OF ADDITIONS & REQUESTS



FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ASSESSMENT & COMPENSATION IMPLEMENTATIONS	NON-DEPARTMENTAL	\$ 1,500,000
UCCC OPERATIONS	CULTURE, PARKS, & RECREATION	623,548
ASSISTANT CITY MANAGER	CITY MANAGER'S OFFICE	229,504
TWO POLICE OFFICERS	POLICE	222,596
BODY WORN CAMERAS & TASERS	POLICE	205,457
WELD COUNTY DISPATCH COSTS	POLICE	167,068
ACTIVE ADULT CENTER OPERATIONS	CULTURE, PARKS, & RECREATION	166,813
FAMILY FUNPLEX OPERATIONS	CULTURE, PARKS, & RECREATION	163,864
RODARTE COMMUNITY CENTER OPERATIONS	CULTURE, PARKS, & RECREATION	154,756
RECREATION ADMINISTRATION	CULTURE, PARKS, & RECREATION	150,126
CREDIT CARD TRANSACTION FEE CHARGES	COMMUNITY DEVELOPMENT	150,000
FUNDING AGREEMENT FOR CO-RESPONDERS	POLICE	130,000
RECREATION SPORTS PROGRAMS	CULTURE, PARKS, & RECREATION	128,013
CODE COMPLIANCE INSPECTOR	COMMUNITY DEVELOPMENT	116,304
MUNICIPAL COURT MARSHAL	MUNICIPAL COURT	116,051
ICE HAUS OPERATIONS	CULTURE, PARKS, & RECREATION	103,081
RECREATION CENTER OPERATIONS	CULTURE, PARKS, & RECREATION	102,942
PARALEGAL (OFFICE MANAGER)	CITY ATTORNEY'S OFFICE	98,269
HISTORIC SITES OPERATIONS	CULTURE, PARKS, & RECREATION	97,248
SUPPORT SERVICES ASSISTANT DIVISION CHIEF (SIX MONTHS) & EQUIPMENT	FIRE	95,952
WEB DEVELOPER	COMMUNICATION & ENGAGEMENT	95,794
EQUIPMENT MAINTENANCE MECHANIC	PUBLIC WORKS	90,549
DEPARTMENT EMPLOYEE ENGAGEMENT	NON-DEPARTMENTAL	85,000
GREELEY HISTORY MUSEUM	CULTURE, PARKS, & RECREATION	75,171
DEVELOPMENT REVIEW CONTRACT STAFFING	COMMUNITY DEVELOPMENT	75,000
COMPUTER (PC) TECHNICIAN	INFORMATION TECHNOLOGY	69,318
CITY CLERK'S OFFICE DEPARTMENT REORGANIZATION	CITY CLERK'S OFFICE	53,933
OUTDOOR POOLS (AQUATICS) OPERATIONS	CULTURE, PARKS, & RECREATION	52,005
EMERALD ASH BORE MANAGEMENT	CULTURE, PARKS, & RECREATION	50,000
PUBLIC PARTICIPATION & ENGAGEMENT SOFTWARE PLATFORM	COMMUNICATION & ENGAGEMENT	45,000
HUMAN RESOURCES DEPARTMENT REORGANIZATION	HUMAN RESOURCES	40,180
ORANIZATIONAL SUPPORT	NON-DEPARTMENTAL	30,000
CARDIOPULMONARY RESUSCITATION (CPR) CERTIFICATION/TRAINING & SPONSORSHIP ASSISTANT	CULTURE, PARKS, & RECREATION	23,808
PUBLIC ART TOINTON GALLERY	CULTURE, PARKS, & RECREATION	23,684
POUDRE TRAIL CORE OPERATIONAL PRIORITIES	CULTURE, PARKS, & RECREATION	14,000
REQUIRED WESTLAW IMPROVEMENTS & FEES	CITY ATTORNEY'S OFFICE	12,893
FARMERS MARKET	CULTURE, PARKS, & RECREATION	9,300
EXTERNAL POSTAGE	COMMUNICATION & ENGAGEMENT	8,680
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 5,575,907

SUMMARY OF ADDITIONS & REQUESTS

CONTINUED

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
PROGRAM MANAGEMENT	NON-DEPARTMENTAL	\$ 3,000,000
EQUIPMENT REPLACEMENT FUNDING	NON-DEPARTMENTAL	500,000
PROFESSIONAL SERVICES	FINANCE	250,000
YEAR-END AUDIT & FINANCIAL REPORT PREPARATION SERVICES	NON-DEPARTMENTAL	250,000
STRATEGIC MASTER PLAN & COMMUNITY NEEDS ASSESSMENT	CULTURE, PARKS, & RECREATION	250,000
BOOMERANG STORMWATER CONSTRUCTION	CULTURE, PARKS, & RECREATION	214,500
POLICE EQUIPMENT	POLICE	213,500
OFFICE OF HUMAN AFFAIRS CONTRACT	NON-DEPARTMENTAL	151,598
WETLAND MITIGATION & RESTORATION FEASIBILITY STUDY	CULTURE, PARKS, & RECREATION	150,000
POLICE ASSESSMENT	NON-DEPARTMENTAL	150,000
COMMUNITY DEVELOPMENT & ECONOMIC HEALTH & HOUSING ASSESSMENTS	NON-DEPARTMENTAL	140,000
POLLING & COMMUNICATIONS	CITY MANAGER'S OFFICE	130,000
TWO-YEAR TEMPORARY CIVIL INSPECTOR FOR CITY-WIDE BROADBAND INSTALLATION	COMMUNITY DEVELOPMENT	128,172
INFORMATION TECHNOLOGY ASSESSMENT	NON-DEPARTMENTAL	100,000
ONE FIRE VEHICLE	FIRE	46,000
EMERGENCY MANAGEMENT PROGRAM ASSESSMENT	FIRE	45,000
BESTWAY PROPERTY COLD-MIX STORAGE FABRIC COVER	PUBLIC WORKS	35,000
TRAINING & CONFERENCES	FINANCE	15,000
TRAINING & EQUIPMENT	CITY ATTORNEY'S OFFICE	14,357
TRAINING & CERTIFICATION	COMMUNITY DEVELOPMENT	10,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 5,793,127

SUMMARY OF ADDITIONS & REQUESTS

CONTINUED

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
PARK MAINTENANCE	CULTURE, PARKS, & RECREATION	\$ 368,100
MEDIANS & ROW MAINTENANCE	CULTURE, PARKS, & RECREATION	232,609
OFFICE OF ENGINEERING & CAPITAL PROJECTS DIRECTOR	NON-DEPARTMENTAL	225,056
PARK MAINTENANCE TECHNICIAN II	CULTURE, PARKS, & RECREATION	221,034
NATURAL AREAS & TRAILS CHEMICAL APPLICATION TECHNICIAN II	CULTURE, PARKS, & RECREATION	201,984
OFFICE OF GOVERNMENTAL AFFAIRS DIRECTOR	NON-DEPARTMENTAL	185,873
POLICE COMMANDER POSITION	POLICE	183,915
NATURAL AREAS & TRAILS ENVIRONMENTAL PLANNER	CULTURE, PARKS, & RECREATION	149,059
ASSISTANT ATTORNEY I	CITY ATTORNEY'S OFFICE	139,288
ENGINEER II	COMMUNITY DEVELOPMENT	125,489
HOUSING MANAGER	ECONOMIC HEALTH & HOUSING	125,188
LONG RANGER PLANNER III	COMMUNITY DEVELOPMENT	120,688
EQUIPMENT MAINTENANCE POSITION	PUBLIC WORKS	115,590
ASSET COORDINATOR	PUBLIC WORKS	115,080
RISK ANALYST	HUMAN RESOURCES	106,304
PROFESSIONAL DEVELOPMENT	HUMAN RESOURCES	100,000
NATURAL AREAS & TRAILS CORE OPERATIONAL PRIORITIES	CULTURE, PARKS, & RECREATION	97,500
RECRUITMENT & SELECTION INCREASES	HUMAN RESOURCES	75,000
FLEET CERTIFICATION PAY	PUBLIC WORKS	61,360
WORKFORCE DEVELOPMENT	ECONOMIC HEALTH & HOUSING	50,000
EMPLOYEE BENEFIT CLAIMS	HUMAN RESOURCES	34,995
FESTIVALS ADMINISTRATION	CULTURE, PARKS, & RECREATION	34,194
COLORADO OPEN RECORDS ACT (CORA) ORGANIZATIONAL MANAGEMENT REQUEST PLATFORM	CITY CLERK'S OFFICE	30,000
PARKING SERVICE SUPERVISOR CONVERSION	PUBLIC WORKS	28,936
MARKETING	ECONOMIC HEALTH & HOUSING	25,000
HIGH PLAINS HOUSING DEVELOPMENT CORPORATION	ECONOMIC HEALTH & HOUSING	24,000
PATROL DRONE PROGRAM	POLICE	16,000
EMPLOYEE RECOGNITION	HUMAN RESOURCES	13,500
PUBLIC ART COMMUNITY OUTREACH	CULTURE, PARKS, & RECREATION	12,592
PROSECUTOR & SUPPORT STAFF CELLPHONES	CITY ATTORNEY'S OFFICE	5,640
FESTIVALS SISTER CITY	CULTURE, PARKS, & RECREATION	5,000
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 3,228,974

UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
REPLACEMENT OF FLEET MANAGEMENT INFORMATION SYSTEM	PUBLIC WORKS	\$ 400,000
LIABILITY FUND CLAIMS	HUMAN RESOURCES	355,000
FACILITIES ASSET MANAGEMENT POLICY & MIGRATION TO CITYWORKS	PUBLIC WORKS	285,000
INSURANCE & BONDS INCREASES	HUMAN RESOURCES	233,542
TRAFFIC INFRASTRUCTURE ASSET MANAGEMENT PLAN	PUBLIC WORKS	225,000
NATURAL AREAS & TRAILS ROLLING STOCK PRIORITIES	CULTURE, PARKS, & RECREATION	60,000
CITY CLERK'S OFFICE ASSESSMENT	NON-DEPARTMENTAL	60,000
ADDITIONAL G-HOPE (GREELEY HOME OWNERSHIP PROGRAM FOR EMPLOYEES) PROGRAM FUNDS	ECONOMIC HEALTH & HOUSING	50,000
FURNITURE REPLACEMENT	CITY ATTORNEY'S OFFICE	7,200
WELLNESS INCREASE	HUMAN RESOURCES	5,000
TOTAL UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 1,680,742

SUMMARY OF ADDITIONS & REQUESTS

CONTINUED

FUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
FIVE PLANT OPERATORS	WATER	\$ 578,649
BELLVUE OPERATIONS	WATER	214,400
CIVIL ENGINEER II-IV WATER SYSTEM DEVELOPMENT	WATER	145,372
BOYD SODIUM HYPOCHLORITE	WATER	140,000
WATER QUALITY & REGULATORY COMPLIANCE MANAGER	PUBLIC WORKS	132,399
ENGINEERING CONCRETE TECHNICIAN	PUBLIC WORKS	131,752
CIVIL ENGINEER I-II	WATER	129,849
UTILITY LOCATOR	WATER	126,677
WATER QUALITY ANALYST	WATER	95,575
BELLVUE MAINTENANCE MECHANIC	WATER	94,832
METER SHOP OPERATIONS	WATER	64,013
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) ADMINISTRATION	SEWER	42,000
WATER CONSERVATION SPECIALIST I & II RECLASSIFICATION	WATER	34,341
HIGH MOUNTAIN RESERVOIRS OPERATIONS	WATER	33,400
REGIONAL WATER STRATEGIC OPERATIONS	WATER	30,000
WATER QUALITY OPERATIONS	WATER	29,160
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) INDUSTRIAL PRETREATMENT	SEWER	16,500
TOTAL FUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 2,038,919

FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
TWO ALLO-PROJECT UTILITY LOCATORS	WATER	\$ 164,318
ONE POLICE VEHICLE	POLICE	55,000
LEADERSHIP TRAINING	WATER & SEWER	25,000
SAMPLING PROTOCOLS PONTOON BOAT	WATER	25,000
TOTAL FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS		\$ 269,318

SUMMARY OF ADDITIONS & REQUESTS

CONTINUED

UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
CITYWIDE SIDEWALK EVALUATION	PUBLIC WORKS	\$ 325,000
ASSET MANAGEMENT SENIOR LEADER	WATER	213,453
SUCCESSION, OVERHIRE, ASSESSMENT/CLASS & COMP SALARY ADJUSTMENTS	WATER	200,000
W&S CAPITAL PROJECTS MANAGER	WATER	185,000
UTILITY ASSET MANAGEMENT SUPERVISOR	WATER	132,399
WATER RESOURCES OPERATIONS	WATER	132,000
NON-POTABLE RAW WATER TECHNICIAN	WATER	123,921
COMMERCIAL DRIVER'S LICENSE & DEPARTMENT OF TRANSPORTATION COMPLIANCE COORDINATOR	WATER	100,000
LOBBYING CONSULTANT	WATER	100,000
ENGINEERING SUPPORT FOR FEDERAL PERMITTING RESPONSE	WATER	80,000
DISTRIBUTION OPERATIONS	WATER	72,202
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) MAINTENANCE	SEWER	70,000
INSTRUMENTATION & CONTROL (I&C) OPERATIONS	WATER	61,648
NON-POTABLE OPERATIONS	WATER	49,750
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) OPERATIONS	SEWER	38,480
TRANSMISSION RESERVOIRS OPERATIONS	WATER	8,625
TOTAL UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 1,892,478

UNFUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
WATER CONSERVATION PLANIMETRIC DATA	WATER	\$ 68,000
UTILITY AFFORDABILITY PROGRAM	WATER	50,000
NON-POTABLE WATER TANK & ACCESSORIES	WATER	45,000
RESERVOIRS TRUCK WITH UTILITY BED	WATER	45,000
WATER CONSERVATION VEHICLE & UTILITY TRAILER	WATER	45,000
INSTRUMENTATION & CONTROLS (I&C) VEHICLE	WATER	34,000
TOTAL UNFUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS		\$ 287,000

SUMMARY OF ADDITIONS & REQUESTS

CONTINUED

FUNDED: CITY STAFF INVESTMENTS

REQUEST	DEPARTMENT	EXPENDITURE
FIRE UNION (6% + STEP INCREASES)	FIRE	\$ 928,983
POLICE UNION (4% + STEP INCREASES)	POLICE	890,599
NON-UNION SALARY & BENEFITED MERIT INCREASE (AVERAGE 4%)	NON-CONTRACT	3,104,613
TOTAL FUNDED: CITY STAFF INVESTMENTS		\$ 4,924,195

FUND BALANCE WORKSHEET



Fund Description	Projected Fund Balance 1/1/2022	Resource Budget	Expenditure Budget	Projected Fund Balance 12/31/2022
100 - General				
100 - General	29,002,538	118,082,316	123,875,443	23,209,411
100 - General Total	29,002,538	118,082,316	123,875,443	23,209,411

100 - Special Revenue				
102 - Convention & Visitors	512,094	572,646	721,950	362,790
103 - Community Development	910,290	916,150	846,118	980,322
104 - Streets & Roads	10,160	11,508,908	11,519,068	-
105 - Conservation Trust	695,993	1,101,000	1,002,250	794,743
106 - Sales & Use Tax	-	86,574,062	86,574,062	-
110 - Conference Center Development	-	764,500	764,500	-
111 - Downtown Development Authority TIF	1,467,810	725,000	535,000	1,657,810
112 - NEAHR Grants	-	-	-	-
113 - Weld Drug Task Force Equitable Sharing	621,282	-	-	621,282
120 - Designated Revenue	8,374,709	2,698,854	5,140,163	5,933,400
140 - Museum	146,000	2,500	2,118	146,382
141 - Senior Citizen	35,114	300	50	35,364
142 - Senior Center Clubs	42,644	15,395	21,675	36,364
143 - Community Memorials	113,273	400	1,095	112,578
100 - Special Revenue Total	12,929,369	104,879,715	107,128,049	10,681,035

200 - Debt Service				
200 - General Debt Service	1,892,869	6,536,554	6,711,467	1,717,956
200 - Debt Service Total	1,892,869	6,536,554	6,711,467	1,717,956

300 - Capital Projects				
301 - Public Improvement	213,202	844,291	844,291	213,202
303 - Public Art	581,586	781,801	645,443	717,944
304 - Food Tax	1,270,710	8,805,145	9,851,489	224,366
305 - Softball Improvement	94,553	13,475	200	107,828
306 - Fire Equip & Acquisition Replacement	1,651,875	1,472,705	1,603,139	1,521,441
318 - Quality of Life/Imagine Greeley	2,931,943	6,474,475	6,547,311	2,859,107
320 - FASTER	221,817	630,500	515,700	336,617
321 - Keep Greeley Moving	1,809,174	15,359,292	17,168,466	-
322 - 2016 City Center	1,991,076	10,000	2,001,076	-
331 - Fire Protection Development	1,296,452	380,262	2,800	1,673,914
332 - Police Development	353,003	89,656	201,225	241,434
333 - Island Grove Development	(36,775)	206,690	100,200	69,715
334 - Transportation Development	3,276,002	11,441,714	11,144,560	3,573,156
335 - Park Development	737,101	1,582,430	1,582,430	737,101
336 - Trails Development	1,188,360	221,633	101,100	1,308,893
300 - Capital Projects Total	17,580,079	48,314,069	52,309,430	13,584,718

FUND BALANCE WORKSHEET

CONTINUED

Fund Description		Projected Fund Balance 1/1/2022	Resource Budget	Expenditure Budget	Projected Fund Balance 12/31/2022
400 - Enterprise					
400 - Cemetery		165,157	646,170	683,463	127,864
401 - Municipal Golf Courses		544,083	2,155,766	2,224,094	475,755
402 - Downtown Parking		359,699	324,100	337,395	346,404
411 - Sewer		2,858,097	7,702,555	7,862,236	2,698,416
* 412 - Sewer Construction		39,815	1,980,783	2,082,604	(62,006)
* 413 - Sewer Capital Replacement		1,792,668	4,501,784	6,528,973	(234,521)
414 - Sewer Debt Service		2,448,891	3,059,154	1,378,844	4,129,201
421 - Water		29,478,816	29,040,522	24,513,317	34,006,021
* 422 - Water Construction		8,977,794	23,893,511	46,030,189	(13,158,884)
423 - Water Capital Replacement		16,092,713	8,914,150	24,647,011	359,852
424 - Water Rights Acquisition		8,472,747	433,296	8,640,432	265,611
425 - Water Debt Service		15,439,434	11,306,329	10,925,681	15,820,082
431 - Stormwater		2,154,767	3,269,884	3,445,598	1,979,053
432 - Stormwater Construction		961,303	17,943,405	16,919,573	1,985,135
433 - Stormwater Replacement		1,379,293	2,332,987	2,658,809	1,053,471
434 - Stormwater Debt Service		368,461	1,768,611	548,050	1,589,022
400 - Enterprise Total		91,533,738	119,273,007	159,426,269	51,380,476
500 - Internal Service					
500 - Health		5,571,742	17,685,510	17,669,553	5,587,699
501 - Workers' Compensation		4,973,533	1,064,804	1,777,137	4,261,200
502 - Liability		1,909,713	2,431,956	2,332,743	2,008,926
503 - Communications		702,142	249,276	204,200	747,218
511 - Equipment Maintenance		510,161	2,996,678	3,051,946	454,893
512 - Fleet Replacement		2,542,581	2,696,044	3,897,608	1,341,017
513 - Equipment Replacement		-	3,935,532	1,236,686	2,698,846
521 - Information Technology		996,787	5,714,955	6,391,737	320,005
522 - Information Technology Acquisition		1,401,949	20,000	182,708	1,239,241
500 - Internal Service Total		18,608,608	36,794,755	36,744,318	18,659,045
600 - Permanent					
601 - Cemetery Endowment		1,604,573	121,000	41,000	1,684,573
603 - Petriken Memorial		2,276	25	10	2,291
605 - Memorials		384,130	15,000	66,300	332,830
600 - Permanent Total		1,990,979	136,025	107,310	2,019,694
Total Appropriation		\$ 173,538,180	\$ 434,016,441	\$ 486,302,286	\$ 121,252,335

FUND BALANCE WORKSHEET

CONTINUED

*Cash Flow / Timing of Payments (Capital Improvement Plan)

Fund Description	Projected Fund Balance 1/1/2022	Resource Budget	Expenditure Budget	Projected Fund Balance 12/31/2022
* 412 - Sewer Construction	39,815	1,980,783	5,304,192	(3,283,594)
* 413 - Sewer Capital Replacement	1,792,668	4,501,784	23,528,973	(17,234,521)
* 422 - Water Construction	8,977,794	23,893,511	27,772,689	5,098,616
2021 Capital Improvement Plan Cash Flow	10,650,819	-	-	10,650,819

Total Adjustment From Cash Flow/ Timing of Payments	\$ (32,352,690)	\$ -	\$ 1,964,088	\$ (34,316,778)
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Total Cash Flow/ Timing of Payments	\$ 195,181,898	\$ 434,016,441	\$ 488,266,374	\$ 140,931,965
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FUND BALANCE

SCHEDULE ALL FUNDS



	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 235,110,573	\$ 211,210,019	\$ 194,893,788	(\$ 16,316,231)	-7.73%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	113,829,875	134,355,964	130,307,387	(4,048,577)	-3.01%
Fines & Forfeits	2,285,301	2,433,191	2,478,191	45,000	1.85%
Intergovernmental Revenue	31,842,862	43,089,979	20,418,177	(22,671,802)	-52.62%
Licenses & Permits	2,050,855	2,331,797	2,495,969	164,172	7.04%
Taxes	104,504,855	109,157,017	118,294,180	9,137,163	8.37%
Miscellaneous Revenue	9,669,353	10,801,613	26,460,454	15,658,841	145%
Bond Proceeds	-	148,050,000	17,000,000	(131,050,000)	-88.52%
Transfers In	110,771,112	107,672,253	116,562,083	8,889,830	8.26%
Total Resources	\$ 374,954,213	\$ 557,891,814	\$ 434,016,441	(\$ 123,875,373)	-22.20%

Resources by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	54,253,967	48,319,778	48,314,069	(5,709)	-0.01%
City Attorneys Office	644,295	658,850	805,124	146,274	22.20%
City Clerk	101,675	126,412	297,066	170,654	135%
City Managers Office	315,759	294,552	607,195	312,643	106%
Communication & Engagement	691,739	826,696	1,148,366	321,670	38.91%
Community Development	2,687,844	2,902,042	3,132,302	230,260	7.93%
Culture, Parks & Recreation	6,975,600	8,754,330	10,724,108	1,969,778	22.50%
Economic Health & Housing	1,209,235	1,758,839	1,104,335	(654,504)	-37.21%
Finance	3,998,630	2,168,182	1,998,426	(169,756)	-7.83%
Fire	3,763,262	2,503,463	3,860,429	1,356,966	54.20%
Human Resources	18,942,846	20,072,209	21,246,337	1,174,128	5.85%
Information Technology	6,444,057	6,244,672	5,734,955	(509,717)	-8.16%
Municipal Court	2,083,335	2,131,391	2,176,391	45,000	2.11%
Non-Departmental	170,924,497	175,294,999	191,472,193	16,177,194	9.23%
Police	2,346,830	1,204,731	2,356,786	1,152,055	95.63%
Public Works	28,393,567	33,626,471	48,206,275	14,579,804	43.36%
Sewer	13,168,109	44,134,773	17,244,276	(26,890,497)	-60.93%
Water	58,008,965	206,869,424	73,587,808	(133,281,616)	-64.43%
Total Resources by Department	\$ 374,954,213	\$ 557,891,814	\$ 434,016,441	(\$ 123,875,373)	-22.20%

FUND BALANCE SCHEDULE ALL FUNDS

CONTINUED

Resources by Fund Type	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Capital Projects	54,253,967	48,319,778	48,314,069	(5,709)	-0.01%
Debt Service	6,590,168	6,621,250	6,536,554	(84,696)	-1.28%
Enterprise	81,053,029	261,074,343	119,273,007	(141,801,336)	-54.31%
General	108,055,253	112,011,707	118,082,316	6,070,609	5.42%
Internal Service	31,063,910	32,406,069	36,794,755	4,388,686	13.54%
Permanent	176,036	283,468	136,025	(147,443)	-52.01%
Special Revenue	93,761,851	97,175,199	104,879,715	7,704,516	7.93%
Total Resources by Fund Type	\$ 374,954,213	\$ 557,891,814	\$ 434,016,441	(\$ 123,875,373)	-22.20%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	93,363,640	102,124,571	111,819,550	9,694,979	9.49%
Supplies & Services	68,045,338	100,444,198	82,585,186	(17,859,012)	-17.78%
Capital	107,710,917	273,929,615	154,609,134	(119,320,481)	-43.56%
Debt	18,963,832	20,730,026	20,726,333	(3,693)	-0.02%
Transfers Out	110,771,040	107,672,253	116,562,083	8,889,830	8.26%
Total Expenditures by Category	\$ 398,854,767	\$ 604,900,663	\$ 486,302,286	(\$ 118,598,377)	-19.61%

FUND BALANCE SCHEDULE ALL FUNDS

CONTINUED

Expenditures by Department	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Capital Projects	72,875,125	81,669,915	52,309,430	(29,360,485)	-35.95%
City Attorneys Office	1,771,883	2,312,400	2,488,501	176,101	7.62%
City Clerk	703,034	1,063,546	1,065,997	2,451	0.23%
City Managers Office	1,483,481	2,094,360	2,412,233	317,873	15.18%
Communication & Engagement	1,769,030	2,706,529	2,813,553	107,024	3.95%
Community Development	5,265,718	5,729,236	6,066,438	337,202	5.89%
Culture, Parks & Recreation	18,106,546	21,562,353	24,670,052	3,107,699	14.41%
Economic Health & Housing	1,405,804	2,149,550	1,468,979	(680,571)	-31.66%
Finance	2,779,716	3,289,811	3,543,894	254,083	7.72%
Fire	19,236,285	21,785,144	22,399,198	614,054	2.82%
Human Resources	16,991,430	22,691,672	23,545,810	854,138	3.76%
Information Technology	7,762,030	8,354,518	6,574,445	(1,780,073)	-21.31%
Municipal Court	1,024,361	1,170,825	1,324,029	153,204	13.09%
Non-Departmental	103,451,589	104,337,562	115,243,385	10,905,823	10.45%
Police	30,714,464	31,738,461	34,591,132	2,852,671	8.99%
Public Works	28,689,657	41,125,516	53,175,923	12,050,407	29.30%
Sewer	14,721,474	59,014,632	17,852,657	(41,161,975)	-69.75%
Water	70,103,141	192,104,633	114,756,630	(77,348,003)	-40.26%
Total Expenditures by Department	\$ 398,854,767	\$ 604,900,663	\$ 486,302,286	(\$ 118,598,377)	-19.61%

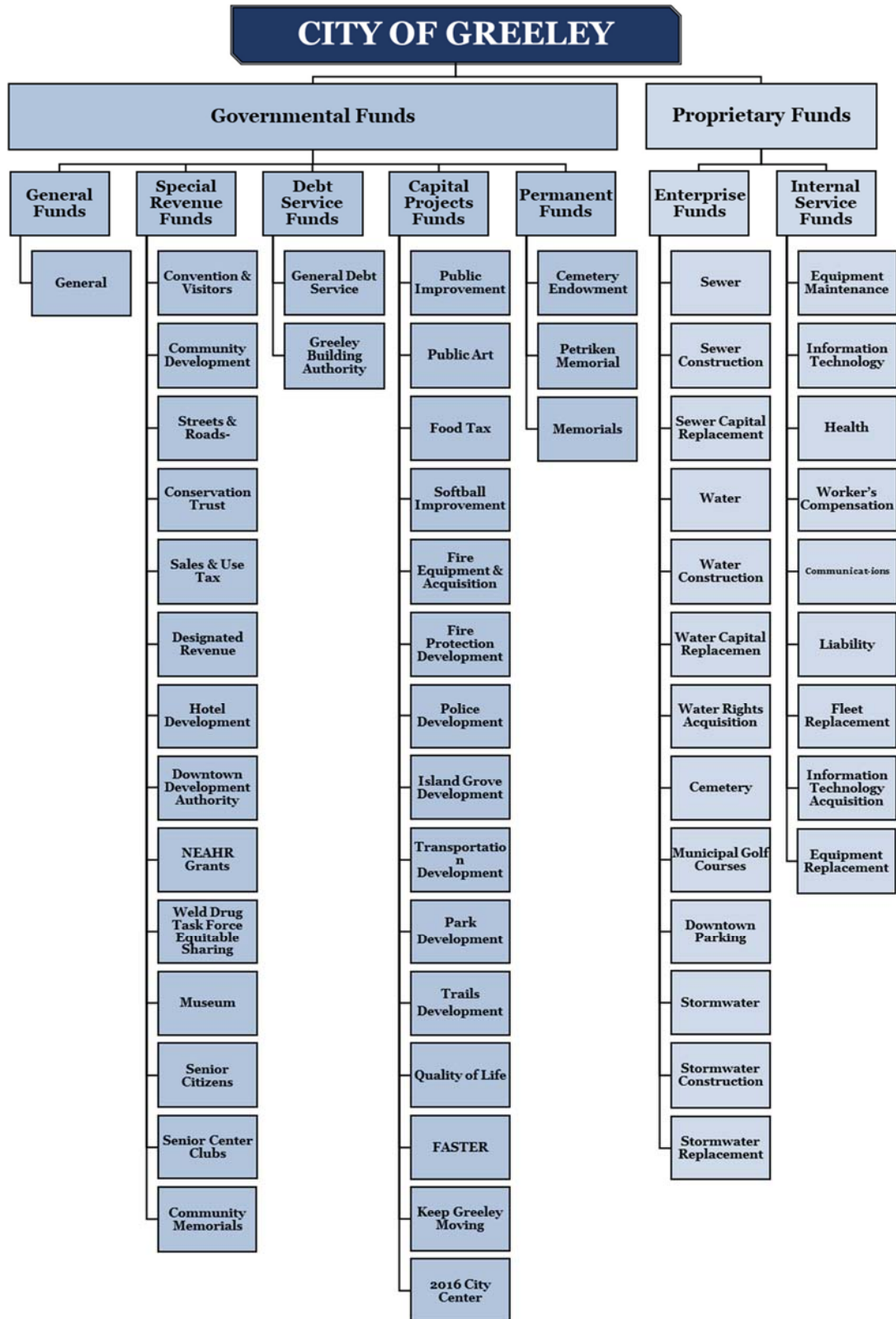
Expenditures by Fund Type	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Capital Projects	72,875,125	81,669,915	52,309,430	(29,360,485)	-35.95%
Debt Service	6,522,619	6,618,316	6,711,467	93,151	1.41%
Enterprise	92,923,049	262,729,513	159,426,269	(103,303,244)	-39.32%
General	105,725,224	120,618,096	123,875,443	3,257,347	2.70%
Internal Service	28,459,039	35,823,602	36,744,318	920,716	2.57%
Permanent	23,685	55,246	107,310	52,064	94.24%
Special Revenue	92,326,026	97,385,975	107,128,049	9,742,074	10.00%
Total Expenditures by Fund Type	\$ 398,854,767	\$ 604,900,663	\$ 486,302,286	(\$ 118,598,377)	-19.61%

Projected Ending Fund Balance & Reserves	\$ 211,210,019	\$ 194,893,788	\$ 140,643,855	(\$ 54,249,933)	-27.84%
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Timing of Expenditure Payments	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Capital	-	(32,352,690)	1,964,088	34,316,778	-106%
Timing of Expenditure Payments	-	(\$ 32,352,690)	\$ 1,964,088	\$ 34,316,778	-106%



FUND STRUCTURE





FUND/DEPARTMENT CROSS REFERENCE TABLE

[illegible]



GENERAL FUND



To account for all financial resources except those required to be accounted for in another fund.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 35,278,898	\$ 37,608,927	\$ 29,002,538	(\$ 8,606,389)	-22.88%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,434,290	4,264,365	4,707,230	442,865	10.39%
Gas Franchise Fee	1,429,009	1,540,658	1,705,180	164,522	10.68%
Electric Franchise Fee	2,346,313	2,213,059	2,432,802	219,743	9.93%
Cable TV Franchise Fee	930,527	950,000	930,000	(20,000)	-2.11%
Fines & Forfeits	2,215,574	2,249,191	2,294,191	45,000	2.00%
Intergovernmental Revenue	11,069,155	10,533,581	5,080,101	(5,453,480)	-51.77%
Severance Taxes	2,359,163	600,000	1,500,000	900,000	150%
Federal Mineral Lease	594,200	600,000	650,000	50,000	8.33%
Licenses & Permits	2,035,844	2,284,207	2,450,379	166,172	7.27%
Taxes	14,540,644	15,527,520	16,970,000	1,442,480	9.29%
Miscellaneous Revenue	1,828,014	1,651,080	2,037,098	386,018	23.38%
Royalties	1,637,522	797,500	1,391,085	593,585	74.43%
Transfers In	64,634,999	68,800,546	75,934,250	7,133,704	10.37%
Total Resources	\$ 108,055,253	\$ 112,011,707	\$ 118,082,316	\$ 6,070,609	5.42%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	67,804,203	75,125,178	82,092,547	6,967,369	9.27%
Supplies & Services	24,327,379	30,210,114	32,202,511	1,992,397	6.60%
Capital	567,767	6,408,858	1,075,150	(5,333,708)	-83.22%
Debt	60,991	72,000	61,000	(11,000)	-15.28%
Transfers Out	12,964,885	8,801,946	8,444,235	(357,711)	-4.06%
Total Expenditures by Category	\$ 105,725,224	\$ 120,618,096	\$ 123,875,443	\$ 3,257,347	2.70%

GENERAL FUND

CONTINUED

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
City Attorneys Office	1,771,883	2,312,400	2,488,501	176,101	7.62%
City Clerk	703,034	1,063,546	1,065,997	2,451	0.23%
City Managers Office	1,483,481	2,094,360	2,412,233	317,873	15.18%
Communication & Engagement	1,581,696	2,533,354	2,662,053	128,699	5.08%
Community Development	5,265,718	5,729,236	6,066,438	337,202	5.89%
Culture, Parks & Recreation	15,085,585	18,164,235	20,612,473	2,448,238	13.48%
Economic Health & Housing	563,313	1,257,471	622,861	(634,610)	-50.47%
Finance	2,680,138	3,085,611	3,339,694	254,083	8.23%
Fire	19,236,285	21,785,144	21,920,902	135,758	0.62%
Human Resources	1,312,775	1,746,393	1,766,377	19,984	1.14%
Municipal Court	987,709	1,134,173	1,290,974	156,801	13.83%
Non-Departmental	16,139,194	12,900,982	14,579,125	1,678,143	13.01%
Police	30,713,464	31,737,461	34,239,778	2,502,317	7.88%
Public Works	8,200,949	15,073,730	10,808,037	(4,265,693)	-28.30%
Total Expenditures by Department	\$ 105,725,224	\$ 120,618,096	\$ 123,875,443	\$ 3,257,347	2.70%
Projected Ending Fund Balance & Reserves	\$ 37,608,927	\$ 29,002,538	\$ 23,209,411	(\$ 5,793,127)	-19.97%



SPECIAL REVENUE FUNDS

To account for specific revenues that are legally restricted to expenditure for particular purposes.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 11,416,210	\$ 12,852,035	\$ 12,641,259	(\$ 210,776)	-1.64%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,801,568	1,819,057	1,863,557	44,500	2.45%
Fines & Forfeits	3,340	9,000	9,000	-	-
Intergovernmental Revenue	5,769,013	5,297,875	5,573,275	275,400	5.20%
Licenses & Permits	10,287	15,590	15,590	-	-
Taxes	77,799,146	81,444,428	88,676,388	7,231,960	8.88%
Miscellaneous Revenue	1,242,312	1,070,480	880,068	(190,412)	-17.79%
Transfers In	7,136,185	7,518,769	7,861,837	343,068	4.56%
Total Resources	\$ 93,761,851	\$ 97,175,199	\$ 104,879,715	\$ 7,704,516	7.93%

Resources by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Convention & Visitors (102)	373,649	479,646	572,646	93,000	19.39%
Community Development (103)	1,058,935	916,150	916,150	-	-
Streets & Roads (104)	9,861,878	10,728,805	11,508,908	780,103	7.27%
Conservation Trust (105)	1,114,370	1,001,000	1,101,000	100,000	9.99%
Sales & Use Tax (106)	75,800,497	79,450,782	86,574,062	7,123,280	8.97%
Conference Center Development (110)	429,934	764,500	764,500	-	-
Downtown Development Authority TIF (111)	832,546	725,000	725,000	-	-
NEAHR Grants (112)	256,609	-	-	-	-
Weld Drug Task Force Equitable Sharing (113)	30,756	-	-	-	-
Designated Revenue (120)	3,977,044	3,090,721	2,698,854	(391,867)	-13.33%
Museum (140)	10,768	2,500	2,500	-	-
Senior Citizen (141)	630	300	300	-	-
Senior Center Clubs (142)	9,749	15,395	15,395	-	-
Community Memorials (143)	4,486	400	400	-	-
Total Resources by Fund	\$ 93,761,851	\$ 97,175,199	\$ 104,879,715	\$ 7,704,516	7.93%

SPECIAL REVENUE FUNDS

CONTINUED

Resources by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Communication & Engagement	84,203	75,000	75,000	-	-
Community Development	5,876	-	-	-	-
Culture, Parks & Recreation	209,524	189,169	173,169	(16,000)	-8.46%
Economic Health & Housing	1,058,935	916,150	916,150	-	-
Finance	2,570,659	409,000	410,000	1,000	0.24%
Fire	1,800,000	-	-	-	-
Municipal Court	18,060	25,000	25,000	-	-
Non-Departmental	78,151,435	84,832,075	91,771,488	6,939,413	8.18%
Police	460	-	-	-	-
Public Works	9,862,698	10,728,805	11,508,908	780,103	7.27%
Total Resources by Department	\$ 93,761,851	\$ 97,175,199	\$ 104,879,715	\$ 7,704,516	7.93%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	4,827,586	5,723,418	6,162,679	439,261	7.67%
Supplies & Services	7,015,902	6,652,140	7,301,889	649,749	9.77%
Capital	285,702	76,755	-	(76,755)	-100%
Debt	222,542	727,500	764,000	36,500	5.02%
Transfers Out	79,974,294	84,206,162	92,899,481	8,693,319	10.32%
Total Expenditures by Category	\$ 92,326,026	\$ 97,385,975	\$ 107,128,049	\$ 9,742,074	10.00%

SPECIAL REVENUE FUNDS

CONTINUED

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Communication & Engagement	187,334	173,175	151,500	(21,675)	-12.52%
Culture, Parks & Recreation	134,997	345,663	221,187	(124,476)	-36.01%
Economic Health & Housing	842,491	892,079	846,118	(45,961)	-5.15%
Finance	-	-	-	-	-
Municipal Court	30,000	30,000	25,000	(5,000)	-16.67%
Non-Departmental	80,761,737	84,770,728	93,910,793	9,140,065	10.78%
Police	1,000	1,000	1,000	-	-
Public Works	10,368,467	11,173,330	11,972,451	799,121	7.15%
Total Expenditures by Department	\$ 92,326,026	\$ 97,385,975	\$ 107,128,049	\$ 9,742,074	10.00%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Convention & Visitors (102)	556,246	775,955	721,950	(54,005)	-6.96%
Community Development (103)	842,491	892,079	846,118	(45,961)	-5.15%
Streets & Roads (104)	9,809,126	10,748,801	11,519,068	770,267	7.17%
Conservation Trust (105)	1,204,885	964,969	1,002,250	37,281	3.86%
Sales & Use Tax (106)	75,800,497	79,450,782	86,574,062	7,123,280	8.97%
Conference Center Development (110)	430,659	728,000	764,500	36,500	5.01%
Downtown Development Authority TIF (111)	673,055	535,000	535,000	-	-
NEAHR Grants (112)	456,527	-	-	-	-
Weld Drug Task Force Equitable Sharing (113)	64,379	67,228	-	(67,228)	-100%
Designated Revenue (120)	2,440,568	3,159,029	5,140,163	1,981,134	74.10%
Museum (140)	39,062	41,312	2,118	(39,194)	-94.87%
Senior Citizen (141)	26	50	50	-	-
Senior Center Clubs (142)	6,282	21,675	21,675	-	-
Community Memorials (143)	2,224	1,095	1,095	-	-
Total Expenditures by Fund	\$ 92,326,026	\$ 97,385,975	\$ 107,128,049	\$ 9,742,074	10.00%

Projected Ending Fund Balance & Reserves	\$ 12,852,035	\$ 12,641,259	\$ 10,392,925	(\$ 2,248,334)	-17.79%
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CONVENTION & VISITORS FUND

To account for the collection of the City's three percent lodging tax that is utilized to support convention and visitor activities; created per Greeley Municipal Code 4.08.050.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 991,000	\$ 808,403	\$ 512,094	(\$ 296,309)	-36.65%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Taxes	363,027	474,646	567,646	93,000	19.59%
Miscellaneous Revenue	10,622	5,000	5,000	-	-
Total Resources	\$ 373,649	\$ 479,646	\$ 572,646	\$ 93,000	19.39%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	150,652	152,250	152,250	-	-
Transfers Out	405,594	623,705	569,700	(54,005)	-8.66%
Total Expenditures by Category	\$ 556,246	\$ 775,955	\$ 721,950	(\$ 54,005)	-6.96%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Communication & Engagement	150,001	151,500	151,500	-	-
Non-Departmental	406,245	624,455	570,450	(54,005)	-8.65%
Total Expenditures by Department	\$ 556,246	\$ 775,955	\$ 721,950	(\$ 54,005)	-6.96%

Projected Ending Fund Balance & Reserves	\$ 808,403	\$ 512,094	\$ 362,790	(\$ 149,304)	-29.16%
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COMMUNITY DEVELOPMENT FUND

To account for federal grant revenues which are utilized to administer rehabilitation loan and grant programs, special projects for the benefit of the elderly and handicapped, and various other projects in accordance with Housing and Urban Development regulations.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 669,775	\$ 886,219	\$ 910,290	\$ 24,071	2.72%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	594,116	850,000	850,000	-	-
Miscellaneous Revenue	430,276	-	-	-	-
Transfers In	34,543	66,150	66,150	-	-
Total Resources	\$ 1,058,935	\$ 916,150	\$ 916,150	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	226,233	241,371	253,651	12,280	5.09%
Supplies & Services	616,258	650,708	592,467	(58,241)	-8.95%
Total Expenditures by Category	\$ 842,491	\$ 892,079	\$ 846,118	(\$ 45,961)	-5.15%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Economic Health & Housing	842,491	892,079	846,118	(45,961)	-5.15%
Total Expenditures by Department	\$ 842,491	\$ 892,079	\$ 846,118	(\$ 45,961)	-5.15%

Projected Ending Fund Balance & Reserves	\$ 886,219	\$ 910,290	\$ 980,322	\$ 70,032	7.69%
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STREETS & ROADS FUND

To account for the collection of highway user taxes, road and bridge taxes and registration and ownership fees which are utilized to operate and maintain the streets, roads, traffic lights and signs within the city; created per City Charter Section 5-5.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	(\$ 22,597)	\$ 30,156	\$ 10,160	(\$ 19,996)	-66.31%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,616,481	1,559,688	1,604,188	44,500	2.85%
Intergovernmental Revenue	3,755,312	3,400,875	3,576,275	175,400	5.16%
Licenses & Permits	10,287	15,590	15,590	-	-
Taxes	805,065	794,000	809,680	15,680	1.97%
Miscellaneous Revenue	601,152	643,368	643,368	-	-
Transfers In	3,073,583	4,315,284	4,859,807	544,523	12.62%
Total Resources	\$ 9,861,878	\$ 10,728,805	\$ 11,508,908	\$ 780,103	7.27%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	4,522,739	5,230,056	5,694,714	464,658	8.88%
Supplies & Services	5,230,473	5,479,795	5,824,354	344,559	6.29%
Capital	55,915	38,950	-	(38,950)	-100%
Total Expenditures by Category	\$ 9,809,126	\$ 10,748,801	\$ 11,519,068	\$ 770,267	7.17%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Works	9,809,126	10,748,801	11,519,068	770,267	7.17%
Total Expenditures by Department	\$ 9,809,126	\$ 10,748,801	\$ 11,519,068	\$ 770,267	7.17%

Projected Ending Fund Balance & Reserves	\$ 30,156	\$ 10,160	-	(\$ 10,160)	-100%
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CONSERVATION TRUST FUND

To account for revenues received from the Colorado State Lottery which are utilized for the acquisition, development, and maintenance of new and existing conservation sites in accordance with Colorado Revised Statute 29-21-101.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 750,477	\$ 659,962	\$ 695,993	\$ 36,031	5.46%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	1,105,270	1,000,000	1,100,000	100,000	10.00%
Miscellaneous Revenue	9,100	1,000	1,000	-	-
Total Resources	\$ 1,114,370	\$ 1,001,000	\$ 1,101,000	\$ 100,000	9.99%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	548	2,250	2,250	-	-
Transfers Out	1,204,337	962,719	1,000,000	37,281	3.87%
Total Expenditures by Category	\$ 1,204,885	\$ 964,969	\$ 1,002,250	\$ 37,281	3.86%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Non-Departmental	1,204,885	964,969	1,002,250	37,281	3.86%
Total Expenditures by Department	\$ 1,204,885	\$ 964,969	\$ 1,002,250	\$ 37,281	3.86%

Projected Ending Fund Balance & Reserves	\$ 659,962	\$ 695,993	\$ 794,743	\$ 98,750	14.19%
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SALES & USE TAX FUND

To account for the collection of the City's 3.46% sales and use tax which is utilized in accordance with the March 1, 1998 Revenue Bonds, the October 1, 2000 Revenue Bonds, the 2003 Revenue Bonds, the 2005 Revenue Bonds, and the 2005B Refunding Revenue Bonds.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	-	-	-	-	-

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	98	-	-	-	-
Intergovernmental Revenue	1,891	-	-	-	-
Taxes	75,798,508	79,450,782	86,574,062	7,123,280	8.97%
Total Resources	\$ 75,800,497	\$ 79,450,782	\$ 86,574,062	\$ 7,123,280	8.97%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	-	121,336	135,800	14,464	11.92%
Supplies & Services	-	-121,336	220,300	341,636	-282%
Transfers Out	75,800,497	79,450,782	86,217,962	6,767,180	8.52%
Total Expenditures by Category	\$ 75,800,497	\$ 79,450,782	\$ 86,574,062	\$ 7,123,280	8.97%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Finance	-	-	-	-	-
Non-Departmental	75,800,497	79,450,782	86,574,062	7,123,280	8.97%
Total Expenditures by Department	\$ 75,800,497	\$ 79,450,782	\$ 86,574,062	\$ 7,123,280	8.97%

Projected Ending Fund Balance & Reserves	-	-	-	-	-
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DESIGNATED REVENUE FUND

To account for the collection of court imposed surcharges and other committed or assigned revenues.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 6,618,430	\$ 8,154,907	\$ 8,086,599	(\$ 68,308)	-0.07%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	97,793	104,974	104,974	-	-
Fines & Forfeits	3,340	9,000	9,000	-	-
Intergovernmental Revenue	69,376	47,000	47,000	-	-
Miscellaneous Revenue	158,347	403,912	213,500	(190,412)	-47.14%
Transfers In	3,648,188	2,525,835	2,324,380	(201,455)	-7.98%
Total Resources	\$ 3,977,044	\$ 3,090,721	\$ 2,698,854	(\$ 391,867)	-13.33%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	67,633	113,593	76,646	(36,947)	-32.53%
Supplies & Services	95,219	139,903	161,698	21,795	15.58%
Capital	13,185	13,805	-	(13,805)	-100%
Transfers Out	2,264,530	2,891,728	4,901,819	2,010,091	69.51%
Total Expenditures by Category	\$ 2,440,568	\$ 3,159,029	\$ 5,140,163	\$ 1,981,134	74.10%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Communication & Engagement	37,333	21,675	-	(21,675)	-100%
Culture, Parks & Recreation	88,487	282,626	197,344	(85,282)	-30.17%
Municipal Court	30,000	30,000	25,000	(5,000)	-16.67%
Non-Departmental	1,725,406	2,400,199	4,464,436	2,064,237	86.00%
Public Works	559,342	424,529	453,383	28,854	6.80%
Total Expenditures by Department	\$ 2,440,568	\$ 3,159,029	\$ 5,140,163	\$ 1,981,134	74.10%

Projected Ending Fund Balance & Reserves	\$ 8,154,907	\$ 8,086,599	\$ 5,645,290	(\$ 2,441,309)	-34.82%
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CONFERENCE

CENTER DEVELOPMENT FUND

To account for property tax increment, sales tax, lodger's tax, public improvement fees, payments in lieu of taxes and rent revenues generated by the Conference Center.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	(\$ 35,775)	(\$ 36,500)	-	\$ 36,500	-100%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	50,009	150,000	150,000	-	-
Miscellaneous Revenue	54	3,000	3,000	-	-
Transfers In	379,871	611,500	611,500	-	-
Total Resources	\$ 429,934	\$ 764,500	\$ 764,500	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	208,117	500	500	-	-
Debt	222,542	727,500	764,000	36,500	5.02%
Total Expenditures by Category	\$ 430,659	\$ 728,000	\$ 764,500	\$ 36,500	5.01%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Non-Departmental	430,659	728,000	764,500	36,500	5.01%
Total Expenditures by Department	\$ 430,659	\$ 728,000	\$ 764,500	\$ 36,500	5.01%

Projected Ending Fund Balance & Reserves	(\$ 36,500)	-	-	-	-
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DOWNTOWN

DEVELOPMENT AUTHORITY TIF FUND

To account for the tax increment revenue generated from property taxes within the authority.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,118,320	\$ 1,277,810	\$ 1,467,810	\$ 190,000	14.87%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Taxes	832,546	725,000	725,000	-	-
Total Resources	\$ 832,546	\$ 725,000	\$ 725,000	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	464,975	325,000	325,000	-	-
Transfers Out	208,080	210,000	210,000	-	-
Total Expenditures by Category	\$ 673,055	\$ 535,000	\$ 535,000	-	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Non-Departmental	673,055	535,000	535,000	-	-
Total Expenditures by Department	\$ 673,055	\$ 535,000	\$ 535,000	-	-

Projected Ending Fund Balance & Reserves	\$ 1,277,810	\$ 1,467,810	\$ 1,657,810	\$ 190,000	12.94%
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NEAHR GRANTS FUND

To account for the Federal Pass-through funding of purchases as the Northeast All Hazard Region Homeland Security Grant Fiscal Agent. Annual Grants are utilized to fund public safety response planning, equipment, and training (Intergovernmental agreement with the State of Colorado).

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 199,918	-	-	-	-

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	35,150	-	-	-	-
Intergovernmental Revenue	221,459	-	-	-	-
Total Resources	\$ 256,609	-	-	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	10,982	-	-	-	-
Supplies & Services	231,153	-	-	-	-
Capital	214,393	-	-	-	-
Total Expenditures by Category	\$ 456,527	-	-	-	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Non-Departmental	456,527	-	-	-	-
Total Expenditures by Department	\$ 456,527	-	-	-	-

Projected Ending Fund Balance & Reserves	-	-	-	-	-
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WELD DRUG TASK FORCE

EQUITABLE SHARING FUND

To account for the Federal Pass-through funding of purchases as the Northeast All Hazard Region Homeland Security Grant Fiscal Agent. Annual Grants are utilized to fund public safety response planning, equipment, and training (Intergovernmental agreement)

Federally forfeited property seized through investigation by the Weld County Drug Task Force (WCDF), with participating Greeley Police Department members; allows an equitable share of the net proceeds to be retained. Equitably shared funds must be used by law enforcement agencies for law enforcement purposes only.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 722,134	\$ 688,510	\$ 621,282	(\$ 67,228)	-9.76%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	21,590	-	-	-	-
Miscellaneous Revenue	9,166	-	-	-	-
Total Resources	\$ 30,756	-	-	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	541	-	-	-	-
Transfers Out	63,838	67,228	-	(67,228)	-100%
Total Expenditures by Category	\$ 64,379	\$ 67,228	-	(\$ 67,228)	-100%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Non-Departmental	64,379	67,228	-	(67,228)	-100%
Total Expenditures by Department	\$ 64,379	\$ 67,228	-	(\$ 67,228)	-100%

Projected Ending Fund Balance & Reserves	\$ 688,510	\$ 621,282	\$ 621,282	-	-
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MUSEUM FUND

To account for donations and interest earnings on donations bequeathed to the City for Museums.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 213,106	\$ 184,812	\$ 146,000	(\$ 38,812)	-21.00%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	268	-	-	-	-
Miscellaneous Revenue	10,499	2,500	2,500	-	-
Total Resources	\$ 10,768	\$ 2,500	\$ 2,500	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	-	17,062	1,868	(15,194)	-89.05%
Supplies & Services	9,435	250	250	-	-
Capital	2,210	24,000	-	(24,000)	-100%
Transfers Out	27,417	-	-	-	-
Total Expenditures by Category	\$ 39,062	\$ 41,312	\$ 2,118	(\$ 39,194)	-94.87%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	39,062	41,312	2,118	(39,194)	-94.87%
Total Expenditures by Department	\$ 39,062	\$ 41,312	\$ 2,118	(\$ 39,194)	-94.87%

Projected Ending Fund Balance & Reserves	\$ 184,812	\$ 146,000	\$ 146,382	\$ 382	0.26%
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SENIOR CITIZEN FUND

To account for contributions from individuals, corporations, and organizations for capital improvements to the Senior Activity Center.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 34,259	\$ 34,864	\$ 35,114	\$ 250	0.72%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	630	300	300	-	-
Total Resources	\$ 630	\$ 300	\$ 300	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	26	50	50	-	-
Total Expenditures by Category	\$ 26	\$ 50	\$ 50	-	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	26	50	50	-	-
Total Expenditures by Department	\$ 26	\$ 50	\$ 50	-	-

Projected Ending Fund Balance & Reserves	\$ 34,864	\$ 35,114	\$ 35,364	\$ 250	0.71%
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SENIOR CENTER CLUBS FUND

To account for all dues, interest earnings, and expenses related to Senior Center clubs; created per Greeley Municipal Code 4.42.040.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 34,259	\$ 34,864	\$ 35,114	\$ 250	0.72%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	630	300	300	-	-
Total Resources	\$ 630	\$ 300	\$ 300	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	26	50	50	-	-
Total Expenditures by Category	\$ 26	\$ 50	\$ 50	-	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	26	50	50	-	-
Total Expenditures by Department	\$ 26	\$ 50	\$ 50	-	-

Projected Ending Fund Balance & Reserves	\$ 34,864	\$ 35,114	\$ 35,364	\$ 250	0.71%
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COMMUNITY MEMORIALS FUND

To account for donations and interest earnings on donations bequeathed to the City for specific purposes.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 111,706	\$ 113,968	\$ 113,273	(\$ 695)	-0.61%

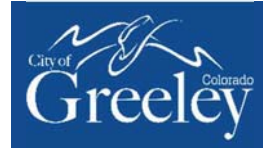
Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	4,486	400	400	-	-
Total Resources	\$ 4,486	\$ 400	\$ 400	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	2,224	1,095	1,095	-	-
Total Expenditures by Category	\$ 2,224	\$ 1,095	\$ 1,095	-	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	1,140	-	-	-	-
Non-Departmental	84	95	95	-	-
Police	1,000	1,000	1,000	-	-
Total Expenditures by Department	\$ 2,224	\$ 1,095	\$ 1,095	-	-

Projected Ending Fund Balance & Reserves	\$ 113,968	\$ 113,273	\$ 112,578	(\$ 695)	-0.61%
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DEBT SERVICE FUND

Debt service funds are established to account for the accumulation of resources for, and payment of, general long-term debt principal and interest.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,822,386	\$ 1,889,935	\$ 1,892,869	\$ 2,934	0.16%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	40,134	10,000	10,000	-	-
Transfers In	6,550,034	6,611,250	6,526,554	(84,696)	-1.28%
Total Resources	\$ 6,590,168	\$ 6,621,250	\$ 6,536,554	(\$ 84,696)	-1.28%

Resources by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
General Debt Service (200)	6,590,168	6,621,250	6,536,554	(84,696)	-1.28%
Total Resources by Fund	\$ 6,590,168	\$ 6,621,250	\$ 6,536,554	(\$ 84,696)	-1.28%

Resources by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Non-Departmental	6,590,168	6,621,250	6,536,554	(84,696)	-1.28%
Total Resources by Department	\$ 6,590,168	\$ 6,621,250	\$ 6,536,554	(\$ 84,696)	-1.28%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	1,846	5,000	5,000	-	-
Debt	6,520,773	6,613,316	6,706,467	93,151	1.41%
Total Expenditures by Category	\$ 6,522,619	\$ 6,618,316	\$ 6,711,467	\$ 93,151	1.41%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
General Debt Service (200)	6,522,619	6,618,316	6,711,467	93,151	1.41%
Total Expenditures by Fund	\$ 6,522,619	\$ 6,618,316	\$ 6,711,467	\$ 93,151	1.41%

Projected Ending Fund Balance & Reserves	\$ 1,889,935	\$ 1,892,869	\$ 1,717,956	(\$ 174,913)	-9.24%
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CAPITAL PROJECT FUNDS

Capital project funds are used to account for the acquisition and construction of major capital facilities other than those financed by proprietary funds and trust funds.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 66,052,474	\$ 47,431,316	\$ 17,580,079	(\$ 29,851,237)	-62.94%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	4,640,172	6,331,736	4,770,543	(1,561,193)	-24.66%
Intergovernmental Revenue	7,916,409	6,612,774	7,614,501	1,001,727	15.15%
Taxes	12,165,066	12,185,069	12,647,792	462,723	3.80%
Miscellaneous Revenue	662,990	548,006	431,890	(116,116)	-21.19%
Bond Proceeds	-	-	-	-	-
Transfers In	28,869,330	22,642,193	22,849,343	207,150	0.91%
Total Resources	\$ 54,253,967	\$ 48,319,778	\$ 48,314,069	(\$ 5,709)	-0.01%

Resources by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Improvement (301)	6,234,196	3,862,110	844,291	(3,017,819)	-78.14%
Public Art (303)	302,018	248,753	781,801	533,048	214%
Food Tax (304)	9,087,112	9,521,704	8,805,145	(716,559)	-7.53%
Softball Improvement (305)	2,316	13,150	13,475	325	2.47%
Fire Equip & Acquisition Replacement (306)	1,395,502	1,514,868	1,472,705	(42,163)	-2.78%
Quality of Life/Imagine Greeley (318)	5,717,236	7,098,095	6,474,475	(623,620)	-8.79%
FASTER (320)	767,594	630,500	630,500	-	-
Keep Greeley Moving (321)	14,915,340	14,896,069	15,359,292	463,223	3.11%
2016 City Center (322)	848,920	10,000	10,000	-	-
Fire Protection Development (331)	322,091	517,743	380,262	(137,481)	-26.55%
Police Development (332)	74,919	118,834	89,656	(29,178)	-24.55%
Island Grove Development (333)	30,445	162,492	206,690	44,198	27.20%
Transportation Development (334)	12,651,459	6,819,693	11,441,714	4,622,021	67.77%
Park Development (335)	1,704,336	2,187,143	1,582,430	(604,713)	-27.65%
Trails Development (336)	200,481	718,624	221,633	(496,991)	-69.16%
Total Resources by Fund	\$ 54,253,967	\$ 48,319,778	\$ 48,314,069	(\$ 5,709)	-0.01%

CAPITAL PROJECT FUNDS

CONTINUED

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,348,440	491,055	128,932	(362,123)	-73.74%
Supplies & Services	4,046,979	3,051,672	382,163	(2,669,509)	-87.48%
Capital	54,748,028	67,655,916	42,464,025	(25,191,891)	-37.24%
Debt	264,017	259,218	113,543	(145,675)	-56.20%
Transfers Out	12,467,661	10,212,054	9,220,767	(991,287)	-9.71%
Total Expenditures by Category	\$ 72,875,125	\$ 81,669,915	\$ 52,309,430	(\$ 29,360,485)	-35.95%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Improvement (301)	21,997,452	12,880,605	844,291	(12,036,314)	-93.45%
Public Art (303)	377,203	760,333	645,443	(114,890)	-15.11%
Food Tax (304)	10,617,519	11,316,596	9,851,489	(1,465,107)	-12.95%
Softball Improvement (305)	60	175	200	25	14.29%
Fire Equip & Acquisition Replacement (306)	1,948,237	2,220,803	1,603,139	(617,664)	-27.81%
Quality of Life/Imagine Greeley (318)	5,687,697	14,199,148	6,547,311	(7,651,837)	-53.89%
FASTER (320)	1,022,891	819,155	515,700	(303,455)	-37.04%
Keep Greeley Moving (321)	15,767,751	15,388,294	17,168,466	1,780,172	11.57%
2016 City Center (322)	3,267,468	205,000	2,001,076	1,796,076	876%
Fire Protection Development (331)	1,601,790	2,600	2,800	200	7.69%
Police Development (332)	128,988	260,950	201,225	(59,725)	-22.89%
Island Grove Development (333)	163	430,175	100,200	(329,975)	-76.71%
Transportation Development (334)	9,281,221	20,046,514	11,144,560	(8,901,954)	-44.41%
Park Development (335)	1,155,447	2,187,143	1,582,430	(604,713)	-27.65%
Trails Development (336)	21,238	952,424	101,100	(851,324)	-89.38%
Total Expenditures by Fund	\$ 72,875,125	\$ 81,669,915	\$ 52,309,430	(\$ 29,360,485)	-35.95%

Projected Ending Fund Balance & Reserves	\$ 47,431,316	\$ 17,580,079	\$ 13,584,718	(\$ 3,995,361)	-22.73%
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Timing of Expenditure Payments	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital	-	(5,158,972)	-	5,158,972	-100%
Timing of Expenditure Payments	-	(\$ 5,158,972)	-	\$ 5,158,972	-100%

PUBLIC IMPROVEMENT FUND

To account for the cost of purchasing major equipment, constructing major capital facilities, and improving existing facilities. Revenues are derived from grant monies, intergovernmental agreements, and operating transfers.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 24,994,953	\$ 9,231,697	\$ 213,202	(\$ 9,018,495)	-97.69%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,025	381,313	-	(381,313)	-100%
Intergovernmental Revenue	2,245,053	2,705,797	582,013	(2,123,784)	-78.49%
Miscellaneous Revenue	212,008	375,000	252,278	(122,722)	-32.73%
Transfers In	3,776,110	400,000	10,000	(390,000)	-97.50%
Total Resources	\$ 6,234,196	\$ 3,862,110	\$ 844,291	(\$ 3,017,819)	-78.14%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	145,107	78,000	-	(78,000)	-100%
Supplies & Services	3,300,845	2,567,288	10,000	(2,557,288)	-100%
Capital	18,533,922	10,235,317	834,291	(9,401,026)	-91.85%
Transfers Out	17,578	-	-	-	-
Total Expenditures by Category	\$ 21,997,452	\$ 12,880,605	\$ 844,291	(\$ 12,036,314)	-93.45%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	21,997,452	12,880,605	844,291	(12,036,314)	-93.45%
Total Expenditures by Department	\$ 21,997,452	\$ 12,880,605	\$ 844,291	(\$ 12,036,314)	-93.45%

Projected Ending Fund Balance & Reserves	\$ 9,231,697	\$ 213,202	\$ 213,202	-	-
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PUBLIC ART FUND

To account for the cost associated with the City's public art program; created per Greeley Municipal Code 2.33.045. Revenues are derived from a transfer from General fund and transfers of 1% of the estimated project costs in other funds.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	-	1,000	1,000	-	-
Intergovernmental Revenue	834	-	-	-	-
Miscellaneous Revenue	14,926	6,500	6,500	-	-
Transfers In	286,259	241,253	774,301	533,048	221%
Total Resources	\$ 302,018	\$ 248,753	\$ 781,801	\$ 533,048	214%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	70,644	78,961	83,332	4,371	5.54%
Supplies & Services	5,615	43,557	21,920	(21,637)	-49.68%
Capital	300,944	637,815	540,191	(97,624)	-15.31%
Total Expenditures by Category	\$ 377,203	\$ 760,333	\$ 645,443	(\$ 114,890)	-15.11%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	377,203	760,333	645,443	(114,890)	-15.11%
Total Expenditures by Department	\$ 377,203	\$ 760,333	\$ 645,443	(\$ 114,890)	-15.11%

Projected Ending Fund Balance & Reserves	\$ 1,093,166	\$ 581,586	\$ 717,944	\$ 136,358	23.45%
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FOOD TAX FUND

To account for the cost of specific capital improvements and repairs and maintenance projects. Revenues are derived from taxes collected due to the repeal of the City sales tax exemption on sales of food for domestic consumption; sales tax on food extended to December 31,2026.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 4,596,009	\$ 3,065,602	\$ 1,270,710	(\$ 1,794,892)	-58.55%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	334,194	20,000	20,000	-	-
Intergovernmental Revenue	1,716	997,977	-	(997,977)	-100%
Miscellaneous Revenue	30,213	3,101	20,000	16,899	545%
Transfers In	8,720,989	8,500,626	8,765,145	264,519	3.11%
Total Resources	\$ 9,087,112	\$ 9,521,704	\$ 8,805,145	(\$ 716,559)	-7.53%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	164,630	23,557	15,600	(7,957)	-33.78%
Supplies & Services	119,533	150,278	158,377	8,099	5.39%
Capital	7,633,356	8,442,761	6,967,512	(1,475,249)	-17.47%
Transfers Out	2,700,000	2,700,000	2,710,000	10,000	0.37%
Total Expenditures by Category	\$ 10,617,519	\$ 11,316,596	\$ 9,851,489	(\$ 1,465,107)	-12.95%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	10,617,519	11,316,596	9,851,489	(1,465,107)	-12.95%
Total Expenditures by Department	\$ 10,617,519	\$ 11,316,596	\$ 9,851,489	(\$ 1,465,107)	-12.95%

Projected Ending Fund Balance & Reserves	\$ 3,065,602	\$ 1,270,710	\$ 224,366	(\$ 1,046,344)	-82.34%
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SOFTBALL IMPROVEMENT FUND

To account for the cost of improving the facilities used for the City of Greeley adult softball programs; created per Greeley Municipal Code 4.48.010. Revenues are derived from non-city softball tournament fees.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 79,322	\$ 81,578	\$ 94,553	\$ 12,975	15.91%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,300	12,150	12,350	200	1.65%
Miscellaneous Revenue	1,016	1,000	1,125	125	12.50%
Total Resources	\$ 2,316	\$ 13,150	\$ 13,475	\$ 325	2.47%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	60	175	200	25	14.29%
Total Expenditures by Category	\$ 60	\$ 175	\$ 200	\$ 25	14.29%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	60	175	200	25	14.29%
Total Expenditures by Department	\$ 60	\$ 175	\$ 200	\$ 25	14.29%

Projected Ending Fund Balance & Reserves	\$ 81,578	\$ 94,553	\$ 107,828	\$ 13,275	14.04%
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FIRE EQUIPMENT ACQUISITION/REPLACEMENT FUND

To account for the costs of replacing and acquiring major equipment for the fire department.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 2,910,544	\$ 2,357,810	\$ 1,651,875	(\$ 705,935)	-29.94%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	876,309	885,072	893,923	8,851	1.00%
Miscellaneous Revenue	19,193	29,796	15,360	(14,436)	-48.45%
Transfers In	500,000	600,000	563,422	(36,578)	-6.10%
Total Resources	\$ 1,395,502	\$ 1,514,868	\$ 1,472,705	(\$ 42,163)	-2.78%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	159,168	124,856	127,881	3,025	2.42%
Capital	1,319,441	1,631,118	1,156,104	(475,014)	-29.12%
Debt	264,017	259,218	113,543	(145,675)	-56.20%
Transfers Out	205,610	205,611	205,611	-	-
Total Expenditures by Category	\$ 1,948,237	\$ 2,220,803	\$ 1,603,139	(\$ 617,664)	-27.81%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	1,948,237	2,220,803	1,603,139	(617,664)	-27.81%
Total Expenditures by Department	\$ 1,948,237	\$ 2,220,803	\$ 1,603,139	(\$ 617,664)	-27.81%

Projected Ending Fund Balance & Reserves	\$ 2,357,810	\$ 1,651,875	\$ 1,521,441	(\$ 130,434)	-7.90%
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QUALITY OF LIFE FUND

To account for the expenditures of the Quality of Life projects (recreational, parks, and cultural amenities) to be partially financed with a .3% increase in sales and use tax; created per Ordinance 50, 2002.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 10,003,458	\$ 10,032,996	\$ 2,931,943	(\$ 7,101,053)	-70.78%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	320	-	-	-	-
Intergovernmental Revenue	358,531	1,005,928	-	(1,005,928)	-100%
Miscellaneous Revenue	122,693	48,515	48,000	(515)	-1.06%
Bond Proceeds	-	-	-	-	-
Transfers In	5,235,691	6,043,652	6,426,475	382,823	6.33%
Total Resources	\$ 5,717,236	\$ 7,098,095	\$ 6,474,475	(\$ 623,620)	-8.79%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	70,152	290,537	-	(290,537)	-100%
Supplies & Services	44,244	145,142	42,400	(102,742)	-70.79%
Capital	2,841,389	12,280,639	5,475,000	(6,805,639)	-55.42%
Transfers Out	2,731,912	1,482,830	1,029,911	(452,919)	-30.54%
Total Expenditures by Category	\$ 5,687,697	\$ 14,199,148	\$ 6,547,311	(\$ 7,651,837)	-53.89%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	5,687,697	14,199,148	6,547,311	(7,651,837)	-53.89%
Total Expenditures by Department	\$ 5,687,697	\$ 14,199,148	\$ 6,547,311	(\$ 7,651,837)	-53.89%

Projected Ending Fund Balance & Reserves	\$ 10,032,996	\$ 2,931,943	\$ 2,859,107	(\$ 72,836)	-2.48%
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FASTER FUND

To account for the costs of roadway safety improvements, bridge repair, and transit support and expansion. Revenues are derived through vehicle registration fees and fines established or increased by the Colorado Funding Advancements for Surface Transportation and Economic Recovery Act (FASTER).

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 665,768	\$ 410,472	\$ 221,817	(\$ 188,655)	-45.96%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	597,377	629,000	629,000	-	-
Miscellaneous Revenue	5,217	1,500	1,500	-	-
Transfers In	165,000	-	-	-	-
Total Resources	\$ 767,594	\$ 630,500	\$ 630,500	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	18,337	-	10,000	10,000	-
Supplies & Services	371	700	700	-	-
Capital	1,004,183	818,455	505,000	(313,455)	-38.30%
Total Expenditures by Category	\$ 1,022,891	\$ 819,155	\$ 515,700	(\$ 303,455)	-37.04%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	1,022,891	819,155	515,700	(303,455)	-37.04%
Total Expenditures by Department	\$ 1,022,891	\$ 819,155	\$ 515,700	(\$ 303,455)	-37.04%

Projected Ending Fund Balance & Reserves	\$ 410,472	\$ 221,817	\$ 336,617	\$ 114,800	51.75%
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KEEP GREELEY MOVING FUND

To account for the costs of improvements and repairs for street related infrastructure improvements. Revenues are derived from .65% sales and use tax and a transfer of street development fees. Ordinance 1, 2016.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 3,153,810	\$ 2,301,399	\$ 1,809,174	(\$ 492,225)	-21.39%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	8,887	-	-	-	-
Taxes	12,165,066	12,185,069	12,647,792	462,723	3.80%
Miscellaneous Revenue	41,387	11,000	11,500	500	4.55%
Transfers In	2,700,000	2,700,000	2,700,000	-	-
Total Resources	\$ 14,915,340	\$ 14,896,069	\$ 15,359,292	\$ 463,223	3.11%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	674,945	20,000	20,000	-	-
Supplies & Services	2,141	2,200	2,300	100	4.55%
Capital	11,090,665	11,766,094	13,546,166	1,780,072	15.13%
Transfers Out	4,000,000	3,600,000	3,600,000	-	-
Total Expenditures by Category	\$ 15,767,751	\$ 15,388,294	\$ 17,168,466	\$ 1,780,172	11.57%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	15,767,751	15,388,294	17,168,466	1,780,172	11.57%
Total Expenditures by Department	\$ 15,767,751	\$ 15,388,294	\$ 17,168,466	\$ 1,780,172	11.57%

Projected Ending Fund Balance & Reserves	\$ 2,301,399	\$ 1,809,174	-	(\$ 1,809,174)	-100%
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2016 CITY CENTER FUND

To account for the costs of constructing and equipping a fire station and a municipal building. Revenues are derived from the Certificates of Participation Series 2016, General Fund operating transfers, and a state grant.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 4,604,624	\$ 2,186,076	\$ 1,991,076	(\$ 195,000)	-8.92%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	4,613	-	-	-	-
Miscellaneous Revenue	12,763	10,000	10,000	-	-
Transfers In	831,544	-	-	-	-
Total Resources	\$ 848,920	\$ 10,000	\$ 10,000	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	14,243	-	-	-	-
Supplies & Services	403,982	5,000	5,000	-	-
Capital	2,849,243	200,000	1,996,076	1,796,076	898%
Total Expenditures by Category	\$ 3,267,468	\$ 205,000	\$ 2,001,076	\$ 1,796,076	876%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	3,267,468	205,000	2,001,076	1,796,076	876%
Total Expenditures by Department	\$ 3,267,468	\$ 205,000	\$ 2,001,076	\$ 1,796,076	876%

Projected Ending Fund Balance & Reserves	\$ 2,186,076	\$ 1,991,076	-	(\$ 1,991,076)	-100%
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FIRE PROTECTION DEVELOPMENT FUND

To account for the cost of fire protection improvements on new development; created per Greeley Municipal Code 4.64. Revenues are derived from the collection of fees from developers.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 2,061,008	\$ 781,309	\$ 1,296,452	\$ 515,143	65.93%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	291,037	500,393	361,512	(138,881)	-27.75%
Miscellaneous Revenue	31,054	17,350	18,750	1,400	8.07%
Total Resources	\$ 322,091	\$ 517,743	\$ 380,262	(\$ 137,481)	-26.55%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	1,790	2,600	2,800	200	7.69%
Transfers Out	1,600,000	-	-	-	-
Total Expenditures by Category	\$ 1,601,790	\$ 2,600	\$ 2,800	\$ 200	7.69%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	1,601,790	2,600	2,800	200	7.69%
Total Expenditures by Department	\$ 1,601,790	\$ 2,600	\$ 2,800	\$ 200	7.69%

Projected Ending Fund Balance & Reserves	\$ 781,309	\$ 1,296,452	\$ 1,673,914	\$ 377,462	29.12%
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POLICE DEVELOPMENT FUND

To account for the cost of developing police protection improvements on new development; created per Municipal Code 4.64. Revenues are derived from the collection of fees from developers.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 549,188	\$ 495,119	\$ 353,003	(\$ 142,116)	-28.70%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	68,879	112,334	81,456	(30,878)	-27.49%
Miscellaneous Revenue	6,040	6,500	8,200	1,700	26.15%
Total Resources	\$ 74,919	\$ 118,834	\$ 89,656	(\$ 29,178)	-24.55%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	6,636	-	-	-	-
Supplies & Services	380	1,000	1,225	225	22.50%
Capital	116,081	259,950	200,000	(59,950)	-23.06%
Transfers Out	5,891	-	-	-	-
Total Expenditures by Category	\$ 128,988	\$ 260,950	\$ 201,225	(\$ 59,725)	-22.89%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	128,988	260,950	201,225	(59,725)	-22.89%
Total Expenditures by Department	\$ 128,988	\$ 260,950	\$ 201,225	(\$ 59,725)	-22.89%

Projected Ending Fund Balance & Reserves	\$ 495,119	\$ 353,003	\$ 241,434	(\$ 111,569)	-31.61%
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ISLAND GROVE DEVELOPMENT FUND

To account for the cost of capital improvements at Island Grove Park. Revenues are derived from a park development fee charged on all concession sales at the park and on facility use fees.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 200,626	\$ 230,908	(\$ 36,775)	(\$ 267,683)	-116%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	9,179	130,743	133,408	2,665	2.04%
Intergovernmental Revenue	-	-	40,000	40,000	-
Miscellaneous Revenue	19,866	22,749	23,282	533	2.34%
Transfers In	1,399	9,000	10,000	1,000	11.11%
Total Resources	\$ 30,445	\$ 162,492	\$ 206,690	\$ 44,198	27.20%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	163	175	200	25	14.29%
Capital	-	430,000	100,000	(330,000)	-76.74%
Total Expenditures by Category	\$ 163	\$ 430,175	\$ 100,200	(\$ 329,975)	-76.71%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	163	430,175	100,200	(329,975)	-76.71%
Total Expenditures by Department	\$ 163	\$ 430,175	\$ 100,200	(\$ 329,975)	-76.71%

Projected Ending Fund Balance & Reserves	\$ 230,908	(\$ 36,775)	\$ 69,715	\$ 106,490	-290%
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TRANSPORTATION DEVELOPMENT FUND

To account for the cost of constructing new roads and improvements to existing roads; created per Greeley Municipal Code 4.64. Revenues are derived from the collection of fees from developers.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,052,193	2,684,586	2,359,704	(324,882)	-12.10%
Intergovernmental Revenue	3,827,700	-	5,469,565	5,469,565	-
Miscellaneous Revenue	119,228	12,445	12,445	-	-
Transfers In	6,652,338	4,122,662	3,600,000	(522,662)	-12.68%
Total Resources	\$ 12,651,459	\$ 6,819,693	\$ 11,441,714	\$ 4,622,021	67.77%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	178,833	-	-	-	-
Supplies & Services	7,204	7,201	7,560	359	4.99%
Capital	9,044,284	20,004,343	11,043,685	(8,960,658)	-44.79%
Transfers Out	50,900	34,970	93,315	58,345	167%
Total Expenditures by Category	\$ 9,281,221	\$ 20,046,514	\$ 11,144,560	(\$ 8,901,954)	-44.41%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	9,281,221	20,046,514	11,144,560	(8,901,954)	-44.41%
Total Expenditures by Department	\$ 9,281,221	\$ 20,046,514	\$ 11,144,560	(\$ 8,901,954)	-44.41%

Projected Ending Fund Balance & Reserves	\$ 13,003,923	\$ 3,276,002	\$ 3,573,156	\$ 297,154	9.07%
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Timing of Expenditure Payments	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital	-	(3,498,900)	-	3,498,900	-100%
Timing of Expenditure Payments	-	(\$ 3,498,900)	-	\$ 3,498,900	-100%

PARK DEVELOPMENT FUND

To account for the cost of developing and improving city parks; created per Greeley Municipal Code 4.64. Revenues are derived from the collection of fees from developers.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 188,212	\$ 737,101	\$ 737,101	-	-

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,694,110	2,186,393	1,581,680	(604,713)	-27.66%
Miscellaneous Revenue	10,226	750	750	-	-
Total Resources	\$ 1,704,336	\$ 2,187,143	\$ 1,582,430	(\$ 604,713)	-27.65%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	478	500	500	-	-
Transfers Out	1,154,969	2,186,643	1,581,930	(604,713)	-27.65%
Total Expenditures by Category	\$ 1,155,447	\$ 2,187,143	\$ 1,582,430	(\$ 604,713)	-27.65%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	1,155,447	2,187,143	1,582,430	(604,713)	-27.65%
Total Expenditures by Department	\$ 1,155,447	\$ 2,187,143	\$ 1,582,430	(\$ 604,713)	-27.65%

Projected Ending Fund Balance & Reserves	\$ 737,101	\$ 737,101	\$ 737,101	-	-
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TRAILS DEVELOPMENT FUND

To account for the cost of acquisition and construction of linear parks and trails, open spaces, and trail systems; created per Greeley Municipal Code 4.64. Revenues are derived from the collection of fees from developers.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,242,916	\$ 1,422,160	\$ 1,188,360	(\$ 233,800)	-16.44%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	183,322	302,824	219,433	(83,391)	-27.54%
Intergovernmental Revenue	-	389,000	-	(389,000)	-100%
Miscellaneous Revenue	17,159	1,800	2,200	400	22.22%
Transfers In	-	25,000	-	(25,000)	-100%
Total Resources	\$ 200,481	\$ 718,624	\$ 221,633	(\$ 496,991)	-69.16%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	4,912	-	-	-	-
Supplies & Services	1,006	1,000	1,100	100	10.00%
Capital	14,520	949,424	100,000	(849,424)	-89.47%
Transfers Out	800	2,000	-	(2,000)	-100%
Total Expenditures by Category	\$ 21,238	\$ 952,424	\$ 101,100	(\$ 851,324)	-89.38%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital Projects	21,238	952,424	101,100	(851,324)	-89.38%
Total Expenditures by Department	\$ 21,238	\$ 952,424	\$ 101,100	(\$ 851,324)	-89.38%

Projected Ending Fund Balance & Reserves	\$ 1,422,160	\$ 1,188,360	\$ 1,308,893	\$ 120,533	10.14%
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ENTERPRISE FUNDS

Enterprise funds are used to report and activity for which a fee is charged to external users for goods or services.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 99,508,928	\$ 87,638,908	\$ 113,177,456	\$ 25,538,548	29.14%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	71,991,063	87,150,466	80,580,924	(6,569,542)	-7.54%
Fines & Forfeits	66,387	175,000	175,000	-	-
Intergovernmental Revenue	3,976,913	19,445,749	300	(19,445,449)	-100%
Licenses & Permits	4,725	32,000	30,000	(2,000)	-6.25%
Miscellaneous Revenue	3,359,394	5,892,439	20,950,130	15,057,691	256%
Bond Proceeds	-	148,050,000	17,000,000	(131,050,000)	-88.52%
Transfers In	1,654,547	328,689	536,653	207,964	63.27%
Total Resources	\$ 81,053,029	\$ 261,074,343	\$ 119,273,007	(\$ 141,801,336)	-54.31%

Resources by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Cemetery (400)	397,590	652,706	646,170	(6,536)	-1.00%
Municipal Golf Courses (401)	2,067,956	1,915,133	2,155,766	240,633	12.56%
Downtown Parking (402)	237,725	324,100	324,100	-	-
Sewer (411)	6,134,402	6,707,915	7,702,555	994,640	14.83%
Sewer Construction (412)	1,036,198	2,147,096	1,980,783	(166,313)	-7.75%
Sewer Capital Replacement (413)	4,145,564	32,995,422	4,501,784	(28,493,638)	-86.36%
Sewer Debt Service (414)	1,851,945	2,284,340	3,059,154	774,814	33.92%
Water (421)	24,265,515	38,792,501	29,040,522	(9,751,979)	-25.14%
Water Construction (422)	2,210,205	76,937,835	23,893,511	(53,044,324)	-68.94%
Water Capital Replacement (423)	13,136,839	46,359,383	8,914,150	(37,445,233)	-80.77%
Water Rights Acquisition (424)	2,886,081	32,395,503	433,296	(31,962,207)	-98.66%
Water Debt Service (425)	15,510,324	12,384,202	11,306,329	(1,077,873)	-8.70%
Stormwater (431)	2,849,573	2,942,852	3,269,884	327,032	11.11%
Stormwater Construction (432)	1,728,626	1,682,139	17,943,405	16,261,266	967%
Stormwater Replacement (433)	2,042,093	1,987,216	2,332,987	345,771	17.40%
Stormwater Debt Service (434)	552,392	566,000	1,768,611	1,202,611	212%
Total Resources by Fund	\$ 81,053,029	\$ 261,074,343	\$ 119,273,007	(\$ 141,801,336)	-54.31%

ENTERPRISE FUNDS

CONTINUED

Resources by Department	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Culture, Parks & Recreation	2,465,546	2,567,839	2,801,936	234,097	9.12%
Non-Departmental	5,212	1,100	1,100	-	-
Public Works	7,405,197	7,501,207	25,637,887	18,136,680	242%
Sewer	13,168,109	44,134,773	17,244,276	(26,890,497)	-60.93%
Water	58,008,965	206,869,424	73,587,808	(133,281,616)	-64.43%
Total Resources by Department	\$ 81,053,029	\$ 261,074,343	\$ 119,273,007	(\$ 141,801,336)	-54.31%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	15,136,077	16,203,243	18,269,080	2,065,837	12.75%
Supplies & Services	13,029,970	33,174,234	16,225,785	(16,948,449)	-51.09%
Capital	47,800,859	196,534,238	106,617,475	(89,916,763)	-45.75%
Debt	11,756,761	12,919,243	12,942,575	23,332	0.18%
Transfers Out	5,199,383	3,898,555	5,371,354	1,472,799	37.78%
Total Expenditures by Category	\$ 92,923,049	\$ 262,729,513	\$ 159,426,269	(\$ 103,303,244)	-39.32%

Expenditures by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Cemetery (400)	616,714	685,662	683,463	(2,199)	-0.32%
Municipal Golf Courses (401)	1,915,399	2,023,983	2,224,094	200,111	9.89%
Downtown Parking (402)	194,003	331,620	337,395	5,775	1.74%
Sewer (411)	6,555,838	7,817,104	7,862,236	45,132	0.58%
Sewer Construction (412)	980,867	6,500,754	2,082,604	(4,418,150)	-67.96%
Sewer Capital Replacement (413)	5,899,574	43,321,530	6,528,973	(36,792,557)	-84.93%
Sewer Debt Service (414)	1,285,195	1,375,244	1,378,844	3,600	0.26%
Water (421)	20,413,151	39,077,454	24,513,317	(14,564,137)	-37.27%
Water Construction (422)	6,204,238	75,807,790	46,030,189	(29,777,601)	-39.28%
Water Capital Replacement (423)	17,100,803	39,138,328	24,647,011	(14,491,317)	-37.03%
Water Rights Acquisition (424)	16,443,938	27,194,680	8,640,432	(18,554,248)	-68.23%
Water Debt Service (425)	9,941,012	10,886,381	10,925,681	39,300	0.36%
Stormwater (431)	2,485,053	2,840,820	3,445,598	604,778	21.29%
Stormwater Construction (432)	1,234,483	2,307,252	16,919,573	14,612,321	633%
Stormwater Replacement (433)	1,128,521	2,872,361	2,658,809	(213,552)	-7.43%
Stormwater Debt Service (434)	524,263	548,550	548,050	(500)	-0.09%
Total Expenditures by Fund	\$ 92,923,049	\$ 262,729,513	\$ 159,426,269	(\$ 103,303,244)	-39.32%

ENTERPRISE FUNDS

CONTINUED

Expenditures by Department	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Culture, Parks & Recreation	2,532,112	2,709,645	2,907,557	197,912	7.30%
Municipal Court	6,652	6,652	8,055	1,403	21.09%
Non-Departmental	4,571	-	-	-	-
Public Works	5,555,099	8,893,951	23,901,370	15,007,419	169%
Sewer	14,721,474	59,014,632	17,852,657	(41,161,975)	-69.75%
Water	70,103,141	192,104,633	114,756,630	(77,348,003)	-40.26%
Total Expenditures by Department	\$ 92,923,049	\$ 262,729,513	\$ 159,426,269	(\$ 103,303,244)	-39.32%

Projected Ending Fund Balance & Reserves	\$ 87,638,908	\$ 113,177,456	\$ 71,060,106	(\$ 42,117,350)	-37.21%
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Timing of Expenditure Payments	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Capital	-	(27,193,718)	1,964,088	29,157,806	-107%
Timing of Expenditure Payments	-	(\$ 27,193,718)	\$ 1,964,088	\$ 29,157,806	-107%

CEMETERY FUND

To account for user charges and expenses for operating, financing, and maintaining the Linn Grove Cemetery; created per Greeley Municipal Code 4.40.020.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 417,237	\$ 198,113	\$ 165,157	(\$ 32,956)	-16.63%

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Resources					
Charges for Services	260,943	345,270	345,270	-	-
Intergovernmental Revenue	10,946	-	-	-	-
Miscellaneous Revenue	103,308	60,900	60,900	-	-
Transfers In	22,394	246,536	240,000	(6,536)	-2.65%
Total Resources	\$ 397,590	\$ 652,706	\$ 646,170	(\$ 6,536)	-1.00%

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Expenditures by Category					
Salaries & Benefits	428,696	451,604	477,182	25,578	5.66%
Supplies & Services	164,636	217,058	206,281	(10,777)	-4.97%
Capital	23,381	17,000	-	(17,000)	-100%
Total Expenditures by Category	\$ 616,714	\$ 685,662	\$ 683,463	(\$ 2,199)	-0.32%

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Expenditures by Department					
Culture, Parks & Recreation	616,714	685,662	683,463	(2,199)	-0.32%
Total Expenditures by Department	\$ 616,714	\$ 685,662	\$ 683,463	(\$ 2,199)	-0.32%

Projected Ending Fund Balance & Reserves	\$ 198,113	\$ 165,157	\$ 127,864	(\$ 37,293)	-22.58%
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MUNICIPAL GOLF COURSES FUND

To account for user charges and expenses for operating, financing, and maintaining two municipal golf courses; created per Greeley Municipal Code 13.40.080.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 500,376	\$ 652,933	\$ 544,083	(\$ 108,850)	-16.67%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,043,893	1,913,533	1,939,666	26,133	1.37%
Intergovernmental Revenue	17,279	-	-	-	-
Miscellaneous Revenue	6,783	1,600	1,600	-	-
Transfers In	-	-	214,500	214,500	-
Total Resources	\$ 2,067,956	\$ 1,915,133	\$ 2,155,766	\$ 240,633	12.56%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	916,413	1,005,387	1,064,542	59,155	5.88%
Supplies & Services	970,700	900,528	849,052	(51,476)	-5.72%
Capital	10,692	-	214,500	214,500	-
Debt	17,594	115,068	96,000	(19,068)	-16.57%
Transfers Out	-	3,000	-	(3,000)	-100%
Total Expenditures by Category	\$ 1,915,399	\$ 2,023,983	\$ 2,224,094	\$ 200,111	9.89%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	1,915,399	2,023,983	2,224,094	200,111	9.89%
Total Expenditures by Department	\$ 1,915,399	\$ 2,023,983	\$ 2,224,094	\$ 200,111	9.89%

Projected Ending Fund Balance & Reserves	\$ 652,933	\$ 544,083	\$ 475,755	(\$ 68,328)	-12.56%
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DOWNTOWN PARKING FUND

To account for user charges and expenses for operating and maintaining the downtown parking areas.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 323,497	\$ 367,219	\$ 359,699	(\$ 7,520)	-2.05%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Fines & Forfeits	66,387	175,000	175,000	-	-
Intergovernmental Revenue	10,986	-	-	-	-
Miscellaneous Revenue	160,352	149,100	149,100	-	-
Total Resources	\$ 237,725	\$ 324,100	\$ 324,100	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	131,232	155,630	159,612	3,982	2.56%
Supplies & Services	62,772	175,990	177,783	1,793	1.02%
Total Expenditures by Category	\$ 194,003	\$ 331,620	\$ 337,395	\$ 5,775	1.74%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Municipal Court	6,652	6,652	8,055	1,403	21.09%
Non-Departmental	4,571	-	-	-	-
Public Works	182,781	324,968	329,340	4,372	1.35%
Total Expenditures by Department	\$ 194,003	\$ 331,620	\$ 337,395	\$ 5,775	1.74%

Projected Ending Fund Balance & Reserves	\$ 367,219	\$ 359,699	\$ 346,404	(\$ 13,295)	-3.70%
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SEWER FUND

To account for user charges and expenses for operations and maintenance of the City's sewer system.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 4,388,721	\$ 3,967,286	\$ 2,858,097	(\$ 1,109,189)	-27.96%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	5,031,308	6,502,915	7,499,555	996,640	15.33%
Intergovernmental Revenue	132,273	-	-	-	-
Licenses & Permits	-	32,000	30,000	(2,000)	-6.25%
Miscellaneous Revenue	970,821	173,000	173,000	-	-
Total Resources	\$ 6,134,402	\$ 6,707,915	\$ 7,702,555	\$ 994,640	14.83%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	3,561,487	3,726,331	3,850,520	124,189	3.33%
Supplies & Services	2,253,357	3,408,619	3,228,131	(180,488)	-5.30%
Transfers Out	740,994	682,154	783,585	101,431	14.87%
Total Expenditures by Category	\$ 6,555,838	\$ 7,817,104	\$ 7,862,236	\$ 45,132	0.58%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Sewer	6,555,838	7,817,104	7,862,236	45,132	0.58%
Total Expenditures by Department	\$ 6,555,838	\$ 7,817,104	\$ 7,862,236	\$ 45,132	0.58%

Projected Ending Fund Balance & Reserves	\$ 3,967,286	\$ 2,858,097	\$ 2,698,416	(\$ 159,681)	-5.59%
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SEWER CONSTRUCTION FUND

To account for major sewer system construction projects. Revenues are derived from revenue bonds and development fees.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 4,338,142	\$ 4,393,473	\$ 4,183,533	(\$ 209,940)	-4.78%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	983,589	2,128,591	1,959,456	(169,135)	-7.95%
Miscellaneous Revenue	52,609	18,505	21,327	2,822	15.25%
Total Resources	\$ 1,036,198	\$ 2,147,096	\$ 1,980,783	(\$ 166,313)	-7.75%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	48,925	-	-	-	-
Supplies & Services	3,248	4,270	7,502	3,232	75.69%
Capital	744,677	6,358,010	1,907,000	(4,451,010)	-70.01%
Transfers Out	184,017	138,474	168,102	29,628	21.40%
Total Expenditures by Category	\$ 980,867	\$ 6,500,754	\$ 2,082,604	(\$ 4,418,150)	-67.96%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Sewer	980,867	6,500,754	2,082,604	(4,418,150)	-67.96%
Total Expenditures by Department	\$ 980,867	\$ 6,500,754	\$ 2,082,604	(\$ 4,418,150)	-67.96%

Projected Ending Fund Balance & Reserves	\$ 4,393,473	\$ 4,183,533	\$ 860,124	(\$ 3,323,409)	-79.44%
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Timing of Expenditure Payments	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital	-	(4,143,718)	3,221,588	7,365,306	-178%
Timing of Expenditure Payments	-	(\$ 4,143,718)	\$ 3,221,588	\$ 7,365,306	-178%

SEWER CAPITAL REPLACEMENT FUND

To account for the cost of replacing exhausted components of the City's sewer system. Revenues are derived from replacement funds held in reserve.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 13,872,786	\$ 12,118,776	\$ 19,292,668	\$ 7,173,892	59.20%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	4,093,149	7,989,335	4,321,696	(3,667,639)	-45.91%
Miscellaneous Revenue	52,415	6,087	180,088	174,001	2,859%
Bond Proceeds	-	25,000,000	-	(25,000,000)	-100%
Total Resources	\$ 4,145,564	\$ 32,995,422	\$ 4,501,784	(\$ 28,493,638)	-86.36%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	153,516	-	-	-	-
Supplies & Services	9,589	13,076	925	(12,151)	-92.93%
Capital	5,736,468	43,308,454	6,528,048	(36,780,406)	-84.93%
Total Expenditures by Category	\$ 5,899,574	\$ 43,321,530	\$ 6,528,973	(\$ 36,792,557)	-84.93%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Sewer	5,899,574	43,321,530	6,528,973	(36,792,557)	-84.93%
Total Expenditures by Department	\$ 5,899,574	\$ 43,321,530	\$ 6,528,973	(\$ 36,792,557)	-84.93%

Projected Ending Fund Balance & Reserves	\$ 12,118,776	\$ 19,292,668	\$ 265,479	(\$ 19,027,189)	-98.62%
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Timing of Expenditure Payments	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital	-	(17,500,000)	17,000,000	34,500,000	-197%
Timing of Expenditure Payments	-	(\$ 17,500,000)	\$ 17,000,000	\$ 34,500,000	-197%

SEWER DEBT SERVICE FUND

To account for debt service payments of the City's sewer system.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 973,045	\$ 1,539,795	\$ 2,448,891	\$ 909,096	59.04%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,835,394	2,284,340	3,059,154	774,814	33.92%
Miscellaneous Revenue	16,551	-	-	-	-
Total Resources	\$ 1,851,945	\$ 2,284,340	\$ 3,059,154	\$ 774,814	33.92%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	964	5,000	5,000	-	-
Debt	1,284,231	1,370,244	1,373,844	3,600	0.26%
Total Expenditures by Category	\$ 1,285,195	\$ 1,375,244	\$ 1,378,844	\$ 3,600	0.26%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Sewer	1,285,195	1,375,244	1,378,844	3,600	0.26%
Total Expenditures by Department	\$ 1,285,195	\$ 1,375,244	\$ 1,378,844	\$ 3,600	0.26%

Projected Ending Fund Balance & Reserves	\$ 1,539,795	\$ 2,448,891	\$ 4,129,201	\$ 1,680,310	68.62%
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WATER FUND

To account for user charges and expenses for operations and maintenance of the City's water system.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 25,911,405	\$ 29,763,769	\$ 29,478,816	(\$ 284,953)	-0.96%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	22,570,418	23,675,348	28,853,369	5,178,021	21.87%
Intergovernmental Revenue	175,610	14,925,000	-	(14,925,000)	-100%
Miscellaneous Revenue	1,387,334	110,000	105,000	(5,000)	-4.55%
Transfers In	132,153	82,153	82,153	-	-
Total Resources	\$ 24,265,515	\$ 38,792,501	\$ 29,040,522	(\$ 9,751,979)	-25.14%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	7,706,791	8,972,086	10,602,032	1,629,946	18.17%
Supplies & Services	9,129,812	27,753,575	10,961,075	(16,792,500)	-60.51%
Capital	-	45,520	58,000	12,480	27.42%
Transfers Out	3,576,548	2,306,273	2,892,210	585,937	25.41%
Total Expenditures by Category	\$ 20,413,151	\$ 39,077,454	\$ 24,513,317	(\$ 14,564,137)	-37.27%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Water	20,413,151	39,077,454	24,513,317	(14,564,137)	-37.27%
Total Expenditures by Department	\$ 20,413,151	\$ 39,077,454	\$ 24,513,317	(\$ 14,564,137)	-37.27%

Projected Ending Fund Balance & Reserves	\$ 29,763,769	\$ 29,478,816	\$ 34,006,021	\$ 4,527,205	15.36%
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WATER CONSTRUCTION FUND

To account for major water system construction projects. Revenues are derived from revenue bonds and development fees.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 11,841,782	\$ 7,847,749	\$ 8,977,794	\$ 1,130,045	14.40%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,004,587	3,639,881	3,861,847	221,966	6.10%
Miscellaneous Revenue	205,618	5,247,954	20,031,664	14,783,710	282%
Bond Proceeds	-	68,050,000	-	(68,050,000)	-100%
Total Resources	\$ 2,210,205	\$ 76,937,835	\$ 23,893,511	(\$ 53,044,324)	-68.94%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	75,619	-	-	-	-
Supplies & Services	11,791	2,000	1,359	(641)	-32.05%
Capital	5,946,611	75,637,753	45,491,788	(30,145,965)	-39.86%
Transfers Out	170,217	168,037	537,042	369,005	220%
Total Expenditures by Category	\$ 6,204,238	\$ 75,807,790	\$ 46,030,189	(\$ 29,777,601)	-39.28%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Water	6,204,238	75,807,790	46,030,189	(29,777,601)	-39.28%
Total Expenditures by Department	\$ 6,204,238	\$ 75,807,790	\$ 46,030,189	(\$ 29,777,601)	-39.28%

Projected Ending Fund Balance & Reserves	\$ 7,847,749	\$ 8,977,794	\$ 5,098,616	(\$ 3,879,178)	-43.21%
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Timing of Expenditure Payments	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital	-	-	(18,257,500)	(18,257,500)	-
Timing of Expenditure Payments	-	-	(\$ 18,257,500)	(\$ 18,257,500)	-

WATER CAPITAL REPLACEMENT FUND

To account for the cost of replacing exhausted components of the City's water system. Revenues are derived from replacement funds held in reserve.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 7,285,621	\$ 3,321,658	\$ 16,092,713	\$ 12,771,055	384%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	9,448,366	18,317,309	8,828,316	(9,488,993)	-51.80%
Intergovernmental Revenue	3,611,492	4,520,449	-	(4,520,449)	-100%
Miscellaneous Revenue	76,981	21,625	85,834	64,209	297%
Bond Proceeds	-	23,500,000	-	(23,500,000)	-100%
Total Resources	\$ 13,136,839	\$ 46,359,383	\$ 8,914,150	(\$ 37,445,233)	-80.77%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	180,619	-	-	-	-
Supplies & Services	24,256	2,379	4,857	2,478	104%
Capital	16,895,927	39,086,439	24,642,154	(14,444,285)	-36.95%
Transfers Out	-	49,510	-	(49,510)	-100%
Total Expenditures by Category	\$ 17,100,803	\$ 39,138,328	\$ 24,647,011	(\$ 14,491,317)	-37.03%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Water	17,100,803	39,138,328	24,647,011	(14,491,317)	-37.03%
Total Expenditures by Department	\$ 17,100,803	\$ 39,138,328	\$ 24,647,011	(\$ 14,491,317)	-37.03%

Projected Ending Fund Balance & Reserves	\$ 3,321,658	\$ 16,092,713	\$ 359,852	(\$ 15,732,861)	-97.76%
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Timing of Expenditure Payments	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Capital	-	(5,550,000)	-	5,550,000	-100%
Timing of Expenditure Payments	-	(\$ 5,550,000)	-	\$ 5,550,000	-100%

WATER RIGHTS ACQUISITION FUND

To account for the purchase of water rights.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 16,829,781	\$ 3,271,924	\$ 8,472,747	\$ 5,200,823	159%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,310,329	850,000	350,000	(500,000)	-58.82%
Miscellaneous Revenue	75,753	45,503	83,296	37,793	83.06%
Bond Proceeds	-	31,500,000	-	(31,500,000)	-100%
Transfers In	1,500,000	-	-	-	-
Total Resources	\$ 2,886,081	\$ 32,395,503	\$ 433,296	(\$ 31,962,207)	-98.66%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	25,841	-	-	-	-
Supplies & Services	5,225	11,233	22,432	11,199	100%
Capital	16,412,872	27,183,447	8,618,000	(18,565,447)	-68.30%
Total Expenditures by Category	\$ 16,443,938	\$ 27,194,680	\$ 8,640,432	(\$ 18,554,248)	-68.23%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Water	16,443,938	27,194,680	8,640,432	(18,554,248)	-68.23%
Total Expenditures by Department	\$ 16,443,938	\$ 27,194,680	\$ 8,640,432	(\$ 18,554,248)	-68.23%

Projected Ending Fund Balance & Reserves	\$ 3,271,924	\$ 8,472,747	\$ 265,611	(\$ 8,207,136)	-96.87%
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WATER DEBT SERVICE FUND

To account for debt service payments of the City's water system.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 8,372,301	\$ 13,941,613	\$ 15,439,434	\$ 1,497,821	10.74%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	15,344,911	12,384,202	11,306,329	(1,077,873)	-8.70%
Miscellaneous Revenue	165,413	-	-	-	-
Total Resources	\$ 15,510,324	\$ 12,384,202	\$ 11,306,329	(\$ 1,077,873)	-8.70%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	10,065	-	-	-	-
Debt	9,930,947	10,886,381	10,925,681	39,300	0.36%
Total Expenditures by Category	\$ 9,941,012	\$ 10,886,381	\$ 10,925,681	\$ 39,300	0.36%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Water	9,941,012	10,886,381	10,925,681	39,300	0.36%
Total Expenditures by Department	\$ 9,941,012	\$ 10,886,381	\$ 10,925,681	\$ 39,300	0.36%

Projected Ending Fund Balance & Reserves	\$ 13,941,613	\$ 15,439,434	\$ 15,820,082	\$ 380,648	2.47%
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STORMWATER FUND

To account for user charges and expenses for operating and maintaining the City's stormwater system. Revenues are derived from stormwater user fees.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,688,215	\$ 2,052,735	\$ 2,154,767	\$ 102,032	4.97%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,781,305	2,915,445	3,242,477	327,032	11.22%
Intergovernmental Revenue	18,326	300	300	-	-
Licenses & Permits	4,725	-	-	-	-
Miscellaneous Revenue	45,217	27,107	27,107	-	-
Total Resources	\$ 2,849,573	\$ 2,942,852	\$ 3,269,884	\$ 327,032	11.11%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,848,633	1,892,205	2,115,192	222,987	11.78%
Supplies & Services	381,102	676,010	756,815	80,805	11.95%
Capital	2,381	-	-	-	-
Transfers Out	252,937	272,605	573,591	300,986	110%
Total Expenditures by Category	\$ 2,485,053	\$ 2,840,820	\$ 3,445,598	\$ 604,778	21.29%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Works	2,485,053	2,840,820	3,445,598	604,778	21.29%
Total Expenditures by Department	\$ 2,485,053	\$ 2,840,820	\$ 3,445,598	\$ 604,778	21.29%

Projected Ending Fund Balance & Reserves	\$ 2,052,735	\$ 2,154,767	\$ 1,979,053	(\$ 175,714)	-8.15%
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STORMWATER CONSTRUCTION FUND

To account for major stormwater construction projects. Revenues are derived from revenue bonds and development fees.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,092,273	\$ 1,586,416	\$ 961,303	(\$ 625,113)	-39.40%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,716,512	1,666,406	927,593	(738,813)	-44.34%
Miscellaneous Revenue	12,114	15,733	15,812	79	0.50%
Bond Proceeds	-	-	17,000,000	17,000,000	-
Total Resources	\$ 1,728,626	\$ 1,682,139	\$ 17,943,405	\$ 16,261,266	967%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	52,318	-	-	-	-
Supplies & Services	875	2,196	2,273	77	3.51%
Capital	906,619	2,026,554	16,500,476	14,473,922	714%
Transfers Out	274,671	278,502	416,824	138,322	49.67%
Total Expenditures by Category	\$ 1,234,483	\$ 2,307,252	\$ 16,919,573	\$ 14,612,321	633%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Works	1,234,483	2,307,252	16,919,573	14,612,321	633%
Total Expenditures by Department	\$ 1,234,483	\$ 2,307,252	\$ 16,919,573	\$ 14,612,321	633%

Projected Ending Fund Balance & Reserves	\$ 1,586,416	\$ 961,303	\$ 1,985,135	\$ 1,023,832	107%
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STORMWATER REPLACEMENT FUND

To account for the cost of replacing exhausted components of the City's stormwater system. Revenues are derived from replacement funds held in reserve.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,350,866	\$ 2,264,438	\$ 1,379,293	(\$ 885,145)	-39.09%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,018,399	1,971,891	2,317,585	345,694	17.53%
Miscellaneous Revenue	23,695	15,325	15,402	77	0.50%
Total Resources	\$ 2,042,093	\$ 1,987,216	\$ 2,332,987	\$ 345,771	17.40%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	5,987	-	-	-	-
Supplies & Services	1,304	1,300	1,300	-	-
Capital	1,121,230	2,871,061	2,657,509	(213,552)	-7.44%
Transfers Out	-	-	-	-	-
Total Expenditures by Category	\$ 1,128,521	\$ 2,872,361	\$ 2,658,809	(\$ 213,552)	-7.43%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Works	1,128,521	2,872,361	2,658,809	(213,552)	-7.43%
Total Expenditures by Department	\$ 1,128,521	\$ 2,872,361	\$ 2,658,809	(\$ 213,552)	-7.43%

Projected Ending Fund Balance & Reserves	\$ 2,264,438	\$ 1,379,293	\$ 1,053,471	(\$ 325,822)	-23.62%
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STORMWATER DEBT SERVICE FUND

To account for debt service payments of the City's stormwater system.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 322,881	\$ 351,011	\$ 368,461	\$ 17,450	4.97%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	547,962	566,000	1,768,611	1,202,611	212%
Miscellaneous Revenue	4,431	-	-	-	-
Total Resources	\$ 552,392	\$ 566,000	\$ 1,768,611	\$ 1,202,611	212%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	273	1,000	1,000	-	-
Debt	523,989	547,550	547,050	(500)	-0.09%
Total Expenditures by Category	\$ 524,263	\$ 548,550	\$ 548,050	(\$ 500)	-0.09%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Works	524,263	548,550	548,050	(500)	-0.09%
Total Expenditures by Department	\$ 524,263	\$ 548,550	\$ 548,050	(\$ 500)	-0.09%

Projected Ending Fund Balance & Reserves	\$ 351,011	\$ 368,461	\$ 1,589,022	\$ 1,220,561	331%
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INTERNAL SERVICE FUNDS

Internal Service Funds are established to account for goods and services provided by one department of the City to other departments of the City, or to other agencies, on a cost- reimbursement basis.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 19,421,270	\$ 22,026,141	\$ 18,608,608	(\$ 3,417,533)	-15.52%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	28,256,933	30,086,623	33,317,151	3,230,528	10.74%
Intergovernmental Revenue	158,011	-	-	-	-
Miscellaneous Revenue	722,951	548,640	624,158	75,518	13.76%
Transfers In	1,926,016	1,770,806	2,853,446	1,082,640	61.14%
Total Resources	\$ 31,063,910	\$ 32,406,069	\$ 36,794,755	\$ 4,388,686	13.54%

Resources by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Health (500)	14,890,622	16,128,731	17,685,510	1,556,779	9.65%
Workers' Compensation (501)	1,584,765	996,278	1,064,804	68,526	6.88%
Liability (502)	2,321,615	2,931,956	2,431,956	(500,000)	-17.05%
Communications (503)	140,213	255,618	249,276	(6,342)	-2.48%
Equipment Maintenance (511)	2,468,740	2,963,125	2,996,678	33,553	1.13%
Fleet Replacement (512)	3,213,898	2,885,689	2,696,044	(189,645)	-6.57%
Equipment Replacement (513)	-	-	3,935,532	3,935,532	-
Information Technology (521)	6,075,154	6,147,903	5,714,955	(432,948)	-7.04%
Information Technology Acquisition (522)	368,904	96,769	20,000	(76,769)	-79.33%
Total Resources by Fund	\$ 31,063,910	\$ 32,406,069	\$ 36,794,755	\$ 4,388,686	13.54%

INTERNAL SERVICE FUNDS

CONTINUED

Resources by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	15,000	-	702,040	702,040	-
Finance	140,213	255,618	249,276	(6,342)	-2.48%
Fire	53,500	90,996	1,697,899	1,606,903	1,766%
Human Resources	18,743,591	19,829,965	20,955,270	1,125,305	5.67%
Information Technology	6,444,057	6,244,672	5,734,955	(509,717)	-8.16%
Non-Departmental	53,410	227,000	429,500	202,500	89.21%
Police	45,350	45,350	1,247,633	1,202,283	2,651%
Public Works	5,568,789	5,712,468	5,778,182	65,714	1.15%
Total Resources by Department	\$ 31,063,910	\$ 32,406,069	\$ 36,794,755	\$ 4,388,686	13.54%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	4,247,334	4,581,677	5,166,312	584,635	12.76%
Supplies & Services	19,621,971	27,349,328	26,433,328	(916,000)	-3.35%
Capital	4,308,562	3,253,848	4,452,484	1,198,636	36.84%
Debt	138,749	138,749	138,748	(1)	0.00%
Transfers Out	142,424	500,000	553,446	53,446	10.69%
Total Expenditures by Category	\$ 28,459,039	\$ 35,823,602	\$ 36,744,318	\$ 920,716	2.57%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Health (500)	13,045,893	16,551,576	17,669,553	1,117,977	6.75%
Workers' Compensation (501)	1,054,872	1,722,799	1,777,137	54,338	3.15%
Liability (502)	1,577,890	2,670,904	2,332,743	(338,161)	-12.66%
Communications (503)	99,578	204,200	204,200	-	-
Equipment Maintenance (511)	2,466,109	2,938,797	3,051,946	113,149	3.85%
Fleet Replacement (512)	2,452,667	3,380,808	3,897,608	516,800	15.29%
Equipment Replacement (513)	-	-	1,236,686	1,236,686	-
Information Technology (521)	5,404,545	6,265,821	6,391,737	125,916	2.01%
Information Technology Acquisition (522)	2,357,485	2,088,697	182,708	(1,905,989)	-91.25%
Total Expenditures by Fund	\$ 28,459,039	\$ 35,823,602	\$ 36,744,318	\$ 920,716	2.57%

INTERNAL SERVICE FUNDS

CONTINUED

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	353,635	335,100	862,525	527,425	157%
Finance	99,578	204,200	204,200	-	-
Fire	-	-	478,296	478,296	-
Human Resources	15,678,655	20,945,279	21,779,433	834,154	3.98%
Information Technology	7,762,030	8,354,518	6,574,445	(1,780,073)	-21.31%
Non-Departmental	-	-	1,000	1,000	-
Police	-	-	350,354	350,354	-
Public Works	4,565,141	5,984,505	6,494,065	509,560	8.51%
Total Expenditures by Department	\$ 28,459,039	\$ 35,823,602	\$ 36,744,318	\$ 920,716	2.57%

Projected Ending Fund Balance & Reserves	\$ 22,026,141	\$ 18,608,608	\$ 18,659,045	\$ 50,437	0.27%
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HEALTH FUND

To account for the cost of providing a defined health benefit and dental insurance plan which covers substantially all regular full-time and regular part-time employees of the City.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 4,149,859	\$ 5,994,587	\$ 5,571,742	(\$ 422,845)	-7.05%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	14,787,783	15,983,231	17,520,010	1,536,779	9.61%
Intergovernmental Revenue	1,618	-	-	-	-
Miscellaneous Revenue	101,221	145,500	165,500	20,000	13.75%
Total Resources	\$ 14,890,622	\$ 16,128,731	\$ 17,685,510	\$ 1,556,779	9.65%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	128,185	140,639	204,116	63,477	45.13%
Supplies & Services	12,917,708	16,410,937	17,465,437	1,054,500	6.43%
Total Expenditures by Category	\$ 13,045,893	\$ 16,551,576	\$ 17,669,553	\$ 1,117,977	6.75%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Human Resources	13,045,893	16,551,576	17,669,553	1,117,977	6.75%
Total Expenditures by Department	\$ 13,045,893	\$ 16,551,576	\$ 17,669,553	\$ 1,117,977	6.75%

Projected Ending Fund Balance & Reserves	\$ 5,994,587	\$ 5,571,742	\$ 5,587,699	\$ 15,957	0.29%
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WORKERS' COMPENSATION FUND

To account for user charges and expenses for insuring the City for workers' compensation.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 5,170,161	\$ 5,700,054	\$ 4,973,533	(\$ 726,521)	-12.75%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,351,359	744,587	767,595	23,008	3.09%
Intergovernmental Revenue	20,834	-	-	-	-
Miscellaneous Revenue	212,572	251,691	297,209	45,518	18.08%
Total Resources	\$ 1,584,765	\$ 996,278	\$ 1,064,804	\$ 68,526	6.88%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	128,466	91,837	141,175	49,338	53.72%
Supplies & Services	926,405	1,630,962	1,635,962	5,000	0.31%
Total Expenditures by Category	\$ 1,054,872	\$ 1,722,799	\$ 1,777,137	\$ 54,338	3.15%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Human Resources	1,054,872	1,722,799	1,777,137	54,338	3.15%
Total Expenditures by Department	\$ 1,054,872	\$ 1,722,799	\$ 1,777,137	\$ 54,338	3.15%

Projected Ending Fund Balance & Reserves	\$ 5,700,054	\$ 4,973,533	\$ 4,261,200	(\$ 712,333)	-14.32%
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LIABILITY FUND

To account for user charges and expenses for providing a self-insurance program for liability claims against the City.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 904,936	\$ 1,648,661	\$ 1,909,713	\$ 261,052	15.83%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,696,048	2,405,956	2,405,956	-	-
Miscellaneous Revenue	125,567	26,000	26,000	-	-
Transfers In	500,000	500,000	-	(500,000)	-100%
Total Resources	\$ 2,321,615	\$ 2,931,956	\$ 2,431,956	(\$ 500,000)	-17.05%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	107,491	85,246	147,085	61,839	72.54%
Supplies & Services	1,383,775	2,585,658	2,185,658	(400,000)	-15.47%
Transfers Out	86,624	-	-	-	-
Total Expenditures by Category	\$ 1,577,890	\$ 2,670,904	\$ 2,332,743	(\$ 338,161)	-12.66%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Human Resources	1,577,890	2,670,904	2,332,743	(338,161)	-12.66%
Total Expenditures by Department	\$ 1,577,890	\$ 2,670,904	\$ 2,332,743	(\$ 338,161)	-12.66%

Projected Ending Fund Balance & Reserves	\$ 1,648,661	\$ 1,909,713	\$ 2,008,926	\$ 99,213	5.20%
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COMMUNICATIONS FUND

To account for user charges and expenses for providing copying and mailing services to City departments.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 610,089	\$ 650,724	\$ 702,142	\$ 51,418	7.90%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	132,688	254,618	248,276	(6,342)	-2.49%
Miscellaneous Revenue	7,524	1,000	1,000	-	-
Total Resources	\$ 140,213	\$ 255,618	\$ 249,276	(\$ 6,342)	-2.48%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	99,578	204,200	204,200	-	-
Total Expenditures by Category	\$ 99,578	\$ 204,200	\$ 204,200	-	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Finance	99,578	204,200	204,200	-	-
Total Expenditures by Department	\$ 99,578	\$ 204,200	\$ 204,200	-	-

Projected Ending Fund Balance & Reserves	\$ 650,724	\$ 702,142	\$ 747,218	\$ 45,076	6.42%
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EQUIPMENT MAINTENANCE FUND

To account for user charges and expenses for maintaining and replacing the City's equipment and vehicles.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 483,202	\$ 485,833	\$ 510,161	\$ 24,328	5.01%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,408,196	2,940,176	2,973,729	33,553	1.14%
Intergovernmental Revenue	32,814	-	-	-	-
Miscellaneous Revenue	27,730	22,949	22,949	-	-
Total Resources	\$ 2,468,740	\$ 2,963,125	\$ 2,996,678	\$ 33,553	1.13%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	766,000	791,063	923,942	132,879	16.80%
Supplies & Services	1,700,109	2,126,259	2,118,024	(8,235)	-0.39%
Capital	-	21,475	9,980	(11,495)	-53.53%
Total Expenditures by Category	\$ 2,466,109	\$ 2,938,797	\$ 3,051,946	\$ 113,149	3.85%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Public Works	2,466,109	2,938,797	3,051,946	113,149	3.85%
Total Expenditures by Department	\$ 2,466,109	\$ 2,938,797	\$ 3,051,946	\$ 113,149	3.85%

Projected Ending Fund Balance & Reserves	\$ 485,833	\$ 510,161	\$ 454,893	(\$ 55,268)	-10.83%
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FLEET REPLACEMENT FUND

To account for the replacement of the City's vehicles and related equipment.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 2,276,468	\$ 3,037,700	\$ 2,542,581	(\$ 495,119)	-16.30%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	3,013,635	2,805,689	2,616,044	(189,645)	-6.76%
Miscellaneous Revenue	185,263	80,000	80,000	-	-
Transfers In	15,000	-	-	-	-
Total Resources	\$ 3,213,898	\$ 2,885,689	\$ 2,696,044	(\$ 189,645)	-6.57%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	98,214	329,563	1,500	(328,063)	-100%
Capital	2,215,704	2,912,496	3,203,914	291,418	10.01%
Debt	138,749	138,749	138,748	(1)	0.00%
Transfers Out	-	-	553,446	553,446	-
Total Expenditures by Category	\$ 2,452,667	\$ 3,380,808	\$ 3,897,608	\$ 516,800	15.29%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	353,635	335,100	200,000	(135,100)	-40.32%
Fire	-	-	167,396	167,396	-
Police	-	-	136,050	136,050	-
Public Works	2,099,032	3,045,708	3,394,162	348,454	11.44%
Total Expenditures by Department	\$ 2,452,667	\$ 3,380,808	\$ 3,897,608	\$ 516,800	15.29%

Projected Ending Fund Balance & Reserves	\$ 3,037,700	\$ 2,542,581	\$ 1,341,017	(\$ 1,201,564)	-47.26%
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EQUIPMENT REPLACEMENT FUND

To account for planned small items of equipment among various City departments.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	-	-	-	-	-

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	-	-	1,072,086	1,072,086	-
Miscellaneous Revenue	-	-	10,000	10,000	-
Transfers In	-	-	2,853,446	2,853,446	-
Total Resources	-	-	\$ 3,935,532	\$ 3,935,532	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	-	-	176,804	176,804	-
Capital	-	-	1,059,882	1,059,882	-
Total Expenditures by Category	-	-	\$ 1,236,686	\$ 1,236,686	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	-	-	662,525	662,525	-
Fire	-	-	310,900	310,900	-
Non-Departmental	-	-	1,000	1,000	-
Police	-	-	214,304	214,304	-
Public Works	-	-	47,957	47,957	-
Total Expenditures by Department	-	-	\$ 1,236,686	\$ 1,236,686	-

Projected Ending Fund Balance & Reserves	-	-	\$ 2,698,846	\$ 2,698,846	-
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INFORMATION TECHNOLOGY FUND

To account for user charges and expenses for providing data processing and telecommunication services to other City departments.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 444,096	\$ 1,114,705	\$ 996,787	(\$ 117,918)	-10.58%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	4,857,490	4,875,597	5,713,455	837,858	17.18%
Intergovernmental Revenue	100,467	-	-	-	-
Miscellaneous Revenue	11,981	1,500	1,500	-	-
Transfers In	1,105,216	1,270,806	-	(1,270,806)	-100%
Total Resources	\$ 6,075,154	\$ 6,147,903	\$ 5,714,955	(\$ 432,948)	-7.04%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	2,956,983	3,472,892	3,749,994	277,102	7.98%
Supplies & Services	2,391,762	2,791,429	2,641,743	(149,686)	-5.36%
Capital	-	1,500	-	(1,500)	-100%
Transfers Out	55,800	-	-	-	-
Total Expenditures by Category	\$ 5,404,545	\$ 6,265,821	\$ 6,391,737	\$ 125,916	2.01%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Information Technology	5,404,545	6,265,821	6,391,737	125,916	2.01%
Total Expenditures by Department	\$ 5,404,545	\$ 6,265,821	\$ 6,391,737	\$ 125,916	2.01%

Projected Ending Fund Balance & Reserves	\$ 1,114,705	\$ 996,787	\$ 320,005	(\$ 676,782)	-67.90%
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INFORMATION TECHNOLOGY ACQUISITION FUND

To account for the acquisition and replacement of hardware and software.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 5,382,458	\$ 3,393,877	\$ 1,401,949	(\$ 1,991,928)	-58.69%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	9,734	76,769	-	(76,769)	-100%
Intergovernmental Revenue	2,278	-	-	-	-
Miscellaneous Revenue	51,092	20,000	20,000	-	-
Transfers In	305,800	-	-	-	-
Total Resources	\$ 368,904	\$ 96,769	\$ 20,000	(\$ 76,769)	-79.33%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	160,209	-	-	-	-
Supplies & Services	104,419	1,270,320	4,000	(1,266,320)	-100%
Capital	2,092,858	318,377	178,708	(139,669)	-43.87%
Transfers Out	-	500,000	-	(500,000)	-100%
Total Expenditures by Category	\$ 2,357,485	\$ 2,088,697	\$ 182,708	(\$ 1,905,989)	-91.25%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Information Technology	2,357,485	2,088,697	182,708	(1,905,989)	-91.25%
Total Expenditures by Department	\$ 2,357,485	\$ 2,088,697	\$ 182,708	(\$ 1,905,989)	-91.25%

Projected Ending Fund Balance & Reserves	\$ 3,393,877	\$ 1,401,949	\$ 1,239,241	(\$ 162,708)	-11.61%
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PERMANENT FUNDS

Permanent funds are used to report resources that are legally restricted to the extent that only earnings, not principal, may be used for purposes that support the City's programs.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,610,406	\$ 1,762,757	\$ 1,990,979	\$ 228,222	12.95%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	176,036	283,468	136,025	(147,443)	-52.01%
Total Resources	\$ 176,036	\$ 283,468	\$ 136,025	(\$ 147,443)	-52.01%

Resources by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Cemetery Endowment (601)	164,235	268,443	121,000	(147,443)	-54.93%
Petriken Memorial (603)	28	25	25	-	-
Memorials (605)	11,774	15,000	15,000	-	-
Total Resources by Fund	\$ 176,036	\$ 283,468	\$ 136,025	(\$ 147,443)	-52.01%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	1,292	1,710	34,510	32,800	1,918%
Transfers Out	22,394	53,536	72,800	19,264	35.98%
Total Expenditures by Category	\$ 23,685	\$ 55,246	\$ 107,310	\$ 52,064	94.24%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	217	7,710	66,310	58,600	760%
Non-Departmental	23,468	47,536	41,000	(6,536)	-13.75%
Total Expenditures by Department	\$ 23,685	\$ 55,246	\$ 107,310	\$ 52,064	94.24%

PERMANENT FUNDS

CONTINUED

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Cemetery Endowment (601)	23,468	47,536	41,000	(6,536)	-13.75%
Petriken Memorial (603)	2	10	10	-	-
Memorials (605)	215	7,700	66,300	58,600	761%
Total Expenditures by Fund	\$ 23,685	\$ 55,246	\$ 107,310	\$ 52,064	94.24%

Projected Ending Fund Balance & Reserves	\$ 1,762,757	\$ 1,990,979	\$ 2,019,694	\$ 28,715	1.44%
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CEMETERY ENDOWMENT FUND

To account for all funds granted, bequeathed, or devised to the City in trust for the preservation of lots in Linn Grove Cemetery; created per Greeley Municipal Code 4.40.010.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 1,242,899	\$ 1,383,666	\$ 1,604,573	\$ 220,907	15.97%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	164,235	268,443	121,000	(147,443)	-54.93%
Total Resources	\$ 164,235	\$ 268,443	\$ 121,000	(\$ 147,443)	-54.93%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	1,075	1,000	1,000	-	-
Transfers Out	22,394	46,536	40,000	(6,536)	-14.05%
Total Expenditures by Category	\$ 23,468	\$ 47,536	\$ 41,000	(\$ 6,536)	-13.75%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Non-Departmental	23,468	47,536	41,000	(6,536)	-13.75%
Total Expenditures by Department	\$ 23,468	\$ 47,536	\$ 41,000	(\$ 6,536)	-13.75%

Projected Ending Fund Balance & Reserves	\$ 1,383,666	\$ 1,604,573	\$ 1,684,573	\$ 80,000	4.99%
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PETRIKEN MEMORIAL FUND

To account for interest earnings on funds bequeathed to the City for the maintenance of the grave sites as specified by the J.G.B. Petriken will.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 2,235	\$ 2,261	\$ 2,276	\$ 15	0.66%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	28	25	25	-	-
Total Resources	\$ 28	\$ 25	\$ 25	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	2	10	10	-	-
Total Expenditures by Category	\$ 2	\$ 10	\$ 10	-	-

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	2	10	10	-	-
Total Expenditures by Department	\$ 2	\$ 10	\$ 10	-	-

Projected Ending Fund Balance & Reserves	\$ 2,261	\$ 2,276	\$ 2,291	\$ 15	0.66%
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MEMORIALS FUND

To account for interest earnings on funds bequeathed to the City as specified by the donor.

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Projected Beginning Fund Balance & Reserves	\$ 365,272	\$ 376,830	\$ 384,130	\$ 7,300	1.94%

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	11,774	15,000	15,000	-	-
Total Resources	\$ 11,774	\$ 15,000	\$ 15,000	-	-

Resources by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	11,774	15,000	15,000	-	-
Total Resources by Department	\$ 11,774	\$ 15,000	\$ 15,000	-	-

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	215	700	33,500	32,800	4,686%
Transfers Out	-	7,000	32,800	25,800	369%
Total Expenditures by Category	\$ 215	\$ 7,700	\$ 66,300	\$ 58,600	761%

Expenditures by Department	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Culture, Parks & Recreation	215	7,700	66,300	58,600	761%
Total Expenditures by Department	\$ 215	\$ 7,700	\$ 66,300	\$ 58,600	761%

Projected Ending Fund Balance & Reserves	\$ 376,830	\$ 384,130	\$ 332,830	(\$ 51,300)	-13.35%
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POLICY & ADMINISTRATION



Resources	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Charges for Services	22,931,282	24,336,090	26,656,966	2,320,876	9.54%
Fines & Forfeits	1,973,839	2,017,191	2,062,191	45,000	2.23%
Intergovernmental Revenue	719,312	1,520,510	850,000	(670,510)	-44.10%
Licenses & Permits	32,128	41,350	41,350	-	0.00%
Miscellaneous Revenue	885,184	218,541	283,259	64,718	29.61%
Transfers In	3,891,198	3,979,939	3,226,003	(753,936)	-18.94%
Use of Fund Balance	2,478,111	10,429,779	8,573,778	(1,856,001)	-17.80%
Total Resources	\$ 32,911,053	\$ 42,543,400	\$ 41,693,547	(\$ 849,853)	-2.00%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	9,806,620	12,053,919	13,693,727	1,639,808	13.60%
Supplies & Services	20,853,179	29,655,799	27,821,112	(1,834,687)	-6.19%
Transfers Out	145,211	500,000	-	(500,000)	-100.00%
Capital	2,106,043	333,682	178,708	(154,974)	-46.44%
Total Expenditures by Category	\$ 32,911,053	\$ 42,543,400	\$ 41,693,547	(\$ 849,853)	-2.00%

Expenditures by Department	2021 Revised		Proposed	\$ Change	% Change
	2020 Actual	Budget	Budget		
City Attorney's Office	1,771,883	2,312,400	2,488,501	176,101	7.62%
City Clerk	703,034	1,063,546	1,065,997	2,451	0.23%
City Manager's Office	1,483,481	2,094,360	2,412,233.00	317,873	15.18%
Communication & Engagement	1,769,030	2,706,529	2,813,553	107,024	3.95%
Economic Health & Housing	1,405,804	2,149,550	1,468,979	(680,571)	-31.66%
Human Resources	16,991,430	22,691,672	23,545,810	854,138	3.76%
Information Technology	7,762,030	8,354,518	6,574,445.00	(1,780,073)	-21.31%
Municipal Court	1,024,361	1,170,825	1,324,029	153,204	13.09%
Total Expenditures by Department	\$ 32,911,053	\$ 42,543,400	\$ 41,693,547	(\$ 849,853)	-2.00%

Policy & Administration includes City Attorney's Office, City Council & City Clerk's Office, City Manager's Office, Communication Services, Economic Health & Housing, Human Resources, Information Technology, and Municipal Court.





CITY ATTORNEY'S OFFICE

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Transfers In	644,295	658,850	805,124	146,274	22.20%
Use of Fund Balance	1,127,587	1,653,550	1,683,377	29,827	1.80%
Total Resources	\$ 1,771,883	\$ 2,312,400	\$ 2,488,501	\$ 176,101	7.62%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,630,885	2,161,581	2,282,976	121,395	5.62%
Supplies & Services	140,998	150,819	205,525	54,706	36.27%
Total Expenditures by Category	\$ 1,771,883	\$ 2,312,400	\$ 2,488,501	\$ 176,101	7.62%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	1,771,883	2,312,400	2,488,501	176,101	7.62%
Total Expenditures by Fund	\$ 1,771,883	\$ 2,312,400	\$ 2,488,501	\$ 176,101	7.62%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
CAO Administration	1,287,389	1,742,348	1,911,258	168,910	9.69%
Environmental & Water Resources	484,494	570,052	577,243	7,191	1.26%
Total Expenditures by Activity	\$ 1,771,883	\$ 2,312,400	\$ 2,488,501	\$ 176,101	7.62%

GENERAL DESCRIPTION

The **City Attorney's Office** is the legal advisor to the City of Greeley. The City Attorney's office represents the City Council, the City's boards and commissions, and the various City departments. This representation includes researching legal issues and providing legal opinions (both formal and informal); drafting and reviewing legal documents including contracts, ordinances, and resolutions; and representing the City, its officials, and employees in judicial and administrative proceedings.

In addition, the City Attorney's office prosecutes approximately 16,000 municipal court cases annually on behalf of the City. These municipal court cases consist of traffic and criminal offenses/infractions.

The City Attorney's office also protects the City's interests in all civil litigations filed by or against the City. This ranges from simple contract disputes to complicated federal constitutional cases.

Lastly, the **Environmental and Water Resources** Practice Group provides legal advice to the Water and Sewer Department. This specialized legal practice group advises the Water and Sewer Department on environmental and water resources issues. Additionally, the Environmental and Water Resources Practice Group provides legal advice and representation to the Water and Sewer Board in the execution of the Board's powers and duties as defined in the City Charter and Code.

CITY ATTORNEY'S OFFICE

CONTINUED

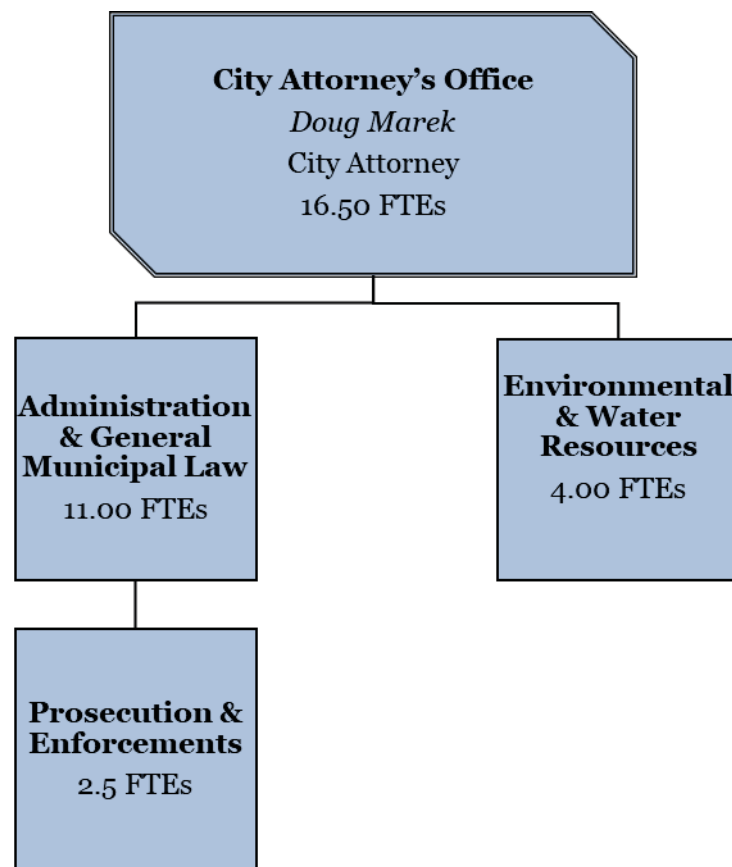
HOW THE DEPARTMENT IS ORGANIZED

Pursuant to Article VI of the City Charter, the City Attorney is appointed by the City Council. Pursuant to Section 2.16.030 of the City Code, Deputy and Assistant City Attorneys are appointed by the City Attorney. The City Attorney's Office is organized into two divisions: the General Legal Division and the Environmental and Water Resources Practice Group. The City Attorney supervises both groups.

The General Legal Division consists of the City Attorney, Deputy City Attorney, two Senior City Attorneys, one Assistant Attorney II, two Assistant City Attorney I's, three Legal Assistants, and one Administrative Specialist. The Deputy acts as the City Attorney in the City Attorney's absence.

The Environmental and Water Resources Practice Group consists of three Environmental and Water Resources Attorneys. These attorneys are exclusively paid through the Water Enterprise Fund and therefore their legal services are specialized and limited.

ORGANIZATIONAL CHART



CITY ATTORNEY'S OFFICE

CONTINUED

2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
PARALEGAL (OFFICE MANAGER)	CITY ATTORNEY'S OFFICE	\$ 98,269
REQUIRED WESTLAW IMPROVEMENTS & FEES	CITY ATTORNEY'S OFFICE	12,893
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 111,162

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
TRAINING & EQUIPMENT	CITY ATTORNEY'S OFFICE	\$ 14,357
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 14,357

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ASSISTANT ATTORNEY I	CITY ATTORNEY'S OFFICE	\$ 139,288
PROSECUTOR & SUPPORT STAFF CELLPHONES	CITY ATTORNEY'S OFFICE	5,640
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 144,928

UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
FURNITURE REPLACEMENT	CITY ATTORNEY'S OFFICE	\$ 7,200
TOTAL UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 7,200

FTE SUMMARY

City Attorney's Office	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administrative Specialist I	1.00	1.00	(1.00)	-
Assistant City Attorney I	2.00	1.50	-	1.50
Assistant City Attorney II	1.00	3.00	-	3.00
City Attorney	1.00	1.00	-	1.00
Deputy City Attorney	1.00	1.00	-	1.00
Legal Assistant	-	-	1.00	1.00
Paralegal	2.00	2.00	1.00	3.00
Senior Attorney	2.00	2.00	-	2.00
Environmental & Water Resources				
Environmental & Water Resource Attorney I	2.00	1.00	-	1.00
Environmental & Water Resource Attorney II	1.00	1.00	-	1.00
Paralegal	1.00	1.00	-	1.00
Senior Environmental & Water Resource Attorney	-	1.00	-	1.00
Total City Attorney's Office	14.00	15.50	1.00	16.50

CITY ATTORNEY'S OFFICE

CONTINUED

PERFORMANCE INDICATORS

- Complete and evaluate client outreach meetings for additional training opportunities
- Identify best practices through Legal Project Management methodologies
- Monitor and improve response rates and project completion
- Orient and support new executive leadership with legal overview and rules review

CITY COUNCIL & CITY CLERK'S OFFICE



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Licenses & Permits	32,128	41,350	41,350	-	-
Miscellaneous Revenue	6,081	-	-	-	-
Transfers In	63,466	85,062	255,716	170,654	200.62%
Use of Fund Balance	601,359	937,134	768,931	(168,203)	-17.95%
Total Resources	\$ 703,034	\$ 1,063,546	\$ 1,065,997	\$ 2,451	0.23%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	484,328	640,852	741,276	100,424	15.67%
Supplies & Services	218,705	422,694	324,721	(97,973)	-23.18%
Total Expenditures by Category	\$ 703,034	\$ 1,063,546	\$ 1,065,997	\$ 2,451	0.23%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	703,034	1,063,546	1,065,997	2,451	0.23%
Total Expenditures by Fund	\$ 703,034	\$ 1,063,546	\$ 1,065,997	\$ 2,451	0.23%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Boards & Commissions	27,134	31,471	39,214	7,743	24.60%
Clerk To Council	346,038	435,494	430,704	(4,790)	-1.10%
Council	110,488	144,617	147,203	2,586	1.79%
Elections	80,511	90,000	92,410	2,410	2.68%
Hearing Officer Support	22,991	32,755	51,863	19,108	58.34%
Liquor Licensing	11,170	52,284	60,053	7,769	14.86%
Records Management	104,702	276,925	244,550	(32,375)	-11.69%
Total Expenditures by Activity	\$ 703,034	\$ 1,063,546	\$ 1,065,997	\$ 2,451	0.23%

GENERAL DESCRIPTION

This Department accounts for legislative functions, including those related to the City Council and the City Clerk.

The **City Council** consists of the Mayor and six Councilmembers, all of whom are elected by the citizens of Greeley. As the official representative body for the city, the Council creates local laws (ordinances), makes other decisions pursuant to the City Charter, and provides policy guidance on matters which affect the sustained well-being and quality of life in the local area. The City Council also appoints the City Manager, City Attorney, and Municipal Court Judge.

CITY COUNCIL & CITY CLERK'S OFFICE

CONTINUED

The City Council's vision is as follows: Greeley promotes a healthy diverse economy and high quality of life responsive to all its residents and neighborhoods, thoughtfully managing its human and natural resources in a manner that creates and sustains a safe, unique, vibrant, and rewarding community in which to live, work and play.

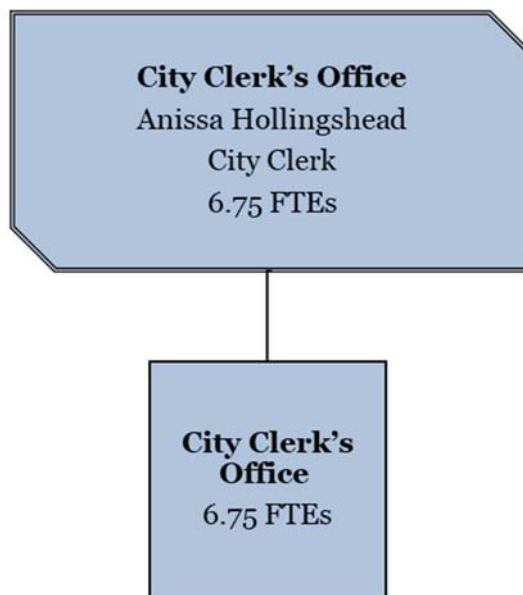
The **City Clerk** serves as clerk to the governing body, a custodian of the city laws and records, provides election administration, coordinates board and commission appointments, manages alcohol beverage licensing, and serves as administrative support to the City's Administrative Code Hearing Officer. The City Clerk is appointed by the City Manager, subject to formal approval by City Council.

The mission of the City Clerk's Office is to facilitate open access to city government, encourage civic participation, and provide prompt and courteous customer service.

HOW THE DEPARTMENT IS ORGANIZED

The department head is the City Clerk who reports to the City Manager. The department's six primary functions are clerk to Council, boards and commissions, elections, alcohol beverage licensing, records management, and clerk to the administrative code hearing officer. These functions are handled by a Clerical Assistant, two Administrative Assistants, two Assistant City Clerks, a Deputy City Clerk, and the City Clerk.

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
CITY CLERK'S OFFICE DEPARTMENT REORGANIZATION	CITY CLERK'S OFFICE	\$ 53,933
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 53,933

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
COLORADO OPEN RECORDS ACT (CORA) ORGANIZATIONAL MANAGEMENT REQUEST PLATFORM	CITY CLERK'S OFFICE	\$ 30,000
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 30,000

CITY COUNCIL & CITY CLERK'S OFFICE

CONTINUED

FTE SUMMARY

City Clerk's Office	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administrative Specialist II	1.50	1.50	0.25	1.75
Assistant City Clerk	2.00	2.00	1.00	3.00
City Clerk	1.00	1.00	-	1.00
Clerical Assistant	1.00	1.00	(1.00)	-
Deputy City Clerk	1.00	1.00	-	1.00
Total City Clerk's Office	6.50	6.50	0.25	6.75

PERFORMANCE INDICATORS

- Department Code Review Commitments
- RIM Internal Scorecard – Target 28
- Voter Participation





CITY MANAGER'S OFFICE

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	49,260	40,000	40,000	-	-
Transfers In	266,499	254,552	567,195	312,643	122.82%
Use of Fund Balance	1,167,722	1,799,808	1,805,038	5,230	0%
Total Resources	\$ 1,483,481	\$ 2,094,360	\$ 2,412,233	\$ 317,873	15.18%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,100,980	1,399,171	1,883,309	484,138	34.60%
Supplies & Services	382,501	695,189	528,924	(166,265)	-23.92%
Total Expenditures by Category	\$ 1,483,481	\$ 2,094,360	\$ 2,412,233	\$ 317,873	15.18%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	1,483,481	2,094,360	2,412,233	317,873	15.18%
Total Expenditures by Fund	\$ 1,483,481	\$ 2,094,360	\$ 2,412,233	\$ 317,873	15.18%

Expenditures by Division	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
City Managers Office	1,174,162	1,584,998	1,999,321	414,323	26.14%
Real Estate	309,320	509,362	412,912	(96,450)	-18.94%
Total Expenditures by Division	\$ 1,483,481	\$ 2,094,360	\$ 2,412,233	\$ 317,873	15.18%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Achieving Community Excellence (ACE)	185,284	112,000	122,000	10,000	8.93%
City Manager	988,878	1,472,998	1,877,321	404,323	27.45%
Real Estate	309,320	509,362	412,912	(96,450)	-18.94%
Total Expenditures by Activity	\$ 1,483,481	\$ 2,094,360	\$ 2,412,233	\$ 317,873	15.18%

CITY MANAGER'S OFFICE

CONTINUED

GENERAL DESCRIPTION

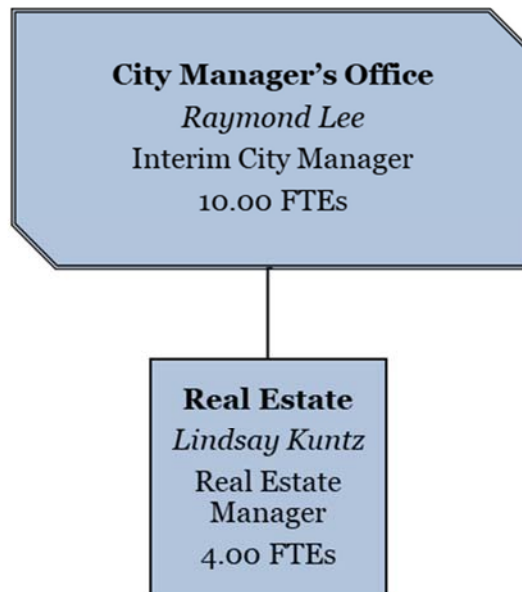
The **City Manager** is appointed by City Council as the chief administrative officer of the city. The City Manager oversees the various departments and projects of the city government to ensure the efficient provision of services to the citizens as determined by City Council policy, professional standards, and feedback from citizens. The City Manager also oversees the ACE (Achieving Community Excellence) Program which was created by the Greeley City Council to support its objective to improve Greeley Civic infrastructure. The City Manager is also responsible for the enforcement of local laws and for the assurance of sound fiscal and operational practices of the city.

HOW THE DEPARTMENT IS ORGANIZED

This department consists of the City Manager and two Assistant City Managers who are supported by a Senior Administrative Specialist. In addition, the Real Estate Division is housed in this office.

The City Manager is responsible for developing and delivering efficient services as prioritized by City Council.

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ASSISTANT CITY MANAGER	CITY MANAGER'S OFFICE	\$ 229,504
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 229,504

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
POLLING & COMMUNICATIONS	CITY MANAGER'S OFFICE	\$ 130,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 130,000

CITY MANAGER'S OFFICE

CONTINUED

FTE SUMMARY

City Manager's Office	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administrative Specialist II	1.00	1.00	-	1.00
Assistant to the City Manager	-	1.00	1.00	2.00
City Manager	1.00	1.00	-	1.00
Deputy City Manager	2.00	2.00	-	2.00
* Office of Human Affairs Director	-	-	-	-
Real Estate				
Real Estate Manager	1.00	1.00	-	1.00
Real Estate Specialist	1.00	2.00	-	2.00
Real Estate Technician	2.00	1.00	-	1.00
Total City Manager's Office	8.00	9.00	1.00	10.00

* Originally included in the first budget book version presented to Council but this position will be a contracted position and is therefore no longer included in the total full-time equivalent count for the City Manager's Office.

PERFORMANCE INDICATORS

- Continue momentum in Executive Team Leadership initiatives

REAL ESTATE

PURPOSE: Successful implementation of the City Manager's annual work program

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	49,260	40,000	40,000	-	-
Use of Fund Balance	260,060	469,362	372,912	(96,450)	-20.55%
Total Resources	\$ 309,320	\$ 509,362	\$ 412,912	(\$ 96,450)	-18.94%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	293,652	372,953	394,512	21,559	5.78%
Supplies & Services	15,668	136,409	18,400	(118,009)	-86.51%
Total Expenditures by Category	\$ 309,320	\$ 509,362	\$ 412,912	(\$ 96,450)	-18.94%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	309,320	509,362	412,912	(96,450)	-18.94%
Total Expenditures by Fund	\$ 309,320	\$ 509,362	\$ 412,912	(\$ 96,450)	-18.94%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Real Estate	309,320	509,362	412,912	(96,450)	-18.94%
Total Expenditures by Activity	\$ 309,320	\$ 509,362	\$ 412,912	(\$ 96,450)	-18.94%

ACTIVITY DESCRIPTION

The **Real Estate** area is a centralized location for all City real estate transactions. This team works with all other City departments to process and complete a variety of real estate matters.

COMMUNICATION & ENGAGEMENT



	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Resources					
Charges for Services	85,125	111,800	111,800	-	-
Miscellaneous Revenue	305	800	-	(800)	-100%
Transfers In	606,309	714,096	1,036,566	322,470	45.16%
Use of Fund Balance	1,077,291	1,879,833	1,665,187	(214,646)	-11.42%
Total Resources	\$ 1,769,030	\$ 2,706,529	\$ 2,813,553	\$ 107,024	3.95%

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Expenditures by Category					
Salaries & Benefits	1,017,536	1,524,046	1,716,714	192,668	12.64%
Supplies & Services	738,310	1,168,678	1,096,839	(71,839)	-6.15%
Capital	13,185	13,805	-	(13,805)	-100%
Total Expenditures by Category	\$ 1,769,030	\$ 2,706,529	\$ 2,813,553	\$ 107,024	3.95%

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Expenditures by Fund					
100 - General	1,581,696	2,533,354	2,662,053	128,699	5.08%
102 - Convention & Visitors	150,001	151,500	151,500	-	-
121 - Public Safety .16%	37,333	-	-	-	-
122 - Cable Franchise PEG Funds	-	21,675	-	(21,675)	-100%
Total Expenditures by Fund	\$ 1,769,030	\$ 2,706,529	\$ 2,813,553	\$ 107,024	3.95%

	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Expenditures by Activity					
Cable Franchise PEG Funds	37,333	21,675	-	(21,675)	-100%
Greeley Convention & Visitors Bureau	150,001	151,500	151,500	-	-
GTV8	91,784	110,057	115,560	5,503	5.00%
Image Campaign	352,399	477,927	428,543	(49,384)	-10.33%
Information Technology Charges	110,855	110,855	146,030	35,175	31.73%
Marketing Administration	723	-	-	-	-
Neighborhood Resources	100,165	82,582	40,791	(41,791)	-50.61%
Public Information	925,770	1,751,933	1,931,129	179,196	10.23%
Total Expenditures by Activity	\$ 1,769,030	\$ 2,706,529	\$ 2,813,553	\$ 107,024	3.95%

COMMUNICATION & ENGAGEMENT

CONTINUED

GENERAL DESCRIPTION

The **Communication & Engagement Director** is responsible for the City's strategic approach to internal and external communication and engagement initiatives, the City's brand strategy via the Image Campaign, the GTV8 channel/cable franchise, and the Neighborhood Resources office.

The Communication & Engagement Department (est. 2019) works to ensure residents know about City government functions, news, events and service. The team of communication professionals take pride in using best practices to tell the City's story in a clear, efficient, and dynamic way while fostering community dialogue to enrich civil engagement and increase public participation.

ACTIVITY DESCRIPTIONS

GTV8 - Greeley's government access channel. Find out what's going on in Greeley with episodes of *You Otto Know*, *Inside Greeley*, *Who's That with the Mayor*, or by watching your City Council in action. Episodes are available live or on demand, and on [YouTube](#). (Channel 8 is available to Comcast subscribers in Greeley, Evans and LaSalle and online for everyone).

Image Campaign - [MyGreeley](#) is a fresh approach to sharing and celebrating our community. MyGreeley is a fun, organic way to highlight all the things that as Greeley-ites, Greeley visitors, Greeley supporters or Greeley enthusiasts we are proud of, excited about, eager for, or otherwise want to celebrate as a point of pride in our community. Greeley's image is mutually fostered through partnership with Visit Greeley (the tourism arm) of the Greeley Area Chamber of Commerce.

Neighborhood Resource Office - We promote healthy neighborhoods through a variety of programs including Neighborhood Improvement Grants and Neighborhood Building Blocks.

Greeley Chamber of Commerce/Visit Greeley: Actively and collaboratively promotes Greeley as a destination for conferences, meetings, and events that result in room-night stays in Greeley lodging facilities, fosters Greeley tourism, and actively promotes the City's Image Campaign and provides other hospitality-related support that enhances the economic viability of Greeley.

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
WEB DEVELOPER	COMMUNICATION & ENGAGEMENT	\$ 95,794
PUBLIC PARTICIPATION & ENGAGEMENT SOFTWARE PLATFORM	COMMUNICATION & ENGAGEMENT	45,000
EXTERNAL POSTAGE	COMMUNICATION & ENGAGEMENT	8,680
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 149,474

COMMUNICATION & ENGAGEMENT

CONTINUED

FTE SUMMARY

Communication & Engagement	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
GTV8				
Television & Video Production Specialist	1.00	1.00	-	1.00
Image Campaign				
Communication & Engagement Manager	-	0.50	-	0.50
Neighborhood Resources				
Neighborhood Programs Specialist	1.00	1.00	(1.00)	-
Public Information				
Communication & Engagement Director	1.00	1.00	-	1.00
Communication & Engagement Manager	1.00	1.50	1.00	2.50
Communication Specialist I	-	1.00	-	1.00
Communication Specialist II	-	3.00	1.00	4.00
Communication Specialist III	1.00	2.00	-	2.00
Community Engagement Specialist	1.00	1.00	(1.00)	-
Digital Communication Supervisor	1.00	1.00	-	1.00
Electronic Media Specialist	1.00	1.00	-	1.00
Graphic Designer	2.00	2.00	-	2.00
Marketing Manager	1.00	-	-	-
Marketing Coordinator	4.00	-	-	-
Marketing Sponsorship Coordinator	0.75	-	-	-
Marketing Technician	1.00	-	-	-
Web Developer	-	-	1.00	1.00
Total Communication & Engagement	16.75	16.00	1.00	17.00

PERFORMANCE INDICATORS

- Implement service level agreements
- Define Standard Operating Procedures (SOP) within C&E
- Identify opportunities to measure and assess C&E as a support service
- Image campaign/image strategy
- Enhance internal communication



ECONOMIC HEALTH & HOUSING



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	594,116	1,520,510	850,000	(670,510)	-44.10%
Miscellaneous Revenue	430,276	-	-	-	-
Transfers In	184,843	238,329	254,335	16,006	6.72%
Use of Fund Balance	196,569	390,711	364,644	(26,067)	-6.67%
Total Resources	\$ 1,405,804	\$ 2,149,550	\$ 1,468,979	(\$ 680,571)	-31.66%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	626,230	616,787	650,589	33,802	5.48%
Supplies & Services	776,787	1,532,763	818,390	(714,373)	-46.61%
Transfers Out	2,787	-	-	-	-
Total Expenditures by Category	\$ 1,405,804	\$ 2,149,550	\$ 1,468,979	(\$ 680,571)	-31.66%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	563,313	1,257,471	622,861	(634,610)	-50.47%
103 - Community Development	842,491	892,079	846,118	(45,961)	-5.15%
Total Expenditures by Fund	\$ 1,405,804	\$ 2,149,550	\$ 1,468,979	(\$ 680,571)	-31.66%

Expenditures by Division	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Economic Development	563,313	1,257,471	622,861	(634,610)	-50.47%
Urban Renewal Authority	842,491	892,079	846,118	(45,961)	-5.15%
Total Expenditures by Division	\$ 1,405,804	\$ 2,149,550	\$ 1,468,979	(\$ 680,571)	-31.66%

GENERAL DESCRIPTION

The **Economic Health and Housing Director** reports to the Assistant City Manager for Community Building and is responsible for ensuring that City Council priorities for economic development are accomplished, to include execution of a proactive business retention and expansion (BR&E) program, recruitment of primary industry, serving as a business liaison, focused efforts on economic initiatives, facilitate continued Downtown redevelopment, implement strategic housing plans, and maintaining local, regional and state relationships.

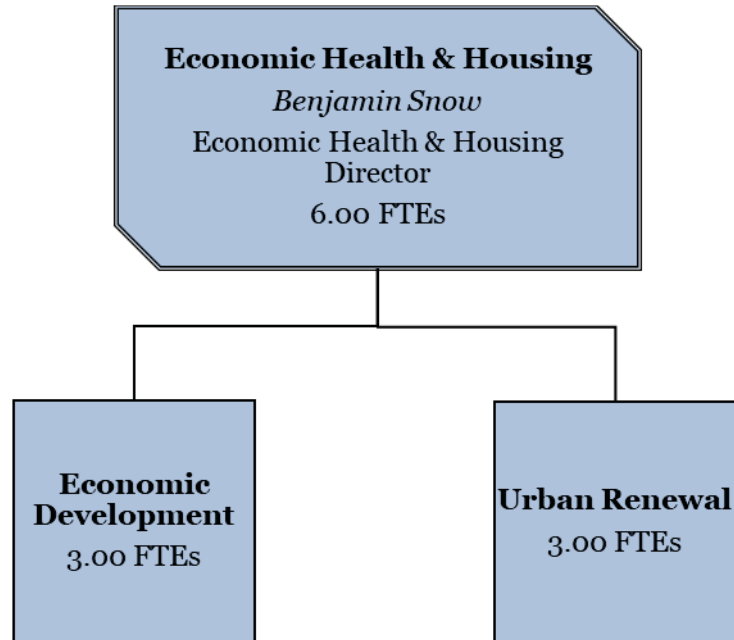
HOW THE DEPARTMENT IS ORGANIZED

This department consists of two divisions: Economic Development and Greeley Urban Renewal Authority.

ECONOMIC HEALTH & HOUSING

CONTINUED

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
HOUSING MANAGER	ECONOMIC HEALTH & HOUSING	\$ 125,188
WORKFORCE DEVELOPMENT	ECONOMIC HEALTH & HOUSING	50,000
MARKETING	ECONOMIC HEALTH & HOUSING	25,000
HIGH PLAINS HOUSING DEVELOPMENT CORPORATION	ECONOMIC HEALTH & HOUSING	24,000
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 224,188

UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ADDITIONAL G-HOPE (GREELEY HOME OWNERSHIP PROGRAM FOR EMPLOYEES) PROGRAM FUNDS	ECONOMIC HEALTH & HOUSING	\$ 50,000
TOTAL UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 50,000

ECONOMIC HEALTH & HOUSING

CONTINUED

FTE SUMMARY

Economic Health & Housing	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Economic Health & Housing Director	1.00	1.00	-	1.00
Economic Development Manager	1.00	1.00	-	1.00
Economic Development Specialist	1.00	-	-	-
Economic Development Coordinator	1.00	1.00	-	1.00
Urban Renewal				
Grant Specialist	1.00	1.00	-	1.00
Senior Administrative Specialist	1.00	1.00	-	1.00
Urban Renewal Manager	1.00	1.00	-	1.00
Total Economic Health & Housing	7.00	6.00	-	6.00

PERFORMANCE INDICATORS

- Businesses
 - (x) Number of business retention visits completed
 - (x) Number of business interactions & service requests
 - (x) Number of unique webpage hits
 - Number of new business development leads generated
 - Number of new jobs created
 - Dollar amount of new capital investment
 - Number of companies assisted with business recovery tools
 - Housing
 - Number of overall new housing units built
 - Number of affordable housing units built
 - Dollar amount of TIF district funds used for redevelopment activities
- (x) = in performance measures database

ECONOMIC DEVELOPMENT

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	-	670,510	-	(670,510)	-100%
Transfers In	150,300	172,179	188,185	16,006	9.30%
Use of Fund Balance	413,013	414,782	434,676	19,894	4.80%
Total Resources	\$ 563,313	\$ 1,257,471	\$ 622,861	(\$ 634,610)	-50.47%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	399,997	375,416	396,938	21,522	5.73%
Supplies & Services	160,529	882,055	225,923	(656,132)	-74.39%
Transfers Out	2,787	-	-	-	-
Total Expenditures by Category	\$ 563,313	\$ 1,257,471	\$ 622,861	(\$ 634,610)	-50.47%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	563,313	1,257,471	622,861	(634,610)	-50.47%
Total Expenditures by Fund	\$ 563,313	\$ 1,257,471	\$ 622,861	(\$ 634,610)	-50.47%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Economic Development	456,063	1,257,471	622,861	(634,610)	-50.47%
Upstate Colorado	107,250	-	-	-	-
Total Expenditures by Activity	\$ 563,313	\$ 1,257,471	\$ 622,861	(\$ 634,610)	-50.47%

ACTIVITY DESCRIPTIONS

Downtown Development Authority - The Downtown Development Authority has a mission of economic redevelopment in a 55-block area of the historic commercial core of Greeley. A revitalized downtown serves as an enhancement to the quality of life of residents, adding to their options for shopping, services and entertainment. Downtown also serves as an enhancement to other economic development efforts and a source of tax revenue for the community.

Small Business Development Center - An organization that provides services to small business owners in the Weld County area, including training, resource library access, business counseling, and maintenance of the Hispanic Small Business Loan Program.

Upstate Colorado Economic Development - To create and attract new business enterprises to Greeley and Weld County, help retain and expand existing businesses, provide quality job opportunities and income growth, and an increased tax base thereby improving the quality of life for area residents.

GREELEY URBAN RENEWAL AUTHORITY

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Intergovernmental Revenue	594,116	850,000	850,000	-	-
Miscellaneous Revenue	430,276	-	-	-	-
Transfers In	34,543	66,150	66,150	-	-
Use of Fund Balance	(216,444)	(24,071)	(70,032)	(45,961)	190.94%
Total Resources	\$ 842,491	\$ 892,079	\$ 846,118	(\$ 45,961)	-5.15%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	226,233	241,371	253,651	12,280	5.09%
Supplies & Services	616,258	650,708	592,467	(58,241)	-8.95%
Total Expenditures by Category	\$ 842,491	\$ 892,079	\$ 846,118	(\$ 45,961)	-5.15%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
103 - Community Development	842,491	892,079	846,118	(45,961)	-5.15%
Total Expenditures by Fund	\$ 842,491	\$ 892,079	\$ 846,118	(\$ 45,961)	-5.15%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
CDBG-CV CARES ACT GRANT	70,709	50,530	-	(50,530)	-100%
Home - Repay	170,057	169,644	173,990	4,346	2.56%
Investment Earnings	478	-	-	-	-
NE Greeley Neigh Improve	601,246	671,905	672,128	223	0.03%
Total Expenditures by Activity	\$ 842,491	\$ 892,079	\$ 846,118	(\$ 45,961)	-5.15%

ACTIVITY DESCRIPTION

The Greeley Urban Renewal Authority division uses federally funded entitlement grants to enhance physically or economically stressed areas.





HUMAN RESOURCES

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	17,835,489	19,133,774	20,693,561	1,559,787	8.15%
Intergovernmental Revenue	22,452	-	-	-	-
Miscellaneous Revenue	386,136	196,191	261,709	65,518	33.40%
Transfers In	698,769	742,244	291,067	(451,177)	-60.79%
Use of Fund Balance	(1,951,416)	2,619,463	2,299,473	(319,990)	-12.22%
Total Resources	\$ 16,991,430	\$ 22,691,672	\$ 23,545,810	\$ 854,138	3.76%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,047,415	1,421,836	1,708,826	286,990	20.18%
Supplies & Services	15,857,391	21,269,836	21,836,984	567,148	2.67%
Transfers Out	86,624	-	-	-	-
Total Expenditures by Category	\$ 16,991,430	\$ 22,691,672	\$ 23,545,810	\$ 854,138	3.76%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	1,312,775	1,746,393	1,766,377	19,984	1.14%
500 - Health	13,045,893	16,551,576	17,669,553	1,117,977	6.75%
501 - Workers' Compensation	1,054,872	1,722,799	1,777,137	54,338	3.15%
502 - Liability	1,577,890	2,670,904	2,332,743	(338,161)	-12.66%
Total Expenditures by Fund	\$ 16,991,430	\$ 22,691,672	\$ 23,545,810	\$ 854,138	3.76%

HUMAN RESOURCES

CONTINUED

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Administration	812,699	1,217,109	1,412,050	194,941	16.02%
Claims	796,312	1,715,246	1,377,085	(338,161)	-19.72%
Claims Administration	12,295,305	15,607,361	16,771,023	1,163,662	7.46%
Contractual Services	680,129	1,118,687	1,168,025	49,338	4.41%
HR Ops	315,508	128,182	32,724	(95,458)	-74.47%
HR Ops 2	14,596	68,500	153,500	85,000	124%
Insurance & Bonds	1,150,879	1,556,458	1,556,458	-	-
Investment Earnings	13,006	8,312	13,312	5,000	60.15%
On Site Health Clinic	594,257	733,400	733,400	-	-
Recruitment & Selection	169,972	332,602	168,103	(164,499)	-49.46%
Wellness	148,768	205,815	160,130	(45,685)	-22.20%
Total Expenditures by Activity	\$ 16,991,430	\$ 22,691,672	\$ 23,545,810	\$ 854,138	3.76%

GENERAL DESCRIPTION

The **Human Resources** Department develops and administers programs designed to assist departments and supervisors in enhancing employee work-life quality, encouraging productivity, increasing job satisfaction, and supporting employee growth and development. The department is also responsible for the City's risk management program.

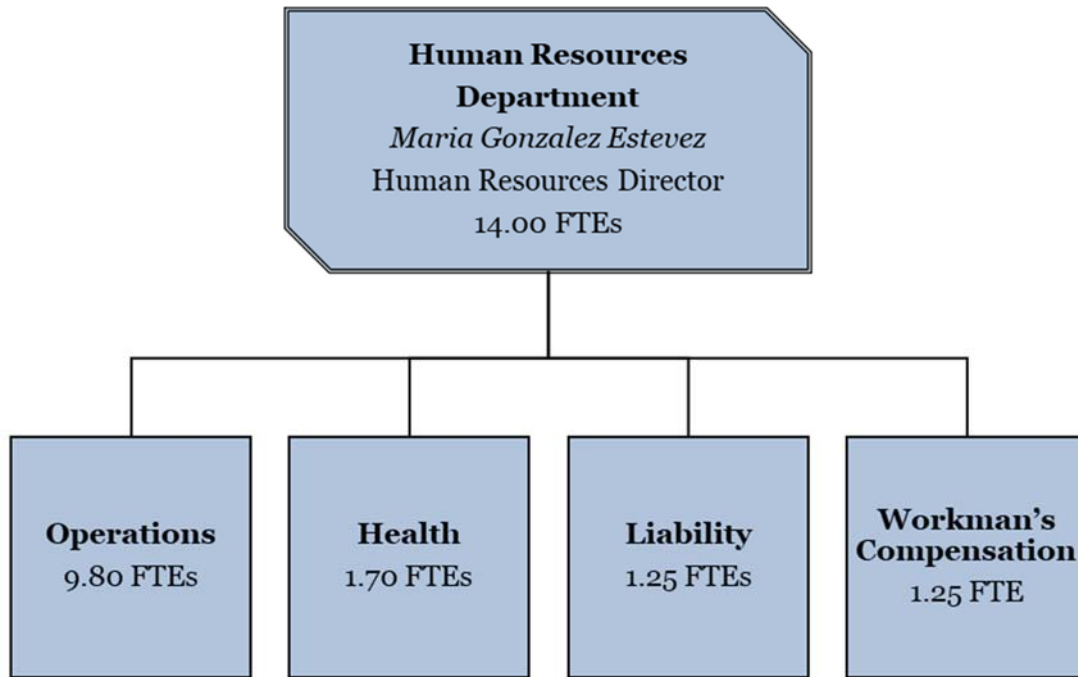
HOW THE DEPARTMENT IS ORGANIZED

The Human Resources Director reports to the City Manager and is the department head. The Human Resources Department manages the City's program for employment, recruitment and testing, compensation, benefits, health and safety, employee communications and wellness, policy development, training and development, employee recognition, collective bargaining, and labor relations and recruitment and selection.

HUMAN RESOURCES

CONTINUED

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
HUMAN RESOURCES DEPARTMENT REORGANIZATION	HUMAN RESOURCES	\$ 40,180
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 40,180

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
RISK ANALYST	HUMAN RESOURCES	\$ 106,304
PROFESSIONAL DEVELOPMENT	HUMAN RESOURCES	100,000
RECRUITMENT & SELECTION INCREASES	HUMAN RESOURCES	75,000
EMPLOYEE BENEFIT CLAIMS	HUMAN RESOURCES	34,995
EMPLOYEE RECOGNITION	HUMAN RESOURCES	13,500
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 329,799

UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
LIABILITY FUND CLAIMS	HUMAN RESOURCES	\$ 355,000
INSURANCE & BONDS INCREASES	HUMAN RESOURCES	233,542
WELLNESS INCREASE	HUMAN RESOURCES	5,000
TOTAL UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 593,542

HUMAN RESOURCES

CONTINUED

FTE SUMMARY

Human Resources	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administrative Specialist II	1.00	1.00	(1.00)	-
Benefits, Risk, & Safety Officer	-	-	1.00	1.00
Benefits, Risk, & Safety Specialist	-	-	1.00	1.00
Employee Relations Coordinator	-	-	1.00	1.00
HRIS Coordinator	-	-	1.00	1.00
HRIS Specialist	-	-	1.00	1.00
Human Resource Business Partner	2.00	3.00	-	3.00
Human Resources Analyst	2.00	4.00	(4.00)	-
Human Resources Business Specialist	-	-	1.00	1.00
Human Resources Deputy Director	-	1.00	-	1.00
Human Resources Director	1.00	1.00	-	1.00
Human Resources Technician	1.00	-	-	-
Recruiting Specialist	-	-	1.00	1.00
Safety & Risk Business Partner	1.00	1.00	(1.00)	-
Safety & Risk Manager	-	-	1.00	1.00
Senior Administrative Specialist	2.00	2.00	(2.00)	-
Total Rewards Business Partner	-	-	1.00	1.00
Wellness Coordinator	1.00	1.00	(1.00)	-
Total Human Resources	11.00	14.00	-	14.00

FTE SUMMARY BY FUND

Human Resources	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Health	2.10	1.70	-	1.70
Liability	0.85	1.25	-	1.25
Operations	7.10	9.80	-	9.80
Worker's Compensation	0.95	1.25	-	1.25
Total Human Resources	11.00	14.00	-	14.00

PERFORMANCE INDICATORS

- Employee Turnover
- Time to fill
- Benefits Participation
- Workers' Compensation Incident Rate

INFORMATION TECHNOLOGY



PURPOSE: To provide high quality, timely, professional computer support and service to all departments throughout the City.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	4,867,224	4,952,366	5,713,455	761,089	15.37%
Intergovernmental Revenue	102,745	-	-	-	-
Miscellaneous Revenue	63,073	21,500	21,500	-	-
Transfers In	1,411,016	1,270,806	-	(1,270,806)	-100%
Use of Fund Balance	1,317,972	2,109,846	839,490	(1,270,356)	-60.21%
Total Resources	\$ 7,762,030	\$ 8,354,518	\$ 6,574,445	(\$ 1,780,073)	-21.31%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	3,117,191	3,472,892	3,749,994	277,102	7.98%
Supplies & Services	2,496,181	4,061,749	2,645,743	(1,416,006)	-34.86%
Capital	2,092,858	319,877	178,708	(141,169)	-44.13%
Transfers Out	55,800	500,000	-	(500,000)	-100%
Total Expenditures by Category	\$ 7,762,030	\$ 8,354,518	\$ 6,574,445	(\$ 1,780,073)	-21.31%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
521 - Information Technology	5,404,545	6,265,821	6,391,737	125,916	2.01%
522 - Information Technology	2,357,485	2,088,697	182,708	(1,905,989)	-91.25%
Total Expenditures by Fund	\$ 7,762,030	\$ 8,354,518	\$ 6,574,445	(\$ 1,780,073)	-21.31%

INFORMATION TECHNOLOGY

CONTINUED

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Administration	633,130	1,000,569	932,892	(67,677)	-6.76%
Application Services	1,619,520	1,552,868	1,612,350	59,482	3.83%
Application Services Acquisition	32,190	-	-	-	-
Business Services	459,956	586,231	634,683	48,452	8.27%
Cyber Security	143,312	275,375	287,353	11,978	4.35%
Data Center	1,490,158	1,976,867	1,964,968	(11,899)	-0.60%
ERP	2,098,520	1,266,320	-	(1,266,320)	-100%
Investment Earnings	4,806	5,500	5,500	-	-
Network	223,441	318,377	178,708	(139,669)	-43.87%
Operating Transfers	55,800	500,000	-	(500,000)	-100%
PC Management	1,001,198	872,411	957,991	85,580	9.81%
Total Expenditures by Activity	\$ 7,762,030	\$ 8,354,518	\$ 6,574,445	(\$ 1,780,073)	-21.31%

GENERAL DESCRIPTION

Information Technology partners with City Departments to provide support for the ever expanding technology needs of the City.

The Information Technology department is made up of five distinct areas of activity. Each plays a critical function in supporting the employees and their ongoing support of the citizens of Greeley. The overall focus of IT is support the City in three specific areas to help achieve operational excellence: Run, Grow, and Transform.

ACTIVITY DESCRIPTIONS

Application Services is dedicated to empowering the City's business through enterprise software solutions. The division accomplishes this through focus efforts in three areas: 1) Providing business application support that includes management of product licensing, vendor management, user support and product testing. 2) Support of data management through database design and management, data analytics of current and future states, data driven decision-making visualization tools, and user support in data stewardship. 3) Innovative product development that include GIS applications, web application development and third party software integrations to enterprise systems. Each area provides an enterprise focus on the goal of empowering our user's success in serving Greeley's citizens.

The **Business Systems** team provides technology project management, business analysis, and is a conduit into IT for city departments and staff. This team helps you identify, negotiate, and implement technology projects for your division or department. It also works to lead or assist in cross-organization technology initiatives.

Cybersecurity Services provides the design, implementation, and oversight of the cybersecurity framework for the City of Greeley. This division provides Risk Assessments for each Department throughout the City, manages the risk profile and provides timely reports to the executive team on the state of security for the City. In addition, the Cybersecurity division oversees all cybersecurity training to all employees and staff member to enhance cyber-threat awareness. Cybersecurity Services is responsible for monitoring, identifying, and reporting all end-point vulnerabilities to Technical Services and performs follow-up assessments on the patch program to reduce threat vectors.

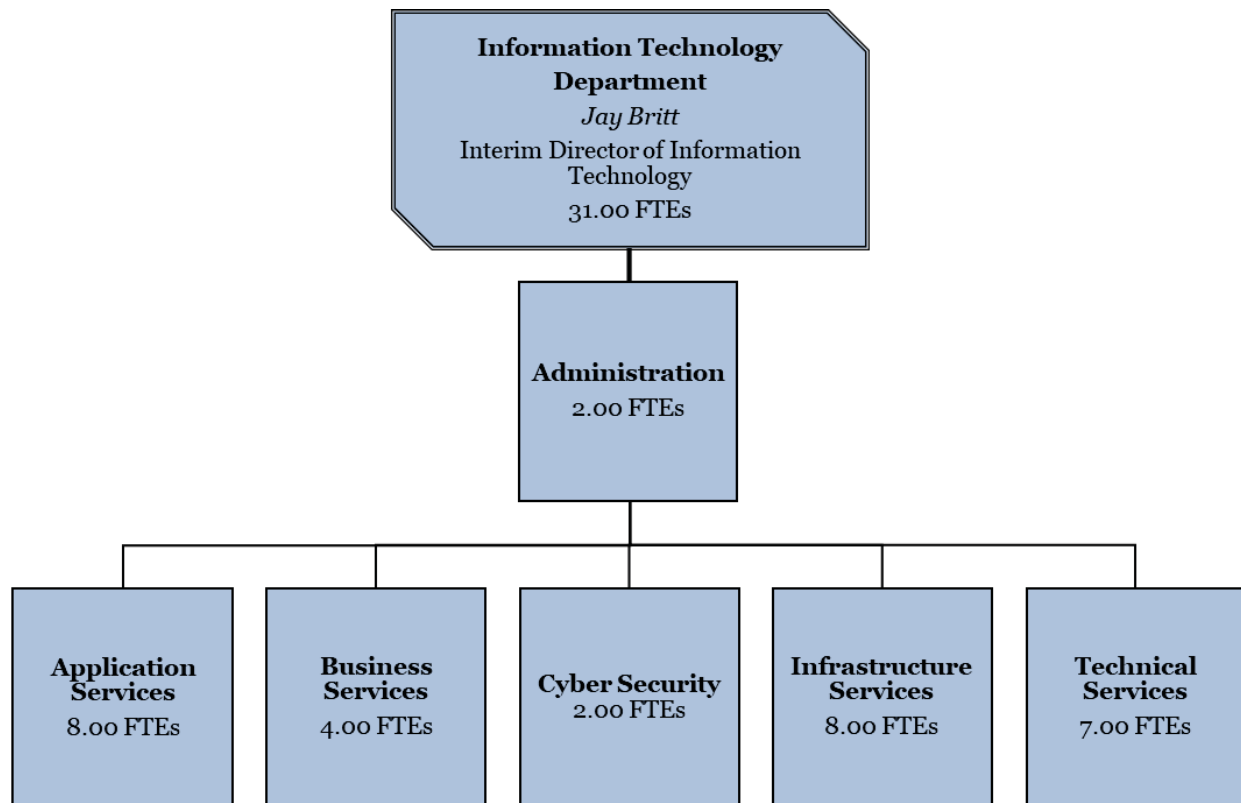
INFORMATION TECHNOLOGY

CONTINUED

Infrastructure Services encompasses three areas of IT, Networking, Servers, and Phone System. The division supports the organization's framework by supporting both physical and virtual hardware in two physically separated data centers. Networking includes overall support of all wired and wireless networks, which includes 120 network switches spanning across 53 City buildings within City Limits and 2 outside of City limits. Additional support includes over 60 internal wireless access points and 12 next-generation firewalls. Phone systems are made up of 10 phone switches and 1 primary phone system and a voice mail system for 1300 endpoints (which includes alarm lines, and handsets). This group also manages the installation of fiber and low voltage cabling as well as providing the primary support for all cellular communication orders, management of the telecom closets and multiple data centers. Server support includes over 120 virtual servers running 6 ESX hosts spread across both data centers and support for 2 SAN arrays (data storage) with a capacity of 158 terabytes of data. Finally, this division provides email management, Active Directory management, archiving/filtering, backup/restore services, and support and maintenance of the City's internet access.

Technical Services provides the ongoing, 24/7 support of the endpoint desktop and mobile computing devices for the entire City staff. Their additional duties include annual hardware refreshes of over 200 devices, assistance in purchase selection for new and replacement hardware, and the first line of support for system wide printing and scanning services. Recently added was the main support for Audio/Visual systems spread throughout the City and its buildings. This division also provides support and assistance on new software versions and operating systems upgrades as needed by either the vendors or the end users.

ORGANIZATIONAL CHART



INFORMATION TECHNOLOGY

CONTINUED

2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
COMPUTER (PC) TECHNICIAN	INFORMATION TECHNOLOGY	\$ 69,318
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 69,318

INFORMATION TECHNOLOGY

CONTINUED

FTE SUMMARY

Information Technology	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administration				
Information Technology Director	1.00	1.00	-	1.00
Information Technology Technician	1.00	1.00	-	1.00
Total Administration	2.00	2.00	-	2.00
Application Services				
Application Support Specialist	1.00	1.00	-	1.00
Database Administrator	2.00	1.00	-	1.00
GIS Analyst	2.00	1.00	-	1.00
GIS Database Administrator	1.00	1.00	-	1.00
GIS Specialist	1.00	1.00	-	1.00
Programmer Analyst	1.00	1.00	-	1.00
Senior Application Support Specialist	1.00	-	-	-
Software Applications Manager	-	1.00	-	1.00
Web Developer	1.00	1.00	-	1.00
Total Application Services	10.00	8.00	-	8.00
Business Services				
Business Systems Analyst I	1.00	1.00	-	1.00
Business Systems Analyst II	1.00	2.00	-	2.00
Business Systems Manager	-	1.00	-	1.00
Total Business Services	2.00	4.00	-	4.00
Cyber Security				
Network Security Administrator	-	0.50	-	0.50
Security Analyst	1.00	1.00	-	1.00
Senior Network Administrator	-	0.50	-	0.50
Total Cyber Security	1.00	2.00	-	2.00
Infrastructure				
Infrastructure Manager	-	1.00	-	1.00
Network Administrator I	1.00	1.00	-	1.00
Network Security Administrator	1.00	0.50	-	0.50
Senior Network Administrator	1.00	1.50	-	1.50
Senior Systems Administrator	1.00	1.00	-	1.00
Service Desk Tier III	2.00	-	-	-
Systems Administrator II	3.00	2.00	-	2.00
Telecom Administrator	1.00	1.00	-	1.00
Total Infrastructure	10.00	8.00	-	8.00
Technical Services				
Client Services Manager	1.00	1.00	-	1.00
PC Specialist	3.00	4.00	(1.00)	3.00
PC Technician	-	-	2.00	2.00
Senior Service Desk Technician	-	1.00	-	1.00
Service Desk Manager	-	-	-	-
Systems Manager	1.00	-	-	-
Total Technical Services	5.00	6.00	1.00	7.00
Total Information Technology	30.00	30.00	1.00	31.00

INFORMATION TECHNOLOGY

CONTINUED

PERFORMANCE INDICATORS

- Cybersecurity awareness
- Remote work enablement
- Improved Software Maintenance management



MUNICIPAL COURT

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	94,184	98,150	98,150	-	-
Fines & Forfeits	1,973,839	2,017,191	2,062,191	45,000	2.23%
Miscellaneous Revenue	(687)	50	50	-	-
Transfers In	16,000	16,000	16,000	-	-
Use of Fund Balance	(1,058,975)	(960,566)	(852,362)	108,204	-11.26%
Total Resources	\$ 1,024,361	\$ 1,170,825	\$ 1,324,029	\$ 153,204	13.085%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	782,055	816,754	960,043	143,289	17.54%
Supplies & Services	242,306	354,071	363,986	9,915	2.80%
Total Expenditures by Category	\$ 1,024,361	\$ 1,170,825	\$ 1,324,029	\$ 153,204	13.09%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	987,709	1,134,173	1,290,974	156,801	13.83%
121 - Public Safety .16%	30,000	-	-	-	-
131 - Drug / Alcohol Surcharge	-	30,000	25,000	(5,000)	-16.67%
402 - Downtown Parking	6,652	6,652	8,055	1,403	21.09%
Total Expenditures by Fund	\$ 1,024,361	\$ 1,170,825	\$ 1,324,029	\$ 153,204	13.09%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Drug/Alcohol Surcharge	30,000	30,000	25,000	(5,000)	-16.67%
Information Technology Charges	6,652	6,652	8,055	1,403	21.09%
Operations	987,709	1,134,173	1,290,974	156,801	13.83%
Total Expenditures by Activity	\$ 1,024,361	\$ 1,170,825	\$ 1,324,029	\$ 153,204	13.09%

GENERAL DESCRIPTION

The **Municipal Court** processes and resolves municipal ordinance violations justly, expeditiously and economically. The court provides due process and individual justice in each case and ensures that all actions taken in a case are consistent with established law. The Municipal Court Judge is appointed by City Council and the Presiding Judge employs associate judges to assist as needed.

MUNICIPAL COURT

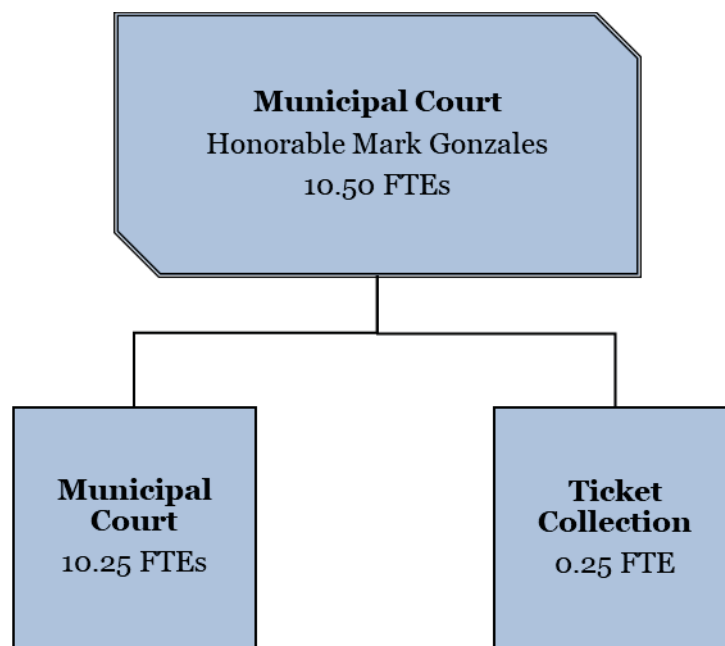
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HOW THE DEPARTMENT IS ORGANIZED

The department head is the Municipal Judge who reports to the City Council.

The Court Administrator is responsible for the court's daily operation, reports to the Municipal Judge and supervises Court personnel who provide support in the court room and clerk's office. This position also provides information and scheduling for defendants and attorneys regarding court dates, coordinates sentencing options (i.e. jail, electronic home monitoring, and useful public service and behavior modification classes), processes bonds and arrest warrants, manages jury summonses, and collects fines and fees assessed. The Municipal Court assists in collecting parking fines and holds final administrative hearings.

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
MUNICIPAL COURT MARSHAL	MUNICIPAL COURT	\$ 116,051
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 116,051

MUNICIPAL COURT

CONTINUED

FTE SUMMARY

Municipal Court	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Assistant Probation Officer	1.00	-	-	-
Clerical Assistant	0.75	0.75	-	0.75
Court Administrator	1.00	1.00	-	1.00
Court Clerk I	-	1.00	-	1.00
Court Clerk II	4.50	4.75	0.75	5.50
Court Marshall	-	-	1.00	1.00
Municipal Judge	1.00	1.00	-	1.00
Probation Officer	1.00	-	-	-
Parking				
Court Clerk II	1.00	1.00	(0.75)	0.25
Total Municipal Court	10.25	9.50	1.00	10.50

PERFORMANCE INDICATORS

- Court Closure Rate = 110%
- Comply with DORA – Municipal Court has consistently had Court Appointed Arraignment Counsel (CAAC) available to defendant's that qualify for counsel
- Data Integrity – Data is regularly monitored for accuracy with corrections made accordingly
- Paper-on-Demand system – evaluate efficiency consistent with changes made to accommodate COVID restrictions
- Performance measures with the x-ray technology- include the goal of zero breaches and establishing a base-line average for screening time of each Court visitor.
- Queueing System – To expedite the overall court experience





COMMUNITY DEVELOPMENT

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	173,236	185,250	185,250	-	-
Fines & Forfeits	102,990	110,000	110,000	-	-
Intergovernmental Revenue	7,000	-	-	-	-
Licenses & Permits	1,794,332	2,011,757	2,177,929	166,172	8.26%
Miscellaneous Revenue	5,266	2,075	2,075	-	-
Transfers In	605,020	592,960	657,048	64,088	10.81%
Use of Fund Balance	2,577,874	2,827,194	2,934,136	106,942	3.78%
Total Resources	\$ 5,265,718	\$ 5,729,236	\$ 6,066,438	\$ 337,202	5.89%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	4,285,817	4,712,005	5,145,447	433,442	9.20%
Supplies & Services	979,900	1,017,231	920,991	(96,240)	-9.46%
Total Expenditures by Category	\$ 5,265,718	\$ 5,729,236	\$ 6,066,438	\$ 337,202	5.89%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	5,265,718	5,729,236	6,066,438	337,202	5.89%
Total Expenditures by Fund	\$ 5,265,718	\$ 5,729,236	\$ 6,066,438	\$ 337,202	5.89%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Building Inspection	984,301	974,231	1,096,732	122,501	12.57%
Code Compliance	411,929	537,637	686,249	148,612	27.64%
Engineering Development Review	1,715,597	2,041,724	2,198,551	156,827	7.68%
Historic Preservation	127,238	135,899	126,944	(8,955)	-6.59%
Information Technology Charges	478,184	-	-	-	-
Planning	1,548,468	2,039,745	1,957,962	(81,783)	-4.01%
Total Expenditures by Activity	\$ 5,265,718	\$ 5,729,236	\$ 6,066,438	\$ 337,202	5.89%

COMMUNITY DEVELOPMENT

CONTINUED

GENERAL DESCRIPTION

The mission of the **Community Development** Department is to guide the physical development of the community to meet the present and future needs of its citizens in a manner that promotes high-quality civic design, convenience, health, safety, efficiency, and economy. The department consists of four divisions: Building Inspection, Engineering Development Review, Code Compliance, and Planning.

HOW THE DEPARTMENT IS ORGANIZED

The Community Development Director reports to the Assistant City Manager and City Manager and is the department head.

The **Building Inspection** division ensures building safety through the review of building plans, the uniform enforcement of the adopted building codes, and correction of any violations.

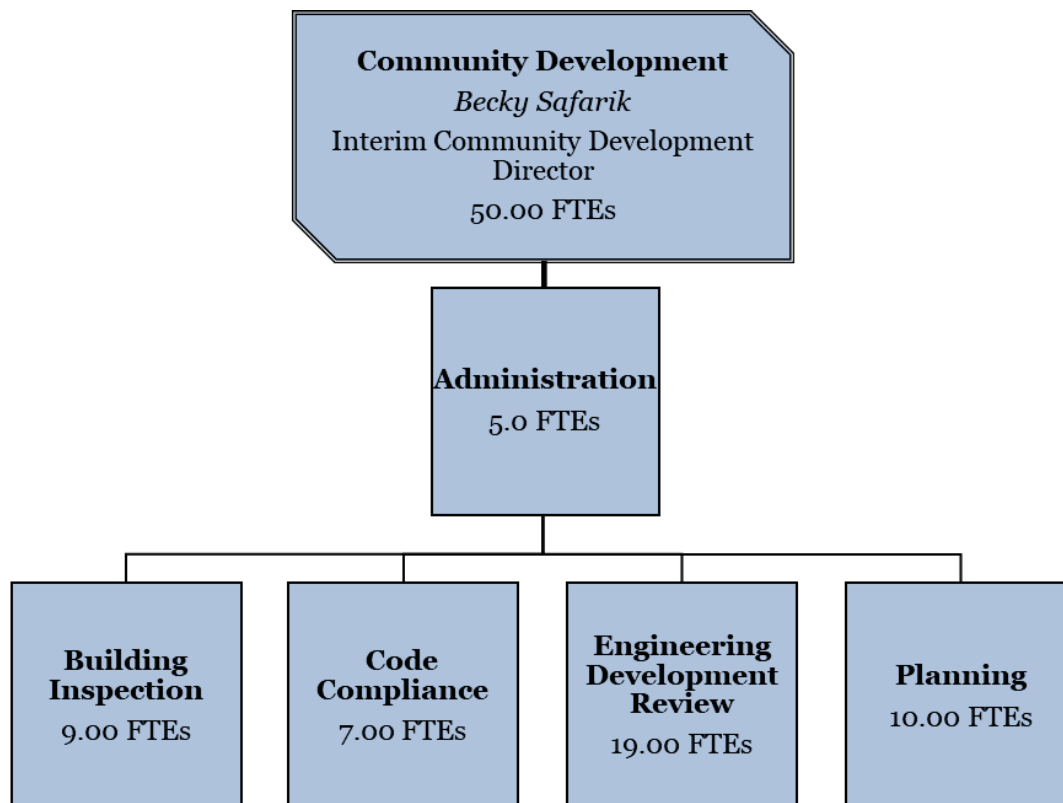
The **Engineering Development Review** division, along with the Current Planning program, provides oversight of new development projects within the community to ensure that the projects meet the City's development criteria, and, in doing so, providing quality infrastructure to the City once development is completed. Civil inspection is a program within the division that provides construction inspection services.

The **Code Compliance** division ensures code compliance concerning sanitation and zoning issues in the community through enforcement of various codes and regulations.

The **Planning** division provides guidance and structure for both present and future development of the City to ensure harmonious community design, as well as land use which is compatible with environmental and quality of life measures.

These operations are described in greater detail in the following division summaries.

ORGANIZATIONAL CHART



COMMUNITY DEVELOPMENT

CONTINUED

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
CREDIT CARD TRANSACTION FEE CHARGES	COMMUNITY DEVELOPMENT	\$ 150,000
CODE COMPLIANCE INSPECTOR	COMMUNITY DEVELOPMENT	116,304
DEVELOPMENT REVIEW CONTRACT STAFFING	COMMUNITY DEVELOPMENT	75,000
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 341,304

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
TWO-YEAR TEMPORARY CIVIL INSPECTOR FOR CITY-WIDE BROADBAND INSTALLATION	COMMUNITY DEVELOPMENT	\$ 128,172
TRAINING & CERTIFICATION	COMMUNITY DEVELOPMENT	10,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 138,172

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ENGINEER II	COMMUNITY DEVELOPMENT	\$ 125,489
LONG RANGER PLANNER III	COMMUNITY DEVELOPMENT	120,688
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 246,177

COMMUNITY DEVELOPMENT

CONTINUED

FTE SUMMARY

Community Development	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administration				
Administrative Specialist II	2.00	3.00	(1.00)	2.00
Business Analyst	1.00	1.00	-	1.00
Community Development Director	1.00	1.00	-	1.00
Office Manager	1.00	1.00	-	1.00
Senior Administrative Specialist	-	-	-	-
Total Building Inspection	5.00	6.00	(1.00)	5.00
Building Inspection				
Administrative Specialist II	1.00	-	-	-
Building Inspector I	2.00	2.00	-	2.00
Building Inspector II	3.00	3.00	-	3.00
Building Permit Technician	1.00	1.00	-	1.00
Chief Building Official	1.00	1.00	-	1.00
Plans Examiner	1.00	1.00	-	1.00
Senior Plans Examiner	1.00	1.00	-	1.00
Total Building Inspection	10.00	9.00	-	9.00
Engineering Development Review				
Administrative Specialist II	1.00	-	-	-
Chief Construction Inspector	1.00	1.00	-	1.00
Civil Engineer I	-	2.00	-	2.00
Civil Engineer II	5.00	2.00	-	2.00
Civil Engineer III	-	1.00	-	1.00
Construction Inspector	8.00	8.00	1.00	9.00
Development Review & Civil Inspector Manager	1.00	1.00	-	1.00
Engineering Technician	1.00	1.00	-	1.00
Senior Construction Inspector	2.00	2.00	-	2.00
Total Engineering Development Review	19.00	18.00	1.00	19.00
Code Compliance				
Code Compliance Inspector	5.00	5.00	1.00	6.00
Code Compliance Supervisor	1.00	1.00	-	1.00
Total Code Compliance	6.00	6.00	1.00	7.00
Planning				
Administrative Planning Technician	-	-	1.00	1.00
Chief Planner	-	1.00	-	1.00
Historic Preservation Specialist	1.00	-	-	-
Planner I	1.00	-	-	-
Planner II	1.00	3.00	-	3.00
Planner III	4.00	3.00	-	3.00
Planning Manager	1.00	1.00	-	1.00
Planning Technician	1.00	1.00	-	1.00
Total Planning	9.00	9.00	1.00	10.00
Total Community Development	49.00	48.00	2.00	50.00

COMMUNITY DEVELOPMENT

CONTINUED

PERFORMANCE INDICATORS

- Number of Development Reviews
- Percent of Dev Reviews completed w/in 2 weeks
- Number of Building Inspections
- Percent of Building Plan Review done in 20 business days
- Achieve timely Code Compliance
- Pro-active: observed vs. complaints

BUILDING INSPECTION

PURPOSE: To safeguard the health, property, and welfare of the citizens through the uniform enforcement of the City's building ordinances.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,162	250	250	-	-
Licenses & Permits	1,521,597	1,899,000	1,937,000	38,000	2.00%
Miscellaneous Revenue	75	75	75	-	-
Use of Fund Balance	(538,533)	(925,094)	(840,593)	84,501	-9.13%
Total Resources	\$ 984,301	\$ 974,231	\$ 1,096,732	\$ 122,501	12.57%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	833,161	895,130	942,446	47,316	5.29%
Supplies & Services	151,140	79,101	154,286	75,185	95.05%
Total Expenditures by Category	\$ 984,301	\$ 974,231	\$ 1,096,732	\$ 122,501	12.57%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Building Inspection	984,301	974,231	1,096,732	122,501	12.57%
Total Expenditures by Activity	\$ 984,301	\$ 974,231	\$ 1,096,732	\$ 122,501	12.57%

ACTIVITY DESCRIPTION

The **Building Inspection** staff contributes to safety and environmental development through the scrutiny of building plans, site inspections, and the issuance of building permits. The Division is also responsible for the administration and enforcement of all building codes and property maintenance codes, and assists in the administration and enforcement of the fire code with the Fire Marshall's office. The staff advises the Construction Trades Advisory and Appeals Board and other boards and committees as necessary. Additionally, the inspectors provide for the safety of the general public through periodic inspections of residential rental units, securing of buildings that are deemed unsafe, sales tax inspections, and implementation of emergency response procedures with fire and police.

CODE COMPLIANCE

PURPOSE: To protect and enhance the health, safety, and welfare of the community by assuring compliance with City sanitation, zoning, and air quality codes; reviewing developments for environmental impacts and working with developers to minimize or mitigate those impacts.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	-	25,000	25,000	-	-
Fines & Forfeits	102,990	110,000	110,000	-	-
Use of Fund Balance	308,940	402,637	551,249	148,612	36.91%
Total Resources	\$ 411,929	\$ 537,637	\$ 686,249	\$ 148,612	27.64%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	385,769	474,122	580,727	106,605	22.48%
Supplies & Services	26,160	63,515	105,522	42,007	66.14%
Total Expenditures by Category	\$ 411,929	\$ 537,637	\$ 686,249	\$ 148,612	27.64%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Code Compliance	411,929	537,637	686,249	148,612	27.64%
Total Expenditures by Activity	\$ 411,929	\$ 537,637	\$ 686,249	\$ 148,612	27.64%

ACTIVITY DESCRIPTION

Code Compliance provides enforcement of the City's sanitation and zoning codes, including inspection of properties, notification to responsible parties, enforcement of odor standards, presentation of cases to the Administrative Hearing Officer, and abatement actions to clean up non-compliant properties to meet minimum standards. Compliance inspectors work with the Administrative Hearing Program where the Administrative Hearing Officer hears code enforcement cases, determines if the cited party is liable for the code infractions, issues orders for compliance and assesses fines for those infractions. Code Compliance also reviews development applications for environmental impacts, researches and develops projects, administers public education for environmental programs, and manages interdepartmental and interagency cooperation regarding environmental issues.

ENGINEERING DEVELOPMENT REVIEW

PURPOSE: To enforce city design standards that provide quality development, which in turn support the health, safety and welfare of citizens and provide quality efficient infrastructure to the city through the enforcement of the City's Water & Sewer, Street, and Stormwater standards, as well as of the associated Master Plans.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	-	60,000	60,000	-	-
Licenses & Permits	270,795	111,257	239,429	128,172	115.20%
Miscellaneous Revenue	5,191	-	-	-	-
Transfers In	605,020	592,960	657,048	64,088	10.81%
Use of Fund Balance	834,591	1,277,507	1,242,074	(35,433)	-2.77%
Total Resources	\$ 1,715,597	\$ 2,041,724	\$ 2,198,551	\$ 156,827	7.68%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,608,814	1,859,524	2,058,311	198,787	10.69%
Supplies & Services	106,782	182,200	140,240	(41,960)	-23.03%
Total Expenditures by Category	\$ 1,715,597	\$ 2,041,724	\$ 2,198,551	\$ 156,827	7.68%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Engineering Development Review	1,715,597	2,041,724	2,198,551	156,827	7.68%
Total Expenditures by Activity	\$ 1,715,597	\$ 2,041,724	\$ 2,198,551	\$ 156,827	7.68%

ACTIVITY DESCRIPTIONS

The **Engineering Development Review** Division provides review of new development proposals and support to the Planning Division as it provides recommendations to the Planning Commission and City Council. The staff serves as a liaison between the City and other local, state, and federal entities.

The Engineering Development Review staff also: 1) reviews technical components of all subdivision, zoning, and annexation requests, and helps in the processing and coordinating of these new development projects; 2) reviews all residential plot plans submitted for building permits; 3) provides technical assistance and other information to citizens; and 4) reviews all building permits associated with new residential structures and all new commercial buildings, ensuring standards are met for water, sewer, stormwater and right-of-way access.

The **Civil Inspection** staff regulate work and monitor quality assurance of the work in the public right-of-way and as regards public infrastructure. This includes construction service inspections of Public Works capital improvement projects, Water and Sewer capital improvement projects, other city projects, private land development projects, and the preparation of engineering reports for these projects.

PLANNING

PURPOSE: To guide and accomplish coordinated and harmonious development of the community in accordance with present and future needs which best promote health, safety, and welfare.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	172,074	100,000	100,000	-	-
Intergovernmental Revenue	7,000	-	-	-	-
Licenses & Permits	1,940	1,500	1,500	-	-
Miscellaneous Revenue	-	2,000	2,000	-	-
Use of Fund Balance	1,972,876	2,072,144	1,981,406	(90,738)	-4.38%
Total Resources	\$ 2,153,891	\$ 2,175,644	\$ 2,084,906	(\$ 90,738)	-4.17%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,458,073	1,483,229	1,563,963	80,734	5.44%
Supplies & Services	695,818	692,415	520,943	(171,472)	-24.76%
Total Expenditures by Category	\$ 2,153,891	\$ 2,175,644	\$ 2,084,906	(\$ 90,738)	-4.17%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Historic Preservation	127,238	135,899	126,944	(8,955)	-6.59%
Information Technology Charges	478,184	-	-	-	-
Planning	1,548,468	2,039,745	1,957,962	(81,783)	-4.01%
Total Expenditures by Activity	\$ 2,153,891	\$ 2,175,644	\$ 2,084,906	(\$ 90,738)	-4.17%

ACTIVITY DESCRIPTIONS

The Planning Division provides guidance and recommendations to the Planning Commission to aid in performing its functions. The staff serves as liaison between the City and other local, state, and federal entities.

Current **Planning** reviews and processes land use applications related to zoning, subdivision, annexation, and site plan review, provides daily technical assistance regarding land use and other aspects of the built and social community to citizens, issues over-the-counter land use permits related to issues such as signs, home occupations, etc., and develops and maintains a support system for land use and development in matters such as mapping, the development code, and redevelopment.

Long-Range Planning conducts demographic and census research, undertakes special studies such as neighborhood, corridor, and sub-area plans, maintains land use records including subdivision and other data and identifies opportunities to implement goals and policies adopted through Imagine Greeley: Comprehensive Plan and its various supporting plans and studies. This program also provides technical assistance to other City departments and divisions for implementation of goals related to the Capital Improvement Programs in areas such as parks, roads, water & sewer, and community relations.

Historic Preservation assists with historic property research, nomination, designation, and potential funding of historic properties, as well as education of citizens in the social and economic values of preservation.



CULTURE, PARKS & RECREATION



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	3,359,844	4,717,893	5,947,875	1,229,982	26.07%
Intergovernmental Revenue	831,131	666,210	666,210	-	-
Licenses & Permits	1,610	2,100	2,100	-	-
Miscellaneous Revenue	759,781	1,088,704	1,257,712	169,008	15.52%
Transfers In	2,023,234	2,279,423	2,850,211	570,788	25.04%
Use of Fund Balance	11,130,946	12,808,023	13,945,944	1,137,921	8.88%
Total Resources	\$ 18,106,546	\$ 21,562,353	\$ 24,670,052	\$ 3,107,699	14.41%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	10,863,885	12,839,175	14,557,906	1,718,731	13.39%
Supplies & Services	6,477,748	7,814,237	8,771,248	957,011	12.25%
Capital	608,096	564,300	878,525	314,225	55.68%
Debt	17,594	115,068	96,000	(19,068)	-16.57%
Transfers Out	139,223	229,573	366,373	136,800	59.59%
Total Expenditures by Category	\$ 18,106,546	\$ 21,562,353	\$ 24,670,052	\$ 3,107,699	14.41%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	15,085,585	18,164,235	20,612,473	2,448,238	13.48%
121 - Public Safety .16%	84,571	-	-	-	-
125 - Poudre River Trail	-	217,386	149,774	(67,612)	-31.10%
126 - Youth And Senior Assistance	-	35,000	35,000	-	-
127 - Youth Enrichment	3,916	30,240	12,570	(17,670)	-58.43%
140 - Museum	39,062	41,312	2,118	(39,194)	-94.87%
141 - Senior Citizen	26	50	50	-	-
142 - Senior Center Clubs	6,282	21,675	21,675	-	-
143 - Community Memorials	1,140	-	-	-	-
400 - Cemetery	616,714	685,662	683,463	(2,199)	-0.32%
401 - Municipal Golf Courses	1,915,399	2,023,983	2,224,094	200,111	9.89%
512 - Fleet Replacement	353,635	335,100	200,000	(135,100)	-40.32%
513 - Equipment Replacement	-	-	662,525	662,525	-
603 - Petriken Memorial	2	10	10	-	-
605 - Memorials	215	7,700	66,300	58,600	761%
Total Expenditures by Fund	\$ 18,106,546	\$ 21,562,353	\$ 24,670,052	\$ 3,107,699	14.41%

CULTURE, PARKS & RECREATION

CONTINUED

Expenditures by Division	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Administration	1,741,096	2,149,396	2,081,460	(67,936)	-3.16%
Cemetery	616,715	685,672	783,473	97,801	14.26%
Culture & Public Art	1,509,541	1,556,329	2,285,780	729,451	46.87%
Golf	2,117,169	2,217,983	2,561,219	343,236	15.48%
Island Grove	1,924,337	2,218,576	2,431,229	212,653	9.59%
Museums	870,712	977,172	1,148,178	171,006	17.50%
Natural Areas & Trails	683,166	957,319	1,008,161	50,842	5.31%
Parks	4,541,795	5,079,271	5,592,200	512,929	10.10%
Recreation	4,102,014	5,720,635	6,778,352	1,057,717	18.49%
Total Expenditures by Division	\$ 18,106,546	\$ 21,562,353	\$ 24,670,052	\$ 3,107,699	14.41%

GENERAL DESCRIPTION

The mission of the Department of **Culture, Parks & Recreation** is to “enhance our community through exceptional service and stewardship”. The department consists of six divisions: Administration, Recreation, Culture/Museums, Natural Areas and Trails, Golf, and Parks/Forestry/Cemetery.

HOW THE DEPARTMENT IS ORGANIZED

The Director of Culture, Parks & Recreation reports to the Deputy City Manager of Community Building and is responsible for the executive management of the department. The Director and **Administration** Division provides oversight to the other five divisions in the way of administrative support towards consistency and compliance to all administrative processes and procedures. The functions that this division performs are: personnel management, payroll processing, revenue processing, budget development/execution/monitoring, accounts payable, contract processing, credit card/requisition/refund processing, coordinating office supply orders, and related board and commission duties. In addition, this division is the administrator of the RecTrac system, and volunteer background checks.

The **Cultural & Museum** division is focused on providing exceptional cultural and entertainment opportunities for our community and region. The Culture program is primarily found within the walls of the Union Colony Civic Center (UCCC), yet works as part of the Culture, Parks, and Recreation team to develop, promote, and present events and services in all Culture, Parks, and Recreation venues. In addition, the **Public Arts** and Sister City programs for the City of Greeley are managed within this division. The **Museums** program consists of four major physical venues, Greeley History Museum, Centennial Village, White-Plumb Farm, and the historic Meeker House. This portion of the division is tasked with developing educational programs for all ages and abilities within these venues, as well as professional care of historical artifacts and collections, proper display of items on exhibit, and the annual maintenance of the venues and their collections.

The **Municipal Golf** division provides the ongoing operation, maintenance and programming for both Highland Hills and Boomerang Links Golf Courses. Management includes the oversight of contract concessionaires for pro shop operations and restaurants at both locations.

The **Recreation** division provides a diverse offering of community programs and facilities including youth and adult sports, classes, activities, adaptive/inclusive recreation, and events. In addition, senior activities, classes and events, outdoor adventure programs, aquatics programs and facilities, and all fitness areas and activities are within this division. Facilities managed include the Greeley Recreation Center, Active Adult Center, Ice Haus, Family Funplex, Rodarte Community Center, Centennial Pool, Discovery Bay Pool, and Sunrise and Island Grove Splash Parks.

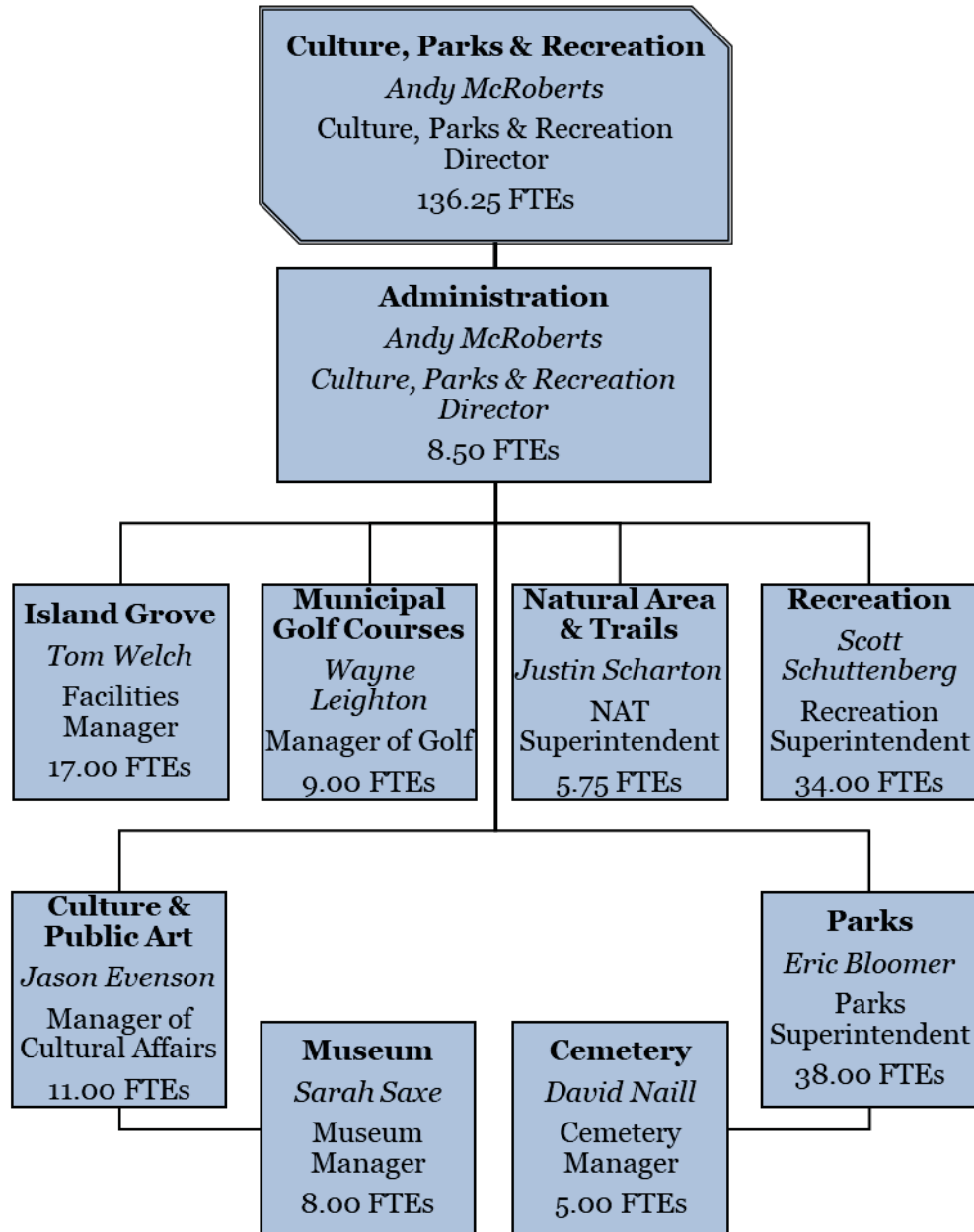
The **Natural Areas and Trails** division provides maintenance and management of the City’s natural areas and open spaces, trail maintenance and construction management, oversight of the Poudre River Trail, and land acquisition strategies for new spaces in addition to caring for 1000+ acres of current natural areas/open space.

CULTURE, PARKS & RECREATION

CONTINUED

The **Parks** division provides park and playground maintenance, sports field maintenance, facility management, park planning, park construction, and special projects for 42 parks sites, 30 playgrounds, and 5 athletic field sites. The Parks Division also includes the operations and management of the **Linn Grove Cemetery (Enterprise Fund)**, **Community Forestry** and **Island Grove** Regional Park and Facilities.

ORGANIZATIONAL CHART



CULTURE, PARKS & RECREATION

CONTINUED

2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
UCCC OPERATIONS	CULTURE, PARKS, & RECREATION	\$ 623,548
ACTIVE ADULT CENTER OPERATIONS	CULTURE, PARKS, & RECREATION	166,813
FAMILY FUNPLEX OPERATIONS	CULTURE, PARKS, & RECREATION	163,864
RODARTE COMMUNITY CENTER OPERATIONS	CULTURE, PARKS, & RECREATION	154,756
RECREATION ADMINISTRATION	CULTURE, PARKS, & RECREATION	150,126
RECREATION SPORTS PROGRAMS	CULTURE, PARKS, & RECREATION	128,013
ICE HAUS OPERATIONS	CULTURE, PARKS, & RECREATION	103,081
RECREATION CENTER OPERATIONS	CULTURE, PARKS, & RECREATION	102,942
HISTORIC SITES OPERATIONS	CULTURE, PARKS, & RECREATION	97,248
GREELEY HISTORY MUSEUM	CULTURE, PARKS, & RECREATION	75,171
OUTDOOR POOLS (AQUATICS) OPERATIONS	CULTURE, PARKS, & RECREATION	52,005
EMERALD ASH BORE MANAGEMENT	CULTURE, PARKS, & RECREATION	50,000
CARDIOPULMONARY RESUSCITATION (CPR) CERTIFICATION/TRAINING & SPONSORSHIP ASSISTANT	CULTURE, PARKS, & RECREATION	23,808
PUBLIC ART TOINTON GALLERY	CULTURE, PARKS, & RECREATION	23,684
POUDRE TRAIL CORE OPERATIONAL PRIORITIES	CULTURE, PARKS, & RECREATION	14,000
FARMERS MARKET	CULTURE, PARKS, & RECREATION	9,300
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 1,938,359

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
STRATEGIC MASTER PLAN & COMMUNITY NEEDS ASSESSMENT	CULTURE, PARKS, & RECREATION	\$ 250,000
BOOMERANG STORMWATER CONSTRUCTION	CULTURE, PARKS, & RECREATION	214,500
WETLAND MITIGATION & RESTORATION FEASIBILITY STUDY	CULTURE, PARKS, & RECREATION	150,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 614,500

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
PARK MAINTENANCE	CULTURE, PARKS, & RECREATION	\$ 368,100
MEDIANS & ROW MAINTENANCE	CULTURE, PARKS, & RECREATION	232,609
PARK MAINTENANCE TECHNICIAN II	CULTURE, PARKS, & RECREATION	221,034
NATURAL AREAS & TRAILS CHEMICAL APPLICATION TECHNICIAN II	CULTURE, PARKS, & RECREATION	201,984
NATURAL AREAS & TRAILS ENVIRONMENTAL PLANNER	CULTURE, PARKS, & RECREATION	149,059
NATURAL AREAS & TRAILS CORE OPERATIONAL PRIORITIES	CULTURE, PARKS, & RECREATION	97,500
FESTIVALS ADMINISTRATION	CULTURE, PARKS, & RECREATION	34,194
PUBLIC ART COMMUNITY OUTREACH	CULTURE, PARKS, & RECREATION	12,592
FESTIVALS SISTER CITY	CULTURE, PARKS, & RECREATION	5,000
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 1,322,072

UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
NATURAL AREAS & TRAILS ROLLING STOCK PRIORITIES	CULTURE, PARKS, & RECREATION	\$ 60,000
TOTAL UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 60,000

CULTURE, PARKS & RECREATION

CONTINUED

FTE SUMMARY

Culture, Parks, and Recreation	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administration				
Administrative Specialist I	0.75	0.75	-	0.75
Administrative Specialist II	2.00	2.00	-	2.00
Budget Analyst	-	1.00	-	1.00
Culture, Parks & Recreation Director	1.00	1.00	-	1.00
Facility Equipment Technician	1.00	1.00	-	1.00
Facility Service Supervisor II	1.00	-	-	-
Marketing Sponsorship Coordinator	-	0.75	-	0.75
Office Manager	1.00	1.00	-	1.00
Recreation Supervisor	-	1.00	-	1.00
Total Administration	6.75	8.50	-	8.50
Culture & Public Art				
Administrative Specialist II	0.75	-	-	-
Assistant Technician Services Coordinator	1.00	1.00	-	1.00
Assistant Ticket Office Coordinator	1.00	1.00	-	1.00
Cultural Affairs Manager	1.00	1.00	-	1.00
Facility Service Worker	2.00	2.00	-	2.00
Financial Services Coordinator	1.00	1.00	-	1.00
Public Art Coordinator	1.00	1.00	-	1.00
Senior Stage Manager	1.00	1.00	-	1.00
Special Events Coordinator	1.00	1.00	-	1.00
Technical Services Coordinator	1.00	1.00	-	1.00
Union Colony Civic Center Programs Coordinator	1.00	1.00	-	1.00
Total Culture & Public Art	11.75	11.00	-	11.00
Island Grove				
Assistant Events Coordinator	1.00	1.00	-	1.00
Crew Leader: Island Grove	2.00	2.00	-	2.00
Events Coordinator	1.00	1.00	-	1.00
Facility Manager: Island Grove	1.00	1.00	-	1.00
Facility Service Supervisor II	2.00	2.00	-	2.00
Facility Technician	6.00	6.00	-	6.00
Island Grove Tech II	1.00	-	-	-
Parks Maintenance Technician II	3.00	4.00	-	4.00
Total Island Grove	17.00	17.00	-	17.00
Municipal Golf Courses				
Boomerang Golf Course Superintendent	1.00	1.00	-	1.00
Golf Crew Supervisor	2.00	2.00	-	2.00
Highland Hills Golf Course Superintendent	1.00	1.00	-	1.00
Irrigation Technician	2.00	2.00	-	2.00
Manager of Golf	1.00	1.00	-	1.00
Mechanic: Golf	2.00	2.00	-	2.00
Total Municipal Golf Courses	9.00	9.00	-	9.00

CULTURE, PARKS & RECREATION

CONTINUED

FTE SUMMARY (CONTINUED)

Culture, Parks, and Recreation	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Museums				
Administrative Specialist II	1.00	-	-	-
Assistant Museum Curator	2.75	1.00	-	1.00
Collections Registrar	1.00	1.00	-	1.00
Facilities Management Technician II	1.00	1.00	-	1.00
Facility Service Worker	1.00	1.00	-	1.00
Museum Curator	4.00	3.00	-	3.00
Museum Manager	1.00	1.00	-	1.00
Total Museum	11.75	8.00	-	8.00
Natural Areas & Trails				
Environmental Planner	-	1.00	-	1.00
Natural Areas & Trails Superintendent	1.00	1.00	-	1.00
Parks Crew Supervisor	-	1.00	-	1.00
Parks Maintenance Technician I	1.00	1.00	-	1.00
Parks Maintenance Technician II	1.00	1.00	-	1.00
Natural Lands Coordinator	1.00	-	-	-
Trail Manager	1.00	1.00	(0.25)	0.75
Trails Open Land Crew Leader	1.00	-	-	-
Total Natural Areas & Trails	6.00	6.00	(0.25)	5.75
Cemetery				
Administrative Specialist II	1.00	1.00	-	1.00
Cemetery Manager	1.00	1.00	-	1.00
Cemetery Technician	2.00	2.00	-	2.00
Mechanic: Parks	1.00	1.00	-	1.00
Total Cemetery	5.00	5.00	-	5.00
Parks				
Administrative Specialist II	1.00	1.00	-	1.00
Code Compliance Inspector	1.00	1.00	-	1.00
Forestry Manager	1.00	1.00	-	1.00
Forestry Technician I	2.00	2.00	(1.00)	1.00
Forestry Technician II	1.00	1.00	2.00	3.00
Healthy Neighborhood Coordinator	1.00	1.00	(1.00)	-
Irrigation Coordinator	1.00	1.00	-	1.00
Mechanic: Parks	1.00	1.00	-	1.00
Parks Crew Supervisor	2.00	3.00	-	3.00
Parks Maintenance Technician I	6.00	4.00	-	4.00
Parks Maintenance Technician II	16.00	17.00	-	17.00
Parks Manager	2.00	2.00	-	2.00
Parks Planner	1.00	1.00	-	1.00
Parks Superintendent	1.00	1.00	-	1.00
Senior Administrative Specialist	1.00	1.00	-	1.00
Total Parks	38.00	38.00	-	38.00

CULTURE, PARKS & RECREATION

CONTINUED

FTE SUMMARY (CONTINUED)

Culture, Parks, and Recreation	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Recreation				
Customer Service Representative	5.00	4.00	1.00	5.00
Facility Service Crew Leader	2.00	2.00	-	2.00
Facility Service Worker	4.00	4.00	-	4.00
Recreation Coordinator I	2.00	1.00	(1.00)	-
Recreation Coordinator II	10.00	12.00	2.00	14.00
Recreation Manager	3.00	2.00	-	2.00
Recreation Superintendent	1.00	1.00	-	1.00
Recreation Supervisor	7.00	6.00	-	6.00
Recreation Technician	1.00	-	-	-
Total Recreation	35.00	32.00	2.00	34.00
Total Culture, Parks, & Recreation	140.25	134.50	1.75	136.25

PERFORMANCE INDICATORS

- NEW in 2021 – improved Cost Recovery Model
- Youth Sports and Activities participation
- Adult Sports Programs participation
- Parks Operations – variety (turf, pond)
- Natural Areas & Trails – trail counters, weed infestation
- Facility attendance - UCCC, Museums, Rec Center, Active Adult Center, Ice Haus, Recreation Center and FunPlex Operations

ADMINISTRATION

PURPOSE: To provide the highest quality and most efficient support to the Culture, Parks & Recreation staff tasked with providing a comprehensive, year-round, recreational and cultural program for the community. To provide safe, clean and attractive facilities for community use as well as assist in the minor maintenance and set up of events and services in all Culture, Park, and Recreation facilities.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	-	7,500	12,900	5,400	72.00%
Miscellaneous Revenue	46,481	32,800	50,700	17,900	54.57%
Use of Fund Balance	1,694,615	2,109,096	2,017,860	(91,236)	-4.33%
Total Resources	\$ 1,741,096	\$ 2,149,396	\$ 2,081,460	(\$ 67,936)	-3.16%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	559,939	755,940	821,369	65,429	8.66%
Supplies & Services	1,181,157	1,391,456	1,258,591	(132,865)	-9.55%
Capital	-	2,000	1,500	(500)	-25.00%
Total Expenditures by Category	\$ 1,741,096	\$ 2,149,396	\$ 2,081,460	(\$ 67,936)	-3.16%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	1,741,070	2,149,346	2,081,410	(67,936)	-3.16%
141 - Senior Citizen	26	50	50	-	-
Total Expenditures by Fund	\$ 1,741,096	\$ 2,149,396	\$ 2,081,460	(\$ 67,936)	-3.16%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Administration	1,719,795	2,116,122	2,046,309	(69,813)	-3.30%
Farmers Market	21,276	33,224	35,101	1,877	5.65%
Investment Earnings	26	50	50	-	-
Total Expenditures by Activity	\$ 1,741,096	\$ 2,149,396	\$ 2,081,460	(\$ 67,936)	-3.16%

ACTIVITY DESCRIPTIONS

Administration division provides oversight to the other five divisions in the way of administrative support to provide consistency and compliance regarding all administrative processes and procedures. The functions this division performs are: Cost Recovery Modeling, personnel records support, payroll processing, revenue processing, budget development/execution/monitoring, accounts payable, contract processing, credit card/requisition/refund processing, coordinating office supply orders, and related board and commission duties. In addition, this division is the administrator of the RecTrac system, volunteer background checks, Youth Assistance Program, and coordinator to Information Technology.

The cost associated with the **Senior Citizen fund** are managed by the Active Adult Center and account for contributions from individuals, corporations, and organizations for capital improvements to the Active Adult Center.

The **Farmers' Market** provides administrative and site management for the annual summer and winter Greeley Farmer's Markets, including publicity, vendors, sales tax, and space rental fee collection.

CEMETERY

PURPOSE: To provide for our community's need for pre-planning and final disposition of its deceased. This includes sales and services and maintaining the grounds, facilities, and equipment at Linn Grove Cemetery.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	260,943	345,270	345,270	-	-
Intergovernmental Revenue	10,946	-	-	-	-
Miscellaneous Revenue	103,336	60,925	60,925	-	-
Transfers In	22,394	246,536	240,000	(6,536)	-2.65%
Use of Fund Balance	219,097	32,941	137,278	104,337	317%
Total Resources	\$ 616,715	\$ 685,672	\$ 783,473	\$ 97,801	14.26%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	428,696	451,604	477,182	25,578	5.66%
Supplies & Services	164,638	217,068	206,291	(10,777)	-4.96%
Capital	23,381	17,000	-	(17,000)	-100%
Transfers Out	-	-	100,000	100,000	-
Total Expenditures by Category	\$ 616,715	\$ 685,672	\$ 783,473	\$ 97,801	14.26%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
400 - Cemetery	616,714	685,662	683,463	(2,199)	-0.32%
512 - Fleet Replacement	-	-	100,000	100,000	-
603 - Petriken Memorial	2	10	10	-	-
Total Expenditures by Fund	\$ 616,715	\$ 685,672	\$ 783,473	\$ 97,801	14.26%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Cemetery Equipment	-	-	100,000	100,000	-
Internments	231,873	229,280	235,628	6,348	2.77%
Investment Earnings	817	3,010	3,010	-	-
Maintenance - Cemetery	384,026	453,382	444,835	(8,547)	-1.89%
Total Expenditures by Activity	\$ 616,715	\$ 685,672	\$ 783,473	\$ 97,801	14.26%

ACTIVITY DESCRIPTIONS

Internment services provide for the final disposition of our community's deceased and include in-ground internments, cremation internments, genealogy research, and foundation installations for memorial placements.

Cemetery **Maintenance** provides for all aspects of maintenance activities for 55 operative acres at the Linn Grove Cemetery including: grounds management, section renovations, turf management and water feature & roadway maintenance.

The Pre-Need program provides the opportunity for our community to pre-arrange future final disposition needs through staff pre-arrangement counselors and includes grave sites, opening/closing costs, and a variety of other disposition options.

CULTURE & PUBLIC ART

PURPOSE: To research, assess, contract for, promote and present exceptional cultural and entertainment opportunities for our community and region. This division is primarily focused on the UCCC, yet will offer programs and services in numerous City venues, from parks to the Ice Haus. To develop educational programs for all ages and abilities within the historical venues, and professionally care for the historical artifacts entrusted to our care.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	260,448	491,726	810,372	318,646	64.80%
Miscellaneous Revenue	20,285	120,179	132,875	12,696	10.56%
Use of Fund Balance	1,228,809	944,424	1,342,533	398,109	42.15%
Total Resources	\$ 1,509,541	\$ 1,556,329	\$ 2,285,780	\$ 729,451	46.87%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	757,545	850,421	1,052,707	202,286	23.79%
Supplies & Services	507,553	605,335	1,132,500	527,165	87.09%
Capital	181,638	-	-	-	-
Transfers Out	62,806	100,573	100,573	-	-
Total Expenditures by Category	\$ 1,509,541	\$ 1,556,329	\$ 2,285,780	\$ 729,451	46.87%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	1,509,541	1,556,329	2,285,780	729,451	46.87%
Total Expenditures by Fund	\$ 1,509,541	\$ 1,556,329	\$ 2,285,780	\$ 729,451	46.87%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Arts Picnic	692	41,343	41,347	4	0.01%
Culture Administration	239,619	247,022	242,895	(4,127)	-1.67%
Festival Administration	111,134	87,062	92,564	5,502	6.32%
Neighborhood Nights	-	7,130	7,130	-	-
Operations - UCCC	792,296	729,078	981,662	252,584	34.64%
Programming - UCCC	365,669	444,694	920,182	475,488	107%
Sister City Program	132	-	-	-	-
Total Expenditures by Activity	\$ 1,509,541	\$ 1,556,329	\$ 2,285,780	\$ 729,451	46.87%

CULTURE & PUBLIC ART

CONTINUED

ACTIVITY DESCRIPTIONS

Culture & Public Art works in unison with other Culture, Parks and Recreation division leaders for the betterment of delivery of products and services to the community in the most efficient and effective manner. Tasks that fall within this division are determining potential shows and productions at **UCCC** that will entice maximum ticket sales, seeking out and cultivating new sources of funding, preparing and applying for grants, working in collaboration with other institutions and agencies to enhance the program, actively recruiting and training volunteers, networking with Downtown Development Authority (DDA), Chamber of Commerce and other civic groups to promote the program. This division also oversees the **Sister City Program** with Moriya, Japan.

In addition, this division provides for the coordination and oversight of the **Arts Picnic**, **Neighborhood Nights**, and the **Festival of Trees** as well as support to other community special events, including management of the Greeley Farmer's Market.

ISLAND GROVE

PURPOSE: To provide maintenance and development of the county buildings, the park, and the arena. Responsibilities include setups for all major events including the Greeley Independence Stampede.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	7,775	82,500	82,500	-	-
Intergovernmental Revenue	693,715	574,210	574,210	-	-
Miscellaneous Revenue	189,795	426,400	431,400	5,000	1.17%
Use of Fund Balance	1,033,053	1,135,466	1,343,119	207,653	18.29%
Total Resources	\$ 1,924,337	\$ 2,218,576	\$ 2,431,229	\$ 212,653	9.59%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,239,112	1,371,199	1,502,666	131,467	9.59%
Supplies & Services	685,225	847,377	928,563	81,186	9.58%
Total Expenditures by Category	\$ 1,924,337	\$ 2,218,576	\$ 2,431,229	\$ 212,653	9.59%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	1,924,337	2,218,576	2,431,229	212,653	9.59%
Total Expenditures by Fund	\$ 1,924,337	\$ 2,218,576	\$ 2,431,229	\$ 212,653	9.59%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Island Grove Arena	518,816	538,552	590,923	52,371	9.72%
Island Grove County Buildings	572,703	667,575	719,640	52,065	7.80%
Island Grove Event Center	408,462	485,360	526,146	40,786	8.40%
Island Grove Park	424,356	527,089	594,520	67,431	12.79%
Total Expenditures by Activity	\$ 1,924,337	\$ 2,218,576	\$ 2,431,229	\$ 212,653	9.59%

ACTIVITY DESCRIPTION

Island Grove includes building maintenance, scheduling and rentals of arena, city/county building spaces, horse stalls, regional park picnic areas, along with regional park maintenance and management.

MUNICIPAL GOLF COURSES

PURPOSE: To provide well maintained and efficiently operated golf courses for the enjoyment of residents and tourists to Greeley.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,043,893	1,913,533	2,093,612	180,079	9.41%
Intergovernmental Revenue	17,279	-	-	-	-
Miscellaneous Revenue	6,783	1,600	1,600	-	-
Transfers In	-	-	314,500	314,500	-
Use of Fund Balance	49,213	302,850	151,507	(151,343)	-49.97%
Total Resources	\$ 2,117,169	\$ 2,217,983	\$ 2,561,219	\$ 343,236	15.48%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	916,413	1,005,387	1,064,542	59,155	5.88%
Supplies & Services	992,919	900,528	849,052	(51,476)	-5.72%
Capital	190,243	194,000	451,625	257,625	133%
Debt	17,594	115,068	96,000	(19,068)	-16.57%
Transfers Out	-	3,000	100,000	97,000	3,233%
Total Expenditures by Category	\$ 2,117,169	\$ 2,217,983	\$ 2,561,219	\$ 343,236	15.48%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
401 - Municipal Golf Courses	1,915,399	2,023,983	2,224,094	200,111	9.89%
512 - Fleet Replacement	201,770	194,000	100,000	(94,000)	-48.45%
513 - Equipment Replacement	-	-	237,125	237,125	-
Total Expenditures by Fund	\$ 2,117,169	\$ 2,217,983	\$ 2,561,219	\$ 343,236	15.48%

MUNICIPAL GOLF COURSES

CONTINUED

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
2016 Bancorp Loan	17,594	15,068	-	(15,068)	-100%
Boomerang Clubhouse	55,181	82,110	83,721	1,611	1.96%
Boomerang General Maintenance	638,493	767,880	953,873	185,993	24.22%
Boomerang Pro Shop	59,503	58,800	58,800	-	-
Cemetery Endowment Loan	-	100,000	96,000	(4,000)	-4.00%
Equipment Replacement Golf	-	-	237,125	237,125	-
Golf Administration	438,623	208,640	199,911	(8,729)	-4.18%
Golf Equipment	201,770	194,000	100,000	(94,000)	-48.45%
Highland Hills Clubhouse	50,294	65,664	67,384	1,720	2.62%
Highland Hills General Maintenance	583,649	654,581	693,165	38,584	5.89%
Highland Hills Pro Shop	71,007	69,800	69,800	-	-
Investment Earnings	1,055	1,440	1,440	-	-
Total Expenditures by Activity	\$ 2,117,169	\$ 2,217,983	\$ 2,561,219	\$ 343,236	15.48%

ACTIVITY DESCRIPTIONS

Highland Hills and **Boomerang Links** Golf Courses offer the golf enthusiast two choices of well-maintained and championship courses to enjoy their favorite sport. Both locations have clubhouses, restaurants, and pro shops which offer merchandise as well as golf instruction from professional staff. Golf cart and equipment rentals are also available.

The Maintenance staff provides services essential to the aesthetics and operation of the facilities and grounds, including mowing, fertilizing, maintaining the irrigation system, controlling pests, and preparing for tournaments. Other duties include the implementation of physical improvements and the execution of projects related to regulatory compliance.

Golf Administration oversees the overall operations of both Highland Hills and Boomerang Links Golf Courses and plans for the capital equipment needed for operations.

MUSEUM

PURPOSE: To develop educational programs for all ages and abilities within the historical venues, and professional care for the historical artifacts entrusted to our care.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	10,473	66,464	72,892	6,428	9.67%
Miscellaneous Revenue	32,487	31,150	37,350	6,200	19.90%
Transfers In	223,727	208,772	234,572	25,800	12.36%
Use of Fund Balance	604,026	670,786	803,364	132,578	19.76%
Total Resources	\$ 870,712	\$ 977,172	\$ 1,148,178	\$ 171,006	17.50%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	677,783	735,837	842,198	106,361	14.45%
Supplies & Services	163,301	210,335	273,180	62,845	29.88%
Capital	2,210	24,000	-	(24,000)	-100%
Transfers Out	27,417	7,000	32,800	25,800	369%
Total Expenditures by Category	\$ 870,712	\$ 977,172	\$ 1,148,178	\$ 171,006	17.50%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	831,435	928,160	1,079,760	151,600	16.33%
140 - Museum	39,062	41,312	2,118	(39,194)	-94.87%
605 - Memorials	215	7,700	66,300	58,600	761%
Total Expenditures by Fund	\$ 870,712	\$ 977,172	\$ 1,148,178	\$ 171,006	17.50%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Germans From Russia	200	200	200	-	-
Greeley History Museum	548,404	486,396	574,083	87,687	18.03%
Historic Sites	283,031	441,764	505,677	63,913	14.47%
Investment Earnings	172	750	750	-	-
Museum Operations	-	-	525	525	-
Plumb Farm	-	7,000	65,600	58,600	837%
Support Centennial Village	4,895	24,000	-	(24,000)	-100%
Support Museum Facility	34,010	17,062	1,343	(15,719)	-92.13%
Total Expenditures by Activity	\$ 870,712	\$ 977,172	\$ 1,148,178	\$ 171,006	17.50%

ACTIVITY DESCRIPTIONS

Museum tasks include seeking out and cultivating new sources of funding, preparing grants, working with and collaborating with other institutions and agencies to enhance the program, overseeing collection acquisition and care, overseeing the community assets entrusted to the [Greeley History Museum](#), [Centennial Village](#), [Plumb Farm](#), and the historic Meeker House and developing, promoting and presenting educational activities and special events within these venues.

NATURAL AREAS & TRAILS

PURPOSE: The Natural Areas & Trails division provides maintenance and management of the City's natural areas and open spaces, trail maintenance and construction management, oversight of the Poudre River Trail, and land acquisition strategies for new spaces in addition to caring for 1000+ acres of current natural areas/open space.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	6,000	-	-	-	-
Intergovernmental Revenue	69,376	47,000	47,000	-	-
Transfers In	29,000	74,000	29,000	(45,000)	-60.81%
Use of Fund Balance	578,790	836,319	932,161	95,842	11.46%
Total Resources	\$ 683,166	\$ 957,319	\$ 1,008,161	\$ 50,842	5.31%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	483,940	588,696	598,050	9,354	1.59%
Supplies & Services	162,293	269,623	381,111	111,488	41.35%
Capital	7,934	-	-	-	-
Transfers Out	29,000	99,000	29,000	(70,000)	-70.71%
Total Expenditures by Category	\$ 683,166	\$ 957,319	\$ 1,008,161	\$ 50,842	5.31%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	602,281	739,933	858,387	118,454	16.01%
121 - Public Safety .16%	80,885	-	-	-	-
125 - Poudre River Trail	-	217,386	149,774	(67,612)	-31.10%
Total Expenditures by Fund	\$ 683,166	\$ 957,319	\$ 1,008,161	\$ 50,842	5.31%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Natural Areas & Trails	573,281	710,933	829,387	118,454	16.66%
Poudre River Trail	109,885	246,386	178,774	(67,612)	-27.44%
Total Expenditures by Activity	\$ 683,166	\$ 957,319	\$ 1,008,161	\$ 50,842	5.31%

ACTIVITY DESCRIPTION

The **Natural Areas and Trails** division provides maintenance and management of the City's natural areas and open spaces, trail maintenance and construction management, oversight of the Poudre River Trail, and land acquisition strategies for new spaces in addition to caring for 1000+ acres of current natural areas/open space.

PARKS

PURPOSE: To develop, maintain, and manage City-owned and cooperative parklands and athletic fields in a safe and aesthetically pleasing manner for the citizens of Greeley and the surrounding region.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	92,931	100,155	348,249	248,094	248%
Licenses & Permits	1,610	2,100	2,100	-	-
Miscellaneous Revenue	95,095	104,150	119,150	15,000	14.40%
Transfers In	1,631,145	1,715,115	2,013,139	298,024	17.38%
Use of Fund Balance	2,721,015	3,157,751	3,109,562	(48,189)	-1.53%
Total Resources	\$ 4,541,795	\$ 5,079,271	\$ 5,592,200	\$ 512,929	10.10%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	3,019,119	3,390,404	3,667,102	276,698	8.16%
Supplies & Services	1,381,018	1,547,767	1,499,698	(48,069)	-3.11%
Capital	141,658	141,100	425,400	284,300	201%
Total Expenditures by Category	\$ 4,541,795	\$ 5,079,271	\$ 5,592,200	\$ 512,929	10.10%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	4,388,790	4,938,171	5,166,800	228,629	4.63%
143 - Community Memorials	1,140	-	-	-	-
512 - Fleet Replacement	151,865	141,100	-	(141,100)	-100%
513 - Equipment Replacement	-	-	425,400	425,400	-
Total Expenditures by Fund	\$ 4,541,795	\$ 5,079,271	\$ 5,592,200	\$ 512,929	10.10%

PARKS

CONTINUED

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Baseball Fields	129,376	170,909	173,937	3,028	1.77%
Community & Neighborhood Parks	2,286,937	2,573,016	2,765,935	192,919	7.50%
Downtown Plaza	182,260	221,346	199,773	(21,573)	-9.75%
Emerald Ash Bore	73,476	60,150	50,000	(10,150)	-16.87%
Equipment Replacement CPRD	-	-	425,400	425,400	-
Forestry	876,705	893,782	1,027,156	133,374	14.92%
Island Grove Multi-Use Fields	31,845	36,617	37,474	857	2.34%
Median/Bikepath/Parkways	267,292	322,618	246,104	(76,514)	-23.72%
Memorial Tree Program	1,140	-	-	-	-
Parks Equipment	151,865	141,100	-	(141,100)	-100%
Promontory Point	45,861	57,657	58,202	545	0.95%
Public Building Grounds	83,413	102,378	87,391	(14,987)	-14.64%
Sports Complex	262,090	299,400	310,016	10,616	3.55%
Twin Rivers Park	149,536	200,298	210,812	10,514	5.25%
Total Expenditures by Activity	\$ 4,541,795	\$ 5,079,271	\$ 5,592,200	\$ 512,929	10.10%

ACTIVITY DESCRIPTIONS

Parks is divided into the following programs: **Baseball Fields, Community/Neighborhood Parks, Downtown Plaza, Forestry, Medians/Bike Paths/Parkways, Multi-Use Fields, Planning & Support Services, Promontory Point, Public Building Grounds, Sports Complex, and Twin Rivers Park.**

Parks staff provide the following for each of the previously listed locations: site planning, support for development and construction of new facilities, rehabilitation of existing facilities, repairs, and total grounds maintenance for City parks. It also provides support for special events such as City functions and Downtown Plaza events.

Island Grove Regional Park includes building maintenance, scheduling and rentals of arena, city/county building spaces, horse stalls, picnic areas, along with regional park maintenance and management.

Forestry provides enforcement of the sections of the Greeley Municipal Code that pertain to trees, shrubs, and other woody vegetation including planting, removing, trimming, and treating trees within the city. Forestry also works to ease traffic obstructions caused by vegetation and monitors and manages insect and disease issues in the urban forest. The program also provides for the licensing and monitoring of tree contractors and provides for the maintenance of tree, shrub and floral plantings in the parks system or on other City-owned properties.

A **Memorial Tree Program** is also managed by Forestry as trees are requested.

Parks Equipment is separated out in the Fleet Replacement Fund to distinguish parks equipment from city fleet purchases.

RECREATION

PURPOSE: To provide a year-round, comprehensive recreation program for all age groups within the community and strive to be the key regional provider of recreational services. This division has oversight of the FunPlex and programming of Twin Rivers Softball Complex, Ice Haus, downtown Recreation Center, Senior Activity Center, outdoor aquatic facilities, Island Grove Sports Complex and Monfort Sports Park.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	677,382	1,710,745	2,182,080	471,335	27.55%
Intergovernmental Revenue	39,816	45,000	45,000	-	-
Miscellaneous Revenue	265,520	311,500	423,712	112,212	36.02%
Transfers In	116,968	35,000	19,000	(16,000)	-45.71%
Use of Fund Balance	3,002,329	3,618,390	4,108,560	490,170	13.55%
Total Resources	\$ 4,102,014	\$ 5,720,635	\$ 6,778,352	\$ 1,057,717	18.49%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	2,781,339	3,689,687	4,532,090	842,403	22.83%
Supplies & Services	1,239,643	1,824,748	2,242,262	417,514	22.88%
Capital	61,033	186,200	-	(186,200)	-100%
Transfers Out	20,000	20,000	4,000	(16,000)	-80.00%
Total Expenditures by Category	\$ 4,102,014	\$ 5,720,635	\$ 6,778,352	\$ 1,057,717	18.49%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	4,088,130	5,633,720	6,709,107	1,075,387	19.09%
121 - Public Safety .16%	3,686	-	-	-	-
126 - Youth And Senior Assistance	-	35,000	35,000	-	-
127 - Youth Enrichment	3,916	30,240	12,570	(17,670)	-58.43%
142 - Senior Center Clubs	6,282	21,675	21,675	-	-
Total Expenditures by Fund	\$ 4,102,014	\$ 5,720,635	\$ 6,778,352	\$ 1,057,717	18.49%

RECREATION

CONTINUED

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
ADA & Accessibility	31,730	89,207	107,122	17,915	20.08%
Administration Recreation	543,207	646,430	610,481	(35,949)	-5.56%
Adult Sports	81,235	85,920	138,069	52,149	60.69%
Aquatics - Funplex	258,796	425,586	456,119	30,533	7.17%
Aquatics - Recreation Center	101,695	166,887	180,131	13,244	7.94%
Boxing	3,881	5,400	7,800	2,400	44.44%
Centennial Pool	98,590	97,934	130,629	32,695	33.38%
Classes/Programs - Funplex	21,123	15,000	15,000	-	-
Classes/Programs - Ice Haus	32,972	51,019	88,133	37,114	72.75%
Classes/Programs - Recreation Center	77,549	82,153	115,654	33,501	40.78%
Classes/Programs - Rodarte Center	108,920	216,160	367,769	151,609	70.14%
Dance Club	-	1,750	1,750	-	-
Discovery Bay	8,767	100,881	123,776	22,895	22.70%
Fitness - FunPlex	64,138	169,452	221,307	51,855	30.60%
Fitness - Recreation Center	37,259	72,578	115,750	43,172	59.48%
Grants	13,132	10,852	10,852	-	-
GRASP	-	925	925	-	-
Investment Earnings	37	35	35	-	-
Keen-Age Singers Club	86	630	630	-	-
Maintenance - Active Adult Center	31,653	43,571	44,632	1,061	2.44%
Maintenance - Funplex	133,399	150,727	153,586	2,859	1.90%
Maintenance - Ice Haus	112,125	33,400	33,051	(349)	-1.04%
Maintenance - Recreation Center	98,180	98,709	104,683	5,974	6.05%
Maintenance - Rodarte Cen	31,478	23,868	28,203	4,335	18.16%
Meadowlark Square Dance	25	85	85	-	-
Operations - Active Adult Center	328,367	352,669	509,974	157,305	44.60%
Operations - Funplex	595,552	880,770	1,004,041	123,271	14.00%
Operations - Ice Haus	431,417	561,587	660,912	99,325	17.69%
Operations - Recreation Center	329,232	496,861	555,216	58,355	11.74%
Operations - Rodarte Center	314,418	381,551	411,364	29,813	7.81%
Pool Club	-	2,950	2,950	-	-
Senior Advisory Committee	5,758	11,900	11,900	-	-
Senior Classes	4,792	23,404	53,335	29,931	128%
Senior Sports	440	4,651	6,266	1,615	34.72%
Senior Travel	2,503	-	32,714	32,714	-
Shuffleboard Club	26	400	400	-	-
Softball Club	-	1,700	1,700	-	-

RECREATION

CONTINUED

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Splash Parks	8,197	18,517	20,296	1,779	9.61%
Sunshine Band Club	350	1,300	1,300	-	-
Youth Assistance	3,686	35,000	35,000	-	-
Youth Enrichment	3,916	30,240	12,570	(17,670)	-58.43%
Youth Sports	183,383	327,976	402,242	74,266	22.64%
Total Expenditures by Activity	\$ 4,102,014	\$ 5,720,635	\$ 6,778,352	\$ 1,057,717	18.49%

ACTIVITY DESCRIPTIONS

Sports includes all youth and adult sports, camps and tournaments.

Aquatics includes oversight and programming of the outdoor aquatic facilities including Centennial Pool, Discovery Bay Pool, Island Grove Splash Park and Sunrise Splash Park.

The **Greeley Recreation Center** includes day to day operational oversight of the center and front desk operations, scheduling of the Recreation Center, Active Adult Center and parks to support all Department of Culture, Parks & Recreation needs. Develops and presents instructional programs, fitness/wellness programs, and all aquatics programs within the facility such as lessons, open swim and aqua fitness. In addition, it hosts various community classes and events.

The **Active Adult Center** plans, promotes and presents a comprehensive, year-round activities program, both active and passive, to a diverse senior participant group locally and regionally. This program includes, sports, classes, special events, daily drop-in activities, crafts and other recreational opportunities.

The **Ice Haus** plans and provides for a comprehensive, year-round program to fully utilize the single sheet ice venue. Included in this task are the day to day operations and maintenance of the Ice Haus, seeking out and contracting for ice use time, planning tournaments and special events, and working with both City staff and downtown merchants to create the enhanced traffic flow to the downtown area.

The **Family FunPlex** develops and presents innovative opportunities for participants of all ages to enjoy the venue as well as the surrounding Twin Rivers Park. Included in this task are the day to day programming of the venue to ensure maximum use of the facility including the indoor Adventure Island water park, indoor field house (sport court for volleyball, basketball, soccer, inline skating), the Adventure Miniature Golf Course, birthday parties, Kid Kare Room, instructional programs, and fitness/wellness programs within the weight room, three fitness areas and the indoor track. In addition, this area schedules the use of the outdoor amphitheater.

The **Rodarte Community Center** plans and provides for a comprehensive, year-round program of recreational and educational programs including After School and school break programs, Fun in the Sun summer day camp, STEM Scholars and Boxing.

The **Adaptive and Inclusive Recreation Program (AIR)** includes the planning and implementation of ADA accessibility requirements for programs and strives for inclusivity in all programs and public facilities for persons with disabilities.

Recreation Administration oversees all the recreation areas and ensures that community needs are met. The division is also tasked with the daily custodial and minor maintenance of the UCCC, Greeley Recreation Center, Family FunPlex, Ice Haus Active Adult Center, and the Rodarte Community Center.

Clubs & Activities include activities provided by the Active Adult Center Clubs Fund.





FINANCE

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	132,786	254,618	248,276	(6,342)	-2.49%
Intergovernmental Revenue	1,891	-	-	-	-
Taxes	2,568,669	409,000	410,000	1,000	0.24%
Miscellaneous Revenue	141,040	111,000	101,000	(10,000)	-9.01%
Transfers In	1,154,243	1,393,564	1,239,150	(154,414)	-11.08%
Use of Fund Balance	(1,218,914)	1,121,629	1,545,468	423,839	37.79%
Total Resources	\$ 2,779,716	\$ 3,289,811	\$ 3,543,894	\$ 254,083	7.72%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	2,315,820	2,744,737	3,016,057	271,320	9.89%
Supplies & Services	463,896	545,074	527,837	(17,237)	-3.16%
Total Expenditures by Category	\$ 2,779,716	\$ 3,289,811	\$ 3,543,894	\$ 254,083	7.72%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	2,680,138	3,085,611	3,339,694	254,083	8.23%
106 - Sales & Use Tax	-	-	-	-	-
503 - Communications	99,578	204,200	204,200	-	-
Total Expenditures by Fund	\$ 2,779,716	\$ 3,289,811	\$ 3,543,894	\$ 254,083	7.72%

Expenditures by Division	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Accounting Operations	457,409	465,553	499,972	34,419	7.39%
Budget	352,937	444,083	473,356	29,273	6.59%
Cash Operations	59,166	72,597	141,019	68,422	94.25%
Financial Reporting	406,039	398,770	416,328	17,558	4.40%
Financial Services	99,578	204,200	204,200	-	-
Fiscal Management	408,264	570,728	621,935	51,207	8.97%
Purchasing	267,268	308,272	314,836	6,564	2.13%
Sales Tax Administration	244,659	275,595	291,515	15,920	5.78%
Utility Billing	484,397	550,013	580,733	30,720	5.59%
Total Expenditures by Division	\$ 2,779,716	\$ 3,289,811	\$ 3,543,894	\$ 254,083	7.72%

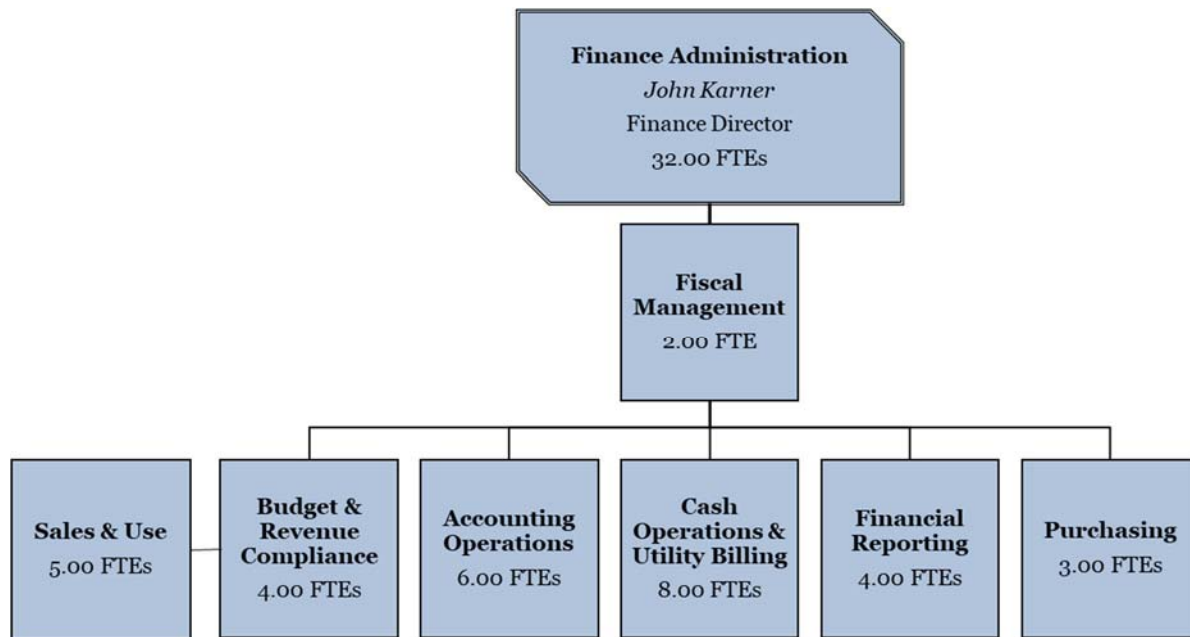
FINANCE

CONTINUED

GENERAL DESCRIPTION

The **Finance** Department is responsible for the administration of the financial affairs of the City including compiling financial information and data for the City Manager's annual budget, the supervision of disbursement of all monies and control over all expenditures to ensure appropriations are not exceeded, the design and maintenance of a general accounting system along with the development and maintenance of internal controls, preparation of periodic statements of receipts and disbursements showing the financial and budgetary condition of the City, preparation of year-end financial statements, the collection of all revenue due to the City, investment of City funds, the purchasing of goods and services, and the disposal of surplus assets.

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
PROFESSIONAL SERVICES	FINANCE	\$ 250,000
TRAINING & CONFERENCES	FINANCE	15,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 265,000

FINANCE

CONTINUED

FTE SUMMARY

Finance	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Financial Reporting				
Accountant I	1.00	1.00	-	1.00
Accountant II	2.00	2.00	-	2.00
Accountant IV	1.00	1.00	-	1.00
Total Financial Reporting	4.00	4.00	-	4.00
Accounting Operations				
Accountant III	1.00	-	-	-
Accountant IV	-	1.00	-	1.00
Accounting Clerk I	1.00	1.00	-	1.00
Accounting Clerk II	2.00	2.00	-	2.00
Administrative Specialist I	1.00	-	-	-
Administrative Specialist II	-	1.00	-	1.00
Payroll Accountant	1.00	1.00	-	1.00
Total Accounting Operations	6.00	6.00	-	6.00
Fiscal Management				
Deputy Finance Director	-	1.00	-	1.00
Finance Director	1.00	1.00	-	1.00
Total Fiscal Management	1.00	1.00	-	2.00
Budget & Revenue Compliance				
Budget & Compliance Manager	1.00	1.00	-	1.00
Financial Analyst	3.00	1.00	-	1.00
Financial Analyst II	-	2.00	-	2.00
Total Budget & Revenue Compliance	4.00	4.00	-	4.00
Purchasing				
Contract Specialist I	1.00	1.00	-	1.00
Contract Specialist II	2.00	1.00	-	1.00
Purchasing Manager	-	1.00	-	1.00
Total Purchasing	3.00	3.00	-	3.00
Cash Operations & Utility Billing				
Customer Service Supervisor	1.00	1.00	-	1.00
Field Services Representative	1.00	1.00	-	1.00
Finance Service Specialist I	4.50	5.00	-	5.00
Finance Service Specialist II	1.00	1.00	-	1.00
Total Cash Operations & Utility Billing	7.50	8.00	-	8.00
Sales Tax Administration				
Revenue & Business License Manager	1.00	1.00	-	1.00
Sales Tax Auditor	1.00	1.00	-	1.00
Sales Tax Technician I	2.00	2.00	-	2.00
Sales Tax Technician II	1.00	1.00	-	1.00
Total Sales Tax Administration	5.00	5.00	-	5.00
Total Finance	30.50	32.00	-	32.00

FINANCE

CONTINUED

PERFORMANCE INDICATORS

- Sufficient Reserves & Fund Balance Requirements
- Financial Performance Indicators
- Bond Ratings & Awards
- Food Tax Rebate Program
- Payments

ACCOUNTING OPERATIONS

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Transfers In	181,799	250,320	145,239	(105,081)	-41.98%
Use of Fund Balance	275,610	215,233	354,733	139,500	64.81%
Total Resources	\$ 457,409	\$ 465,553	\$ 499,972	\$ 34,419	7.39%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	449,179	449,798	480,717	30,919	6.87%
Supplies & Services	8,230	15,755	19,255	3,500	22.22%
Total Expenditures by Category	\$ 457,409	\$ 465,553	\$ 499,972	\$ 34,419	7.39%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	457,409	465,553	499,972	34,419	7.39%
Total Expenditures by Fund	\$ 457,409	\$ 465,553	\$ 499,972	\$ 34,419	7.39%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Accounting Operations	457,409	465,553	499,972	34,419	7.39%
Total Expenditures by Activity	\$ 457,409	\$ 465,553	\$ 499,972	\$ 34,419	7.39%

ACTIVITY DESCRIPTION

Accounting Operations reviews purchase orders, creates vendor accounts, processes requests for payment, payroll, and oversees the Visa Card program.

BUDGET

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Transfers In	114,347	141,814	140,896	(918)	-0.65%
Use of Fund Balance	238,589	302,269	332,460	30,191	9.99%
Total Resources	\$ 352,937	\$ 444,083	\$ 473,356	\$ 29,273	6.59%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	337,503	429,483	466,341	36,858	8.58%
Supplies & Services	15,434	14,600	7,015	(7,585)	-51.95%
Total Expenditures by Category	\$ 352,937	\$ 444,083	\$ 473,356	\$ 29,273	6.59%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	352,937	444,083	473,356	29,273	6.59%
Total Expenditures by Fund	\$ 352,937	\$ 444,083	\$ 473,356	\$ 29,273	6.59%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Budget	352,937	444,083	473,356	29,273	6.59%
Total Expenditures by Activity	\$ 352,937	\$ 444,083	\$ 473,356	\$ 29,273	6.59%

ACTIVITY DESCRIPTION

Budget is responsible for the City's budget and budget documents.

CASH OPERATIONS & UTILITY BILLING

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	2,772	-	-	-	-
Transfers In	521,211	545,227	621,149	75,922	13.92%
Use of Fund Balance	19,580	77,383	100,603	23,220	30.01%
Total Resources	\$ 543,562	\$ 622,610	\$ 721,752	\$ 99,142	15.92%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	382,678	421,266	511,109	89,843	21.33%
Supplies & Services	160,885	201,344	210,643	9,299	4.62%
Total Expenditures by Category	\$ 543,562	\$ 622,610	\$ 721,752	\$ 99,142	15.92%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	543,562	622,610	721,752	99,142	15.92%
Total Expenditures by Fund	\$ 543,562	\$ 622,610	\$ 721,752	\$ 99,142	15.92%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Cash Operations	59,166	72,597	141,019	68,422	94.25%
Utility Billing	484,397	550,013	580,733	30,720	5.59%
Total Expenditures by Activity	\$ 543,562	\$ 622,610	\$ 721,752	\$ 99,142	15.92%

ACTIVITY DESCRIPTIONS

Cash Operations is responsible for all customer service, cashiering, and billing. This area oversees the Food Tax Rebate Program, bill printing, the bill stuffer and mailing contract.

The **Utility Billing** staff provides billing services to the City utility customers, answers public inquiries, maintains utility billing records, performs special utility meter reading service requests.

FINANCIAL MANAGEMENT

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	132,786	254,618	248,276	(6,342)	-2.49%
Intergovernmental Revenue	1,891	-	-	-	-
Taxes	2,568,669	409,000	410,000	1,000	0.24%
Miscellaneous Revenue	7,938	1,000	1,000	-	-
Transfers In	93,890	116,070	128,034	11,964	10.31%
Use of Fund Balance	(2,297,333)	(5,760)	38,825	44,585	-774.05%
Total Resources	\$ 507,842	\$ 774,928	\$ 826,135	\$ 51,207	6.61%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	238,345	488,091	559,574	71,483	14.65%
Supplies & Services	269,497	286,837	266,561	(20,276)	-7.07%
Total Expenditures by Category	\$ 507,842	\$ 774,928	\$ 826,135	\$ 51,207	6.61%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	408,264	570,728	621,935	51,207	8.97%
106 - Sales & Use Tax	-	-	-	-	-
503 - Communications	99,578	204,200	204,200	-	-
Total Expenditures by Fund	\$ 507,842	\$ 774,928	\$ 826,135	\$ 51,207	6.61%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Copiers	65,265	152,000	152,000	-	-
Investment Earnings	455	100	100	-	-
Operations	408,264	570,728	621,935	51,207	8.97%
Paper/Envelopes	1,439	5,200	5,200	-	-
Postage	32,419	46,900	46,900	-	-
Taxes	-	-	-	-	-
Total Expenditures by Activity	\$ 507,842	\$ 774,928	\$ 826,135	\$ 51,207	6.61%

ACTIVITY DESCRIPTIONS

Financial Services & Fiscal Management provides complete and accurate financial information to management, City Council, City departments and to the citizens of Greeley. It also provides administrative direction for the entire Finance Department in addition to debt issuance and debt management.

FINANCIAL REPORTING

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Transfers In	179,091	261,488	123,177	(138,311)	-52.89%
Use of Fund Balance	226,947	137,282	293,151	155,869	113.54%
Total Resources	\$ 406,039	\$ 398,770	\$ 416,328	\$ 17,558	4.40%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	402,666	392,637	407,695	15,058	3.84%
Supplies & Services	3,373	6,133	8,633	2,500	40.76%
Total Expenditures by Category	\$ 406,039	\$ 398,770	\$ 416,328	\$ 17,558	4.40%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	406,039	398,770	416,328	17,558	4.40%
Total Expenditures by Fund	\$ 406,039	\$ 398,770	\$ 416,328	\$ 17,558	4.40%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Financial Reporting	406,039	398,770	416,328	17,558	4.40%
Total Expenditures by Activity	\$ 406,039	\$ 398,770	\$ 416,328	\$ 17,558	4.40%

ACTIVITY DESCRIPTION

Financial Reporting includes processing bank transactions and reconciliation, creation of Comprehensive Annual Financial Report, Investments, and fund accounting.

PURCHASING

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Miscellaneous Revenue	130,330	110,000	100,000	(10,000)	-9.09%
Transfers In	63,905	78,645	80,655	2,010	2.56%
Use of Fund Balance	73,033	119,627	134,181	14,554	12.17%
Total Resources	\$ 267,268	\$ 308,272	\$ 314,836	\$ 6,564	2.13%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	262,189	296,142	302,506	6,364	2.15%
Supplies & Services	5,079	12,130	12,330	200	1.65%
Total Expenditures by Category	\$ 267,268	\$ 308,272	\$ 314,836	\$ 6,564	2.13%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	267,268	308,272	314,836	6,564	2.13%
Total Expenditures by Fund	\$ 267,268	\$ 308,272	\$ 314,836	\$ 6,564	2.13%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Purchasing	267,268	308,272	314,836	6,564	2.13%
Total Expenditures by Activity	\$ 267,268	\$ 308,272	\$ 314,836	\$ 6,564	2.13%

ACTIVITY DESCRIPTION

Purchasing provides a purchasing team which is utilized for any City purchase. This team assists with specifications, prepares bids, and assures observance of City ordinances pertaining to purchasing and contracting. The purchasing staff serves as an interface between departmental personnel and vendors.

SALES TAX

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Use of Fund Balance	244,659	275,595	291,515	15,920	5.78%
Total Resources	\$ 244,659	\$ 275,595	\$ 291,515	\$ 15,920	5.78%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	243,261	267,320	288,115	20,795	7.78%
Supplies & Services	1,398	8,275	3,400	(4,875)	-58.91%
Total Expenditures by Category	\$ 244,659	\$ 275,595	\$ 291,515	\$ 15,920	5.78%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	244,659	275,595	291,515	15,920	5.78%
Total Expenditures by Fund	\$ 244,659	\$ 275,595	\$ 291,515	\$ 15,920	5.78%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Sales Tax Administration	244,659	275,595	291,515	15,920	5.78%
Total Expenditures by Activity	\$ 244,659	\$ 275,595	\$ 291,515	\$ 15,920	5.78%

ACTIVITY DESCRIPTION

Sales Tax Administration ensures the collection and auditing of sale and uses taxes and the issuing of business licenses.





FIRE DEPARTMENT

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	531,039	505,940	326,503	(179,437)	-35.47%
Intergovernmental Revenue	37,335	38,980	-	(38,980)	-100%
Miscellaneous Revenue	103,168	109,250	-	(109,250)	-100%
Transfers In	3,091,720	1,849,293	3,533,926	1,684,633	91.10%
Use of Fund Balance	15,473,022	19,281,681	18,538,769	(742,912)	-3.85%
Total Resources	\$ 19,236,285	\$ 21,785,144	\$ 22,399,198	\$ 614,054	2.82%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	16,034,352	17,754,955	17,688,254	(66,701)	-0.38%
Supplies & Services	2,795,502	3,441,209	3,608,226	167,017	4.85%
Capital	39,440	16,980	310,900	293,920	1,731%
Debt	60,991	72,000	61,000	(11,000)	-15.28%
Transfers Out	306,000	500,000	730,818	230,818	46.16%
Total Expenditures by Category	\$ 19,236,285	\$ 21,785,144	\$ 22,399,198	\$ 614,054	2.82%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	19,236,285	21,785,144	21,920,902	135,758	0.62%
512 - Fleet Replacement	-	-	167,396	167,396	-
513 - Equipment Replacement	-	-	310,900	310,900	-
Total Expenditures by Fund	\$ 19,236,285	\$ 21,785,144	\$ 22,399,198	\$ 614,054	2.82%

Expenditures by Division	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Administration	929,407	1,579,162	1,268,538	(310,624)	-19.67%
Community Safety	1,574,969	1,602,694	1,721,036	118,342	7.38%
Operations	16,215,460	17,899,489	18,720,107	820,618	4.58%
Training	516,449	703,799	689,517	(14,282)	-2.03%
Total Expenditures by Division	\$ 19,236,285	\$ 21,785,144	\$ 22,399,198	\$ 614,054	2.82%

FIRE DEPARTMENT

CONTINUED

GENERAL DESCRIPTION

The mission of the **Greeley Fire Department** is to create and maintain a safe and healthy community through relentless preparation and delivery of world class emergency services to the citizens of and visitors to Greeley and the Western Hills Fire Protection District. The Fire Chief functions as a City department head and reports to the City Manager. The Department consists of three divisions: Administration, Community Safety, and Operations.

HOW THE DEPARTMENT IS ORGANIZED

The Administration division, under the direction of the Fire Chief, provides policy and administrative direction for all functions of the department's operations. This division interacts with community leaders, other local governments, and the business community to identify community needs and develop programs. This division provides required administrative services and information to the City of Greeley and the Western Hills Fire Protection District. This division also develops and implements the Emergency Management activities for the City.

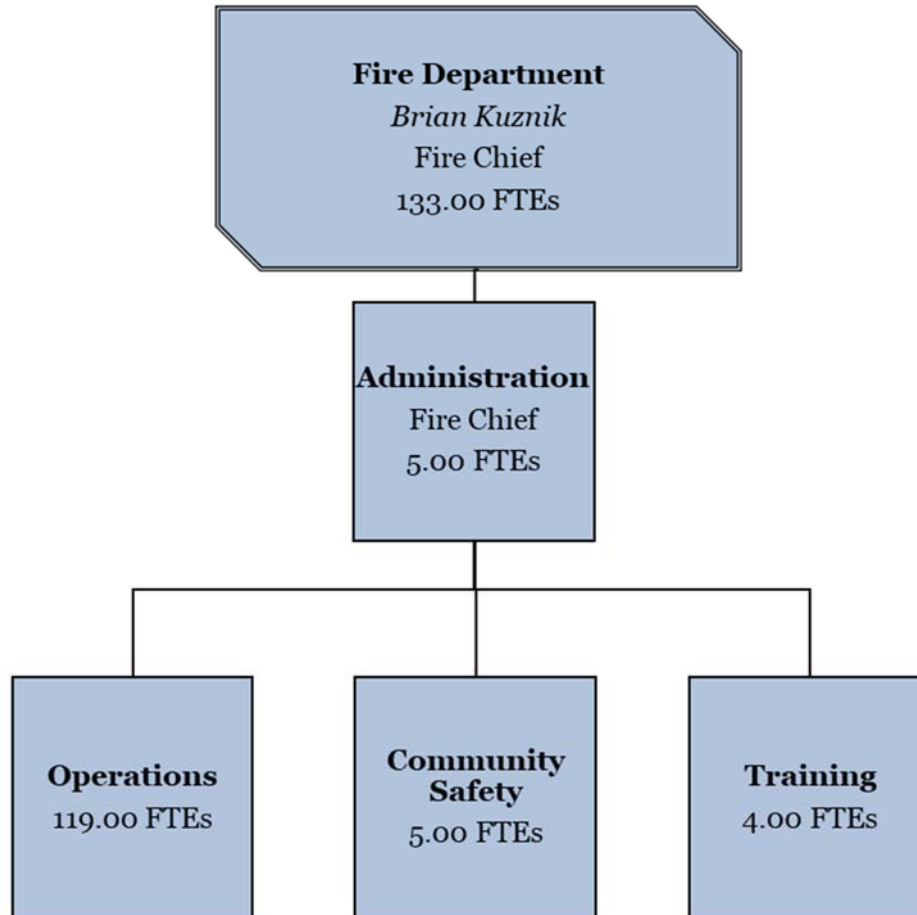
The **Community Safety** division reports to a Division Chief and provides services which focus on community risk reduction including the frequency and severity of fires, explosions, oil & gas safety, and other threats to property and life. The division enforces adopted fire codes and ordinances. It also supports the data management systems for the department, interacts with the City's Information Technology division and the Weld County Emergency Communications Center. The division reviews development and building plans for compliance with fire and life safety standards, and coordinates the computer hardware and software programs for the department.

The **Operations** division reports to a Division Chief and provides public safety through effective response to fires, medical emergencies, and other incidents that threaten public safety. It also supports the mission of the Community Safety division and conducts pre-fire planning activities, maintains all equipment and stations, and oversees major capital rolling stock acquisitions. The Training program within the Operations division provides academic instruction, field instruction and quality control for firefighting, emergency medical/rescue, basic & advanced life support procedures, and other specialized functions to maintain state and nationally recognized certification for members of the department. It manages departmental safety and coordinates criteria for the fitness and health standards of the department and addresses tuition costs for fire related college courses and represents the department within the Front Range Fire Consortium.

FIRE DEPARTMENT

CONTINUED

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
SUPPORT SERVICES ASSISTANT DIVISION CHIEF (SIX MONTHS) & EQUIPMENT	FIRE	\$ 95,952
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 95,952

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ONE FIRE VEHICLE	FIRE	\$ 46,000
EMERGENCY MANAGEMENT PROGRAM ASSESSMENT	FIRE	45,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 91,000

FIRE DEPARTMENT

CONTINUED

FTE SUMMARY

Fire	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administration				
Assistant Emergency Manager Specialist	-	1.00	-	1.00
Emergency Manager	-	1.00	-	1.00
Fire Captain Specialist	-	1.00	(1.00)	-
Fire Chief	1.00	1.00	-	1.00
Fire Division Chief	1.00	1.00	-	1.00
Senior Administrative Specialist	1.00	1.00	-	1.00
Total Administration	3.00	6.00	(1.00)	5.00
Community Safety				
Administrative Specialist II	1.00	1.00	-	1.00
Fire Captain Specialist	-	1.00	-	1.00
Fire Marshal	1.00	-	-	-
Fire Lieutenant Specialist: Basic	1.00	1.00	-	1.00
Fire Lieutenant Specialist: Intermediate	-	1.00	-	1.00
Fire Staff Specialist: Basic	1.00	1.00	-	1.00
Total Community Safety	4.00	5.00	-	5.00
Operations				
Battalion Chief	2.00	-	-	-
Community Paramedic	1.00	2.00	-	2.00
Deputy Fire Marshall	1.00	-	-	-
Division Chief of Support Services	-	-	1.00	1.00
Fire Captain	-	2.00	4.00	6.00
Fire Division Chief	1.00	1.00	-	1.00
Fire Engineer: Basic	18.00	17.00	1.00	18.00
Fire Engineer: Intermediate	5.00	4.00	(1.00)	3.00
Fire Engineer: Paramedic	1.00	2.00	4.00	6.00
Fire Lieutenant: Basic	10.00	14.00	-	14.00
Fire Lieutenant: Intermediate	9.00	7.00	(1.00)	6.00
Fire Lieutenant: Paramedic	5.00	5.00	2.00	7.00
Fire Lieutenant Specialist: Basic	1.00	-	-	-
Firefighter: Ambulance	3.00	-	-	-
Firefighter: Basic	45.00	40.00	(12.00)	28.00
Firefighter: Intermediate	1.00	1.00	-	1.00
Firefighter: Paramedic	17.00	24.00	1.00	25.00
Fire Staff Specialist: Basic	1.00	-	-	-
Senior Administrative Specialist	1.00	1.00	-	1.00
Total Operations	122.00	120.00	(1.00)	119.00
Training				
Fire Captain Specialist	1.00	1.00	-	1.00
Fire Lieutenant Specialist: Basic	1.00	1.00	-	1.00
Fire Lieutenant Specialist: Paramedic	1.00	1.00	-	1.00
Training Specialist	1.00	1.00	-	1.00
Total Training	4.00	4.00	-	4.00
Total Fire	133.00	135.00	(2.00)	133.00

FIRE DEPARTMENT

CONTINUED

DELAYED POSITIONS

The table below identifies delayed hiring for the following positions due to facility closures and current circumstances. The total FTEs associated with these positions are included in the 1,003.75 Citywide Full-Time Equivalents, however, only the prorated amount associated with these positions is included in the actual budgeted expenditures.

Description	Department	Start Date
Division Chief of Support Services	Fire Department	7/1/2022

PERFORMANCE INDICATORS

- Total number of Fires
- Community Fire Loss
- Total Fire/EMS calls
- Annual Inspections
- Plans Reviewed
- Fires in Commercial Occupancies – Receive Code Compliance Inspections

ADMINISTRATION

PURPOSE: Administration provides policy and administrative direction for all functions of the department's operations.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	134	-	-	-	-
Intergovernmental Revenue	37,335	38,980	-	(38,980)	-100%
Miscellaneous Revenue	8,725	-	-	-	-
Use of Fund Balance	883,212	1,540,182	1,268,538	(271,644)	-17.64%
Total Resources	\$ 929,407	\$ 1,579,162	\$ 1,268,538	(\$ 310,624)	-19.67%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	626,560	858,605	747,935	(110,670)	-12.89%
Supplies & Services	241,856	631,577	459,603	(171,974)	-27.23%
Capital	-	16,980	-	(16,980)	-100%
Debt	60,991	72,000	61,000	(11,000)	-15.28%
Total Expenditures by Category	\$ 929,407	\$ 1,579,162	\$ 1,268,538	(\$ 310,624)	-19.67%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Emergency Management	172,939	241,823	294,762	52,939	21.89%
Fire Administration	624,266	748,995	631,063	(117,932)	-15.75%
Old Hire Pension Liability	71,211	516,344	281,713	(234,631)	-45.44%
Zoll Heart Monitor Lease	60,991	72,000	61,000	(11,000)	-15.28%
Total Expenditures by Activity	\$ 929,407	\$ 1,579,162	\$ 1,268,538	(\$ 310,624)	-19.67%

ACTIVITY DESCRIPTIONS

Administration provides direction, coordinating, budget oversight and reporting of all activities within the department.

Old Hire Pension Liability is the old fire pension plan no longer offered that is funded annually based on pension costs.

Zoll Heart Monitor Lease is 6 year agreement with the vendor for cardiac monitor / AED equipment. The note is funded by the General fund with annual payments of \$72,000.

COMMUNITY SAFETY

PURPOSE: Serves to reduce the frequency and intensity of fire and hazardous material incidents in a cost-effective manner and to support the overall efforts of the department in accomplishing its mission and goals. This division also serves as the coordinator of Emergency Management for the department and the City of Greeley.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	89,067	96,544	56,000	(40,544)	-42.00%
Miscellaneous Revenue	7,000	-	-	-	-
Use of Fund Balance	1,478,902	1,506,150	1,665,036	158,886	10.55%
Total Resources	\$ 1,574,969	\$ 1,602,694	\$ 1,721,036	\$ 118,342	7.38%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	661,860	559,865	671,546	111,681	19.95%
Supplies & Services	913,110	1,042,829	1,049,490	6,661	0.64%
Total Expenditures by Category	\$ 1,574,969	\$ 1,602,694	\$ 1,721,036	\$ 118,342	7.38%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Communications	445,974	559,204	439,589	(119,615)	-21.39%
Inspections	12,415	19,400	19,400	-	-
Investigations	5,347	7,875	16,225	8,350	106%
Life Safety Services	665,705	559,865	671,546	111,681	19.95%
Public Safety Education	9,975	20,075	20,075	-	-
Records Management System	435,555	436,275	554,201	117,926	27.03%
Total Expenditures by Activity	\$ 1,574,969	\$ 1,602,694	\$ 1,721,036	\$ 118,342	7.38%

ACTIVITY DESCRIPTIONS

Emergency Management develops and implements the Emergency Management activities for the department and the City of Greeley.

Information Management acts as liaison between the department and the City of Greeley Information Technology division and manages all the department's communications systems and software needs.

Life Safety Services provides for fire cause determination of fires occurring in the department's jurisdiction and the investigation of all fires potentially caused by arson. This activity, along with support of the Bomb Squad, is shared with the Police Department. It also provides plan reviews and inspections for compliance with fire safety requirements for all new construction within the department's jurisdiction. This division enforces the fire code and related municipal and department provisions for all existing occupancies, other than single family residences.

OPERATIONS

PURPOSE: To provide public safety through effective response and mitigation of fires, medical emergencies, and other natural or man-made disasters. To plan, develop, and coordinate fire, emergency medical, hazardous materials, emergency management and other specialized training. This division ensures the health and safety of all personnel.

Resources	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Charges for Services	441,838	406,396	270,503	(135,893)	-33.44%
Miscellaneous Revenue	87,443	109,250	-	(109,250)	-100%
Transfers In	3,091,720	1,849,293	3,533,926	1,684,633	91.10%
Use of Fund Balance	12,594,459	15,534,550	14,915,678	(618,872)	-3.98%
Total Resources	\$ 16,215,460	\$ 17,899,489	\$ 18,720,107	\$ 820,618	4.58%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	14,286,533	15,725,024	15,706,586	(18,438)	-0.12%
Supplies & Services	1,583,486	1,674,465	1,971,803	297,338	17.76%
Capital	39,440	-	310,900	310,900	-
Transfers Out	306,000	500,000	730,818	230,818	46.16%
Total Expenditures by Category	\$ 16,215,460	\$ 17,899,489	\$ 18,720,107	\$ 820,618	4.58%

OPERATIONS

CONTINUED

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Alternative Response Program	124,983	203,105	213,994	10,889	5.36%
Ambulance Service	327,761	386,034	-	(386,034)	-100%
Apparatus Maintenance	653,764	992,410	1,066,975	74,565	7.51%
Emergency Response Operations	12,493,731	13,164,847	13,708,442	543,595	4.13%
Equipment Replacement Fire	-	-	310,900	310,900	-
Facilities Maintenance	242,831	216,300	229,673	13,373	6.18%
Fire Equipment	-	-	167,396	167,396	-
Fire Fighters Station #6	1,266,840	2,192,310	2,260,709	68,399	3.12%
Fire Operations	25,719	14,400	14,400	-	-
Hazardous Materials	42,217	37,115	38,065	950	2.56%
Medical Services	243,842	100,620	100,620	-	-
Medical Training	75,259	89,901	97,792	7,891	8.78%
Personal Protection	198,574	162,345	164,345	2,000	1.23%
Recruitment/Hiring	56,893	168,916	168,916	-	-
Self Contained Breathing Apparatus	78,065	44,300	44,300	-	-
Small Equipment Maintenance	61,907	53,946	57,203	3,257	6.04%
Specialized Rescue	29,749	29,750	29,750	-	-
Support Services	119	-	-	-	-
Training Facility Operations	9,804	18,690	18,797	107	0.57%
Wellness	18,060	19,150	19,150	-	-
Wildland Fire Team	265,341	5,350	8,680	3,330	62.24%
Total Expenditures by Activity	\$ 16,215,460	\$ 17,899,489	\$ 18,720,107	\$ 820,618	4.58%

ACTIVITY DESCRIPTIONS

Emergency Response Operations are responsible for the direction of all firefighting, rescue, and emergency medical responses. Special response teams such as Hazardous Materials, Dive-Rescue, and Technical Rescue, are coordinated and supported by this division. The Division Chief sets duty schedules, assigns personnel, monitors calls and reports, and reviews personnel evaluations and pay adjustments. This division must insure that the firefighters have adequate protective gear and proper apparatus to combat fires, effectively perform rescue procedures, and provide advanced emergency medical care to victims of these circumstances.

Support Services are responsible for the receiving, usage, maintenance, storage, assignment of, and replacement of all fire apparatus, fire equipment, and other supplies. Maintenance of all equipment used in the department is managed by personnel in this division, including maintenance and testing of self-contained breathing apparatus, technical monitors or detectors and small engines. This division provides services to other departments within the City, such as filling air tanks for the Water Department and testing and repairing self-contained breathing apparatus for the Police, Water, and Public Works Departments.

Station maintenance is also directed and scheduled by the Division Chief along with supervising officers at each station. Maintenance work on stations is coordinated with Public Works personnel utilizing food tax funds where possible.

OPERATIONS

CONTINUED

Training within the Operations Division provides coordination, development, and/or delivery of all fire, rescue, emergency medical, and specialized response training. Members of the department are required to maintain certification as firefighters, fire instructors and fire officers, as well as Emergency Medical Technicians. The Training program is responsible for the development and management of the Advanced Life Support program within the department. It is also responsible for maintaining an effective fitness and safety program, which is a high priority within the department. This program manages the hiring and promotional processes for the department.

POLICE



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	208,616	146,350	272,583	126,233	86.25%
Fines & Forfeits	141,265	131,000	131,000	-	-
Intergovernmental Revenue	1,661,242	531,153	548,153	17,000	3.20%
Licenses & Permits	186,104	189,000	189,000	-	-
Miscellaneous Revenue	85,765	20,000	20,000	-	-
Transfers In	63,838	187,228	1,196,050	1,008,822	539%
Use of Fund Balance	28,367,634	30,533,730	32,234,346	1,700,616	5.57%
Total Resources	\$ 30,714,464	\$ 31,738,461	\$ 34,591,132	\$ 2,852,671	8.99%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	24,132,857	24,842,023	26,448,213	1,606,190	6.47%
Supplies & Services	6,395,729	6,829,210	7,968,369	1,139,159	16.68%
Capital	185,878	67,228	38,500	(28,728)	-42.73%
Transfers Out	-	-	136,050	136,050	-
Total Expenditures by Category	\$ 30,714,464	\$ 31,738,461	\$ 34,591,132	\$ 2,852,671	8.99%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	30,713,464	31,737,461	34,239,778	2,502,317	7.88%
143 - Community Memorials	1,000	1,000	1,000	-	-
512 - Fleet Replacement	-	-	136,050	136,050	-
513 - Equipment Replacement	-	-	214,304	214,304	-
Total Expenditures by Fund	\$ 30,714,464	\$ 31,738,461	\$ 34,591,132	\$ 2,852,671	8.99%

Expenditures by Division	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Operations	17,982,886	18,814,639	20,753,781	1,939,142	10.31%
Support Services	12,731,578	12,923,822	13,837,351	913,529	7.07%
Total Expenditures by Division	\$ 30,714,464	\$ 31,738,461	\$ 34,591,132	\$ 2,852,671	8.99%

POLICE

CONTINUED

GENERAL DESCRIPTION

The **Police** Department exists for the provision of law enforcement services within prescribed ethical and constitutional limitations in the most cost-effective manner. It is responsive to community priorities, and utilizes proactive policing strategies. The department's mission statement is "Proudly working with the citizens to protect our community". The department consists of two divisions: Operations and Services.

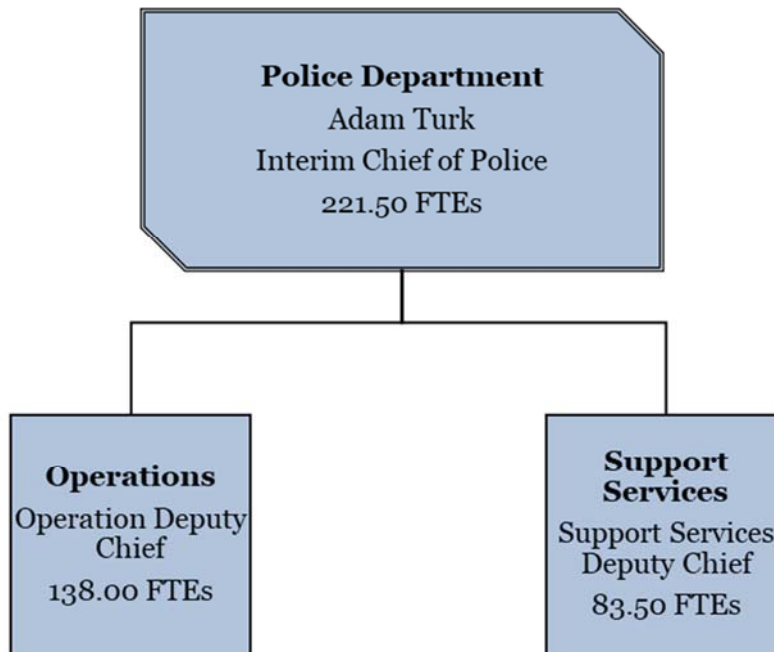
HOW THE DEPARTMENT IS ORGANIZED

The **Operations** division consists of the Patrol Section, the Traffic Enforcement Unit, the School Resource Officer Unit, the SWAT Team, the Bomb Unit, Neighborhood Action Team (NAT), the Animal Control Unit, the Special Enforcement Team, K-9 Unit, and School Crossing Guards. The Operations Division Deputy Chief serves as the department liaison to the Weld County Regional Communications Center. This division provides the majority of the crime prevention, community education programming, order maintenance, traffic enforcement and control, and general law enforcement services for the community.

The **Services** division contains the Office of Professional Standards/Public Information, the Investigations Section, the Victim Services Unit, the Weld County Drug Task Force, Training and Recruitment, The Police Range, the Property Unit, Evidence Unit and Records. This division provides recruitment and selection processes, personnel and training development, budget development, property management, case investigation, services to victims, evidence administration and storage, and maintaining criminal records and warrants.

Grants to Outside Agencies includes grants given to Life Stories, A Woman's Place, and The Humane Society.

ORGANIZATIONAL CHART



POLICE

CONTINUED

2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
TWO POLICE OFFICERS	POLICE	\$ 222,596
BODY WORN CAMERAS & TASERS	POLICE	205,457
WELD COUNTY DISPATCH COSTS	POLICE	167,068
FUNDING AGREEMENT FOR CO-RESPONDERS	POLICE	130,000
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 725,121

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
POLICE EQUIPMENT	POLICE	\$ 213,500
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 213,500

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
POLICE COMMANDER POSITION	POLICE	\$ 183,915
PATROL DRONE PROGRAM	POLICE	16,000
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 199,915

FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ONE POLICE VEHICLE	POLICE	\$ 55,000
TOTAL FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS		\$ 55,000

FTE STAFFING BY TYPE

	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Patrol				
Civilian	15.00	15.00	3.00	18.00
Sworn	118.00	117.00	3.00	120.00
Patrol Total	133.00	132.00	6.00	138.00
Support Services				
Civilian	47.50	48.50	(3.00)	45.50
Sworn	39.00	39.00	(1.00)	38.00
Support Services Total	86.50	87.50	(4.00)	83.50
Total Police	219.50	219.50	2.00	221.50

POLICE

CONTINUED

FTE SUMMARY

Police	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Patrol				
Animal Control Officer	4.00	4.00	-	4.00
Budget Analyst	1.00	1.00	-	1.00
Deputy Police Chief	1.00	1.00	-	1.00
Police Chief	1.00	1.00	-	1.00
Police Commander	4.00	4.00	-	4.00
Police Officer	96.00	95.00	2.00	97.00
Police Sergeant	17.00	17.00	-	17.00
Public Safety Technician	10.00	10.00	-	10.00
Senior Administrative Specialist	2.00	2.00	1.00	3.00
Total Patrol	136.00	135.00	3.00	138.00
Support Services				
Administrative Specialist I	1.00	1.00	-	1.00
Assistant Crime Lab Director	1.00	1.00	-	1.00
Assistant Records Manager	1.00	1.00	-	1.00
Crime Analyst	1.00	1.00	-	1.00
Data Processing Clerk	1.50	1.50	-	1.50
Deputy Police Chief	1.00	1.00	-	1.00
DNA Analyst	-	1.00	-	1.00
Fraud Investigations Specialist	1.00	1.00	-	1.00
Police Commander	2.00	2.00	-	2.00
Police Officer	29.00	29.00	-	29.00
Police Records Specialist	21.00	21.00	-	21.00
Police Records Supervisor	3.00	3.00	-	3.00
Police Sergeant	6.00	6.00	-	6.00
Property Evidence Technician	4.00	4.00	-	4.00
Property Evidence Technician Supervisor	1.00	1.00	-	1.00
Public Safety Technician	3.00	3.00	-	3.00
Records & Evidence Manager	1.00	1.00	-	1.00
Senior Administrative Specialist	3.00	3.00	(1.00)	2.00
Training Coordinator	1.00	1.00	-	1.00
Victim Services Coordinator	2.00	2.00	-	2.00
Total Support Services	83.50	84.50	(1.00)	83.50
Total Police	219.50	219.50	2.00	221.50

PERFORMANCE INDICATORS

- Reduce Part One crimes by 2%
- Exceed national Part One crime clearance rate
- Reduce the number of traffic accidents by 2%

OPERATIONS – PATROL

PURPOSE: To provide a safe environment for the citizens of Greeley through effective law enforcement, prevention and control of crime, maintenance of public order, and the safe, expeditious flow of traffic.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	73,850	70,350	196,583	126,233	179%
Fines & Forfeits	140,805	126,000	126,000	-	-
Intergovernmental Revenue	228,816	146,405	146,405	-	-
Licenses & Permits	181,411	189,000	189,000	-	-
Miscellaneous Revenue	913	-	-	-	-
Transfers In	-	-	1,076,050	1,076,050	-
Use of Fund Balance	17,357,091	18,282,884	19,019,743	736,859	4.03%
Total Resources	\$ 17,982,886	\$ 18,814,639	\$ 20,753,781	\$ 1,939,142	10.31%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	16,119,313	16,288,842	17,434,205	1,145,363	7.03%
Supplies & Services	1,863,573	2,525,797	3,145,026	619,229	24.52%
Capital	-	-	38,500	38,500	-
Transfers Out	-	-	136,050	136,050	-
Total Expenditures by Category	\$ 17,982,886	\$ 18,814,639	\$ 20,753,781	\$ 1,939,142	10.31%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	17,982,886	18,814,639	20,403,427	1,588,788	8.44%
512 - Fleet Replacement	-	-	136,050	136,050	-
513 - Equipment Replacement	-	-	214,304	214,304	-
Total Expenditures by Fund	\$ 17,982,886	\$ 18,814,639	\$ 20,753,781	\$ 1,939,142	10.31%

OPERATIONS - PATROL

CONTINUED

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Animal Control	307,521	323,442	341,889	18,447	5.70%
Bomb	6,443	8,800	21,700	12,900	147%
Crisis Negotiations	265	500	29,500	29,000	5,800%
Equipment Replacement Police	-	-	214,304	214,304	-
K-9	362,914	405,955	415,255	9,300	2.29%
Neighborhood Action Team	1,152,370	1,110,405	1,277,855	167,450	15.08%
Office of Chief of Police	1,566,235	1,597,113	1,731,715	134,602	8.43%
Old Hire Pension Liability	-	81,366	40,683	(40,683)	-50.00%
Patrol Commander	210,491	170,428	208,430	38,002	22.30%
Patrol Services	12,451,656	12,502,391	13,610,836	1,108,445	8.87%
Police Equipment	-	-	136,050	136,050	-
School Crossing Guards	56,563	82,809	85,286	2,477	2.99%
School Resource	657,491	652,560	805,225	152,665	23.39%
Special Enforcement Team	-	769,198	676,571	(92,627)	-12.04%
SWAT	55,387	56,175	170,000	113,825	203%
Traffic	1,155,552	1,053,497	988,482	(65,015)	-6.17%
Total Expenditures by Activity	\$ 17,982,886	\$ 18,814,639	\$ 20,753,781	\$ 1,939,142	10.31%

ACTIVITY DESCRIPTIONS

The **Patrol** section provides a 24-hour response capability to calls for service, investigates criminal incidents, enforces laws and ordinances, and maintains public order.

The **Traffic** Unit exists to reduce traffic accidents and injuries and to facilitate the safe and expeditious flow of vehicular and pedestrian traffic through the public's voluntary compliance with traffic regulations. The traffic unit does this through a combination of education and enforcement.

The **School Resource** program provides officers who are assigned to various schools. There is an officer assigned to each of the three major high schools and two additional officers who are assigned both junior high and elementary schools. The School Resource Unit also works with security staff at our charter and private schools. In addition to the education component, the officers are able to employ enforcement strategies as they become necessary both in the areas of criminal activity and traffic enforcement in the areas in and around the schools. Special projects include the teen police academy held in the summer months.

The **SWAT** (Special Weapons and Tactics) Team consists of specially trained officers chosen from all sections within the Police Department. The unit responds to barricaded suspect and hostage taking incidents and assists in the apprehension of dangerous fugitives.

The **Bomb** Team contains highly trained and skilled individuals from both the Greeley Police Department and Weld County Sheriff's Office who handle explosive and incendiary devices and their neutralization throughout Northeastern Colorado.

The **Neighborhood Action Team** (NAT) plans, implements, and evaluates community service programs directed at meeting community needs and improving communication between the Police Department and the community. Specific projects include crime prevention presentations and inspections, neighborhood mediation, Neighborhood Watch Programs, the Citizens Police Academy, the Santa Cops Program, and Business Watch. They work closely in conjunction with the City's Neighborhood Building Blocks program involving various other City departments and components of the City.

OPERATIONS - PATROL

CONTINUED

The **Animal Control** unit responds to calls regarding problems with domestic animals, collects and impounds stray animals, and enforces the animal control ordinances.

The **Special Enforcement Team** (SET) is a proactive unit that focuses on the apprehension of high risk offenders, warrant services and career criminals. They also serve as an additional resource to provide targeted enforcement when crime, traffic, or quality of life issues emerge in a specific geographic area of the community. The Special Enforcement Team works with several outside agencies including agencies at the local, state and federal levels.

The **K-9** unit is trained to sniff out drugs and apprehend suspects. The K-9 unit also participates in community demonstrations and presentations.

The **Communications** section is for the City of Greeley's share of emergency dispatch services provided by Weld County and the services necessary to maintain department radios.

The School **Crossing Guard** program is composed of seasonal employees who assist children at school crosswalks during the school year.

GRANTS TO OUTSIDE AGENCIES

Life Stories is a child-friendly environment for coordinated law enforcement investigations, including a site for interviews of children who may be victims of child abuse and to provide assistance in communication with witnesses and victim's families.

A Woman's Place is a shelter and counseling program for battered women and their children.

Humane Society – This is the City's contribution for kennel services for companion animals delivered by City police department or Greeley residents.

SUPPORT SERVICES

PURPOSE: The division provides necessary administrative and support services to the department as well as balanced community services to the citizens in order to accomplish the overall goals of both the community and the department.

Resources	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Charges for Services	134,766	76,000	76,000	-	-
Fines & Forfeits	460	5,000	5,000	-	-
Intergovernmental Revenue	1,432,426	384,748	401,748	17,000	4.42%
Licenses & Permits	4,693	-	-	-	-
Miscellaneous Revenue	84,852	20,000	20,000	-	-
Transfers In	63,838	187,228	120,000	(67,228)	-35.91%
Use of Fund Balance	11,010,543	12,250,846	13,214,603	963,757	7.87%
Total Resources	\$ 12,731,578	\$ 12,923,822	\$ 13,837,351	\$ 913,529	7.07%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	8,013,544	8,553,181	9,014,008	460,827	5.39%
Supplies & Services	4,532,156	4,303,413	4,823,343	519,930	12.08%
Capital	185,878	67,228	-	(67,228)	-100%
Total Expenditures by Category	\$ 12,731,578	\$ 12,923,822	\$ 13,837,351	\$ 913,529	7.07%

Expenditures by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
100 - General	12,730,578	12,922,822	13,836,351	913,529	7.07%
143 - Community Memorials	1,000	1,000	1,000	-	-
Total Expenditures by Fund	\$ 12,731,578	\$ 12,923,822	\$ 13,837,351	\$ 913,529	7.07%

SUPPORT SERVICES

CONTINUED

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Communications	760,656	774,300	941,668	167,368	21.62%
Custody Contract	671	5,000	5,000	-	-
Evidence	457,951	482,053	484,404	2,351	0.49%
Honor Guard	330	2,750	3,750	1,000	36.36%
Investigations	3,513,051	3,384,596	3,525,834	141,238	4.17%
Joint Crime Lab	424,230	488,428	497,686	9,258	1.90%
Liquor Enforcement	130	300	300	-	-
Longworth Fund	1,000	1,000	1,000	-	-
Major Crime Scene	5,900	11,500	6,250	(5,250)	-45.65%
Police Grants	156,431	30,000	38,500	8,500	28.33%
Police Operations	63,838	67,228	-	(67,228)	-100%
Police Range	65,136	75,200	77,947	2,747	3.65%
Property	1,909,043	1,903,042	1,764,815	(138,227)	-7.26%
Records & Identification	2,288,718	2,576,109	2,969,904	393,795	15.29%
Recruitment	35,299	81,500	91,750	10,250	12.58%
Support Services Commander	230,711	440,824	492,500	51,676	11.72%
TECH Unit	277,068	478,780	694,445	215,665	45.04%
Training - Services	532,971	533,263	559,128	25,865	4.85%
Victim Services	277,007	231,972	260,812	28,840	12.43%
Weld Drug Task Force	1,731,438	1,355,977	1,421,658	65,681	4.84%
Total Expenditures by Activity	\$ 12,731,578	\$ 12,923,822	\$ 13,837,351	\$ 913,529	7.07%

ACTIVITY DESCRIPTIONS

The **Support Services Deputy Chief** is responsible for assisting with preparing and administering the annual budget, coordinating long-range fiscal planning, maintaining records of purchases and service contracts, and providing audit accountability for agency expenditures. The Professional Standards/Public Information Unit reports to the Support Services Deputy Chief and is responsible for the control of complaint investigations against department members, both sworn and non-sworn. This unit also performs inspections, witnesses the destruction of illegal contraband, and performs periodic audits of all departmental cash accounts. The Public Information Officer also keeps community members informed on current events, via press releases and social media updates.

The **Office of Chief of Police** reports to the City Manager and is the department head. The Police Chief is responsible for the leadership of the department. The financial unit also reports directly to the Chief, and is responsible for accounts payable, accounts receivable, payroll, budget control, and officer equipment inventory. Additionally, the unit manages state, federal, local and private grants.

The **Investigations** Section is responsible for major investigations utilizing specialists which enable the patrol officers to remain on their assigned beats. The Investigations section is broken down into three distinctive work groups, Persons Unit, Property Unit, and the Gang Unit. Each individual unit is directly supervised by a Sergeant of the Greeley Police Department. Each unit is responsible for conducting felony criminal investigations within their area of expertise. The Investigation section also oversees Greeley Detectives assigned to the regional lab as well as the Sex Offender Management Unit.

SUPPORT SERVICES

CONTINUED

The **Joint Crime Lab** provides forensic services to the Weld County Sheriff's Office and the Greeley Police Department as well as the Loveland Police Department, the Fort Collins Police Department, and the Larimer County Sheriff's Office. These services typically include crime scene investigation, fingerprint comparison, digital evidence collection and analysis, DNA analysis, and chemical analysis services.

The **Victims Services** and Assistance staff consists of volunteers and two Victim Services Coordinators whose salaries are partially funded by grants. The unit is charged with providing support and referral services to victims of crimes. Once victims have been identified, victim services personnel follow-up to ensure that needed assistance is provided. Services range from immediate response to the scene by a victim advocate to a next day phone call, depending on the nature of the crime or victim needs.

The **Weld Drug Task Force** program is a countywide multi-agency operation that was created to impact illegal drug trafficking in Weld County. Resources and funding for the operation are derived from a number of supporting police agencies throughout the county and a grant from the Office of National Drug Control Policy – High Intensity Drug Trafficking Area. Task Force personnel on permanent assignment are derived from the Greeley Police Department, Weld County Sheriff's Office and the Evans Police Department. The Task Force is under the command of a Greeley Police Commander and reports to the Services Division Deputy Chief.

The **Training and Recruitment** units are responsible for the coordination of recruit and officer in-service, supervisory, managerial, firearms, and all other specialized training for department members. These units also administer the career development program, the higher education reimbursement program, and maintain the Police Department library, personnel files, and training records for all department members.

The **Police Range** is a specially equipped firing range for sworn police officers to conduct marksmanship training. The range is used by several area agencies who pay an hourly rate to use the facility.

The **Property** unit responsibilities include the storage of department equipment and supplies. The unit is also responsible for the purchase of department equipment and maintenance of the police credit card system.

The **Evidence** unit's responsibilities include the storage and security of evidence and recovered property, the coordination of laboratory analysis of evidence, and the release or destruction of evidence or other property as prescribed by applicable statutes or ordinances.

The **Records** section annually receives, transcribes, reviews and maintains approximately 43,000 criminal justice reports prepared by Greeley Police Department personnel. The maintenance of these reports includes quality assurance reviews to ensure that the coding adheres to the National Incident Based Reporting System (NIBRS) requirements, and subsequently submitting this data at the state and federal levels. Dissemination of these criminal justice records is made to the public as well as other criminal justice agencies. The section also receives, enters and forwards approximately 21,500 citations that were issued by the Greeley Police Department and the University of Northern Colorado Police Services, as well as receives, enters and annually maintains 570 warrants that are issued by Greeley Municipal Court. Records personnel make entries into the National and Colorado Crime Information Computers, insuring law enforcement throughout the country have appropriate information on criminal events reported in Greeley (missing persons, stolen cars, stolen property, etc.).

The **Longworth Fund** provides annual police scholarships for college.

Custody Contract is the costs for prisoners charged to the City from the County Jail.

PUBLIC WORKS



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	14,424,937	15,252,449	16,449,187	1,196,738	7.85%
Fines & Forfeits	67,207	175,000	175,000	-	-
Intergovernmental Revenue	8,263,346	11,555,067	7,279,313	(4,275,754)	-37.00%
Licenses & Permits	15,012	15,590	15,590	-	-
Taxes	805,065	794,000	809,680	15,680	1.97%
Miscellaneous Revenue	1,302,338	1,070,162	1,082,378	12,216	1.14%
Bond Proceeds	-	-	17,000,000	17,000,000	-
Transfers In	3,515,662	4,764,203	5,395,127	630,924	13.24%
Use of Fund Balance	296,090	7,499,045	4,969,648	(2,529,397)	-33.73%
Total Resources	\$ 28,689,657	\$ 41,125,516	\$ 53,175,923	\$ 12,050,407	29.30%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	12,803,476	13,938,285	15,136,962	1,198,677	8.60%
Supplies & Services	10,079,055	11,853,410	12,374,879	521,469	4.40%
Capital	4,072,483	13,671,886	23,493,486	9,821,600	71.84%
Debt	662,739	686,299	685,798	(501)	-0.07%
Transfers Out	1,071,905	975,636	1,484,798	509,162	52.19%
Total Expenditures by Category	\$ 28,689,657	\$ 41,125,516	\$ 53,175,923	\$ 12,050,407	29.30%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	8,200,949	15,073,730	10,808,037	(4,265,693)	-28.30%
104 - Streets & Roads	9,809,126	10,748,801	11,519,068	770,267	7.17%
121 - Public Safety .16%	559,342	424,529	453,383	28,854	6.80%
402 - Downtown Parking	182,781	324,968	329,340	4,372	1.35%
431 - Stormwater	2,485,053	2,840,820	3,445,598	604,778	21.29%
432 - Stormwater Construction	1,234,483	2,307,252	16,919,573	14,612,321	633%
433 - Stormwater Replacement	1,128,521	2,872,361	2,658,809	(213,552)	-7.43%
434 - Stormwater Debt Service	524,263	548,550	548,050	(500)	-0.09%
511 - Equipment Maintenance	2,466,109	2,938,797	3,051,946	113,149	3.85%
512 - Fleet Replacement	2,099,032	3,045,708	3,394,162	348,454	11.44%
513 - Equipment Replacement	-	-	47,957	47,957	-
Total Expenditures by Fund	\$ 28,689,657	\$ 41,125,516	\$ 53,175,923	\$ 12,050,407	29.30%

PUBLIC WORKS

CONTINUED

Expenditures by Division	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Administration	1,444,462	1,500,136	1,668,501	168,365	11.22%
Engineering	923,158	1,214,519	1,138,386	(76,133)	-6.27%
Equipment Maintenance	2,466,109	2,938,797	3,051,946	113,149	3.85%
Equipment Replacment	-	-	47,957	47,957	-
Facilities Management	3,419,334	3,618,475	4,019,148	400,673	11.07%
Financial Services	33,271	69,353	70,055	702	1.01%
Fleet Replacement	2,099,032	3,045,708	3,394,162	348,454	11.44%
Parking	149,509	255,615	259,285	3,670	1.44%
Stormwater	5,372,319	8,568,983	23,572,030	15,003,047	175%
Street Maintenance	3,672,924	4,043,376	4,572,185	528,809	13.08%
Transit Services	5,333,957	11,872,784	7,235,272	(4,637,512)	-39.06%
Transportation Services	3,775,581	3,997,770	4,146,996	149,226	3.73%
Total Expenditures by Division	\$ 28,689,657	\$ 41,125,516	\$ 53,175,923	\$ 12,050,407	29.30%

GENERAL DESCRIPTION

The mission of the **Public Works** Department is to provide for the design, construction, operation, maintenance and protection of the City's infrastructure that is critical to the safe and efficient movement of pedestrians, traffic, goods, and emergency services.

HOW THE DEPARTMENT IS ORGANIZED

The Public Works Director reports to the City Manager and is the head of the department.

The **Administration** division consists of the Director and support staff providing for the planning, directing, coordinating, budget oversight and reporting of all service programs within the department.

The **Engineering** division plans, designs, and supervises the construction of special projects and Capital Improvements Program projects, as well as the orderly development review and quality management of work within the public right-of-way.

The **Equipment Maintenance** division is responsible for the procurement, repair and maintenance of much of the City's fleet of vehicles and equipment. The division also is responsible for the provision of fuel and fuel tank testing.

The **Facilities Management** division repairs, maintains, and cleans City buildings and facilities. The division also performs remodeling, energy management, and retrofitting of facilities, as well as preventive maintenance on heating, ventilating, and air conditioning equipment.

The **Fleet Replacement** division tracks the procurement of the City's vehicles and equipment.

The **Street Maintenance** division cleans and repairs city streets, controls snow and ice on streets for safe travel, maintains and repairs public drainage facilities, and controls weeds in the public rights-of-way and on City property.

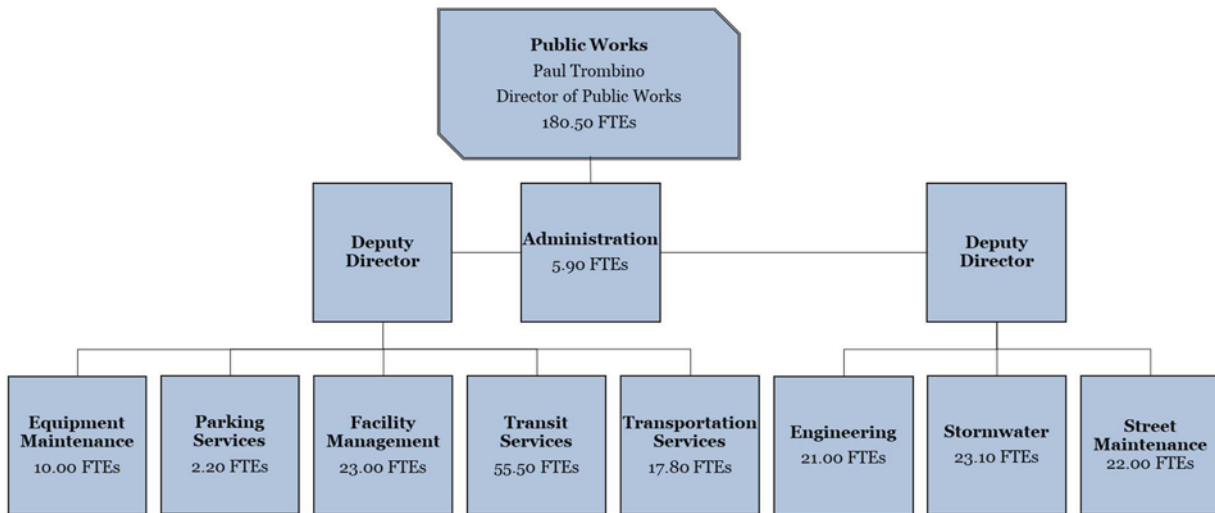
The **Transit Services** division operates a public transit system for the citizens of Greeley by providing fixed, demand response and paratransit services.

The **Transportation Services** division plans traffic flow, installs and maintains traffic control devices such as signs, traffic signals and street markings, and provides for the coordination of traffic signals and street lights for improved safety.

PUBLIC WORKS

CONTINUED

ORGANIZATIONAL CHART



2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
EQUIPMENT MAINTENANCE MECHANIC	PUBLICWORKS	\$ 90,549
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 90,549

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
BESTWAY PROPERTY COLD-MIX STORAGE FABRIC COVER	PUBLICWORKS	\$ 35,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 35,000

PUBLIC WORKS

CONTINUED

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
EQUIPMENT MAINTENANCE POSITION	PUBLICWORKS	\$ 115,590
ASSET COORDINATOR	PUBLICWORKS	115,080
FLEET CERTIFICATION PAY	PUBLICWORKS	61,360
PARKING SERVICE SUPERVISOR CONVERSION	PUBLICWORKS	28,936
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 320,966

UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
REPLACEMENT OF FLEET MANAGEMENT INFORMATION SYSTEM	PUBLICWORKS	\$ 400,000
FACLITIES ASSET MANAGEMENT POLICY & MIGRATION TO CITYWORKS	PUBLICWORKS	285,000
TRAFFIC INFRASTRUCTURE ASSET MANAGEMENT PLAN	PUBLICWORKS	225,000
TOTAL UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 910,000

FUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
WATER QUALITY & REGULATORY COMPLIANCE MANAGER	PUBLICWORKS	\$ 132,399
ENGINEERING CONCRETE TECHNICIAN	PUBLICWORKS	131,752
TOTAL FUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 264,151

UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
CITYWIDE SIDEWALK EVALUATION	PUBLICWORKS	\$ 325,000
TOTAL UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 325,000

PUBLIC WORKS

CONTINUED

FTE SUMMARY

Public Works	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Administration				
Budget Analyst	0.90	0.90	-	0.90
Budget Technician	-	1.00	-	1.00
Deputy Public Works Director	1.00	2.00	-	2.00
Public Works Director	1.00	1.00	-	1.00
Senior Administrative Specialist	-	1.00	-	1.00
Total Administration	2.90	5.90	-	5.90
Engineering				
Administrative Specialist II	1.00	1.00	-	1.00
Asset Manager	-	1.00	-	1.00
Asset Specialist	-	1.00	-	1.00
Assistant City Engineer	-	1.00	-	1.00
Capital Projects Planner	-	1.00	-	1.00
City Engineer	1.00	1.00	-	1.00
Civil Engineer II	-	1.00	-	1.00
Civil Engineer III	4.00	2.00	-	2.00
Civil Engineer IV	-	1.00	-	1.00
Concrete Maintenance Coordinator	1.00	1.00	-	1.00
Engineering Project Manager	1.00	1.00	-	1.00
Engineering Technician	6.00	6.00	1.00	7.00
Pavement Management Coordinator	1.00	1.00	-	1.00
Senior Land Surveyor	1.00	-	-	-
Senior Survey Technician	1.00	-	-	-
Utility Coordinator	1.00	1.00	-	1.00
Total Engineering	18.00	20.00	1.00	21.00
Equipment Maintenance				
Administrative Specialist II	1.00	1.00	-	1.00
Equipment Maintenance Coordinator	-	1.00	-	1.00
Equipment Maintenance Foreman	1.00	1.00	-	1.00
Equipment Maintenance Mechanic	5.00	5.00	1.00	6.00
Fleet Manager	1.00	1.00	-	1.00
Fleet Specialist	1.00	-	-	-
Total Equipment Maintenance	9.00	9.00	1.00	10.00

PUBLIC WORKS

CONTINUED

FTE SUMMARY (CONTINUED)

Public Works	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Facilities Management				
Administrative Specialist II	1.00	1.00	-	1.00
Facilities Management Technician II	1.00	3.00	-	3.00
Facilities Management Technician III	5.00	3.00	-	3.00
Facilities Project Manager	1.00	2.00	-	2.00
Facility Maintenance Supervisor	-	1.00	-	1.00
Facility Manager	1.00	1.00	-	1.00
Facility Service Supervisor I	2.00	1.00	-	1.00
Facility Service Worker	8.00	8.00	-	8.00
Mechanical Controls Technician	3.00	3.00	-	3.00
Project Coordinator	1.00	-	-	-
Total Facilities Management	23.00	23.00	-	23.00
Parking				
Senior Administrative Specialist	-	0.20	-	0.20
Parking Ambassador	2.00	2.00	-	2.00
Total Parking	2.00	2.20	-	2.20
Street Maintenance				
Crew Supervisor: Streets	2.00	2.00	-	2.00
Equipment Operator I	9.00	8.00	(1.00)	7.00
Equipment Operator II	8.00	9.00	1.00	10.00
Graffiti Removal Technician	1.00	1.00	-	1.00
Senior Administrative Specialist	1.00	1.00	-	1.00
Streets Superintendent	1.00	1.00	-	1.00
Total Street Maintenance	22.00	22.00	-	22.00
Transit Services				
Administrative Specialist II	1.00	1.00	-	1.00
Bus Operator I	35.50	26.75	-	26.75
Bus Operator II	-	8.75	-	8.75
Bus Mechanic	1.00	-	-	-
Clerical Assistant	1.00	1.00	-	1.00
Electronic Technician	-	1.00	-	1.00
Equipment Maintenance Foreman	1.00	1.00	-	1.00
Equipment Maintenance Mechanic	4.00	4.00	-	4.00
Fleet Specialist	1.00	1.00	-	1.00
Maintenance Service Attendant	1.00	2.00	-	2.00
Maintenance Service Specialist	1.00	-	-	-
Route Supervisor	3.00	3.00	-	3.00
Transit Manager	1.00	1.00	-	1.00
Transit Operations Supervisor	1.00	1.00	-	1.00
Transit Specialist	1.00	1.00	-	1.00
Transportation Dispatcher	3.00	3.00	-	3.00
Total Transit Services	55.50	55.50	-	55.50

PUBLIC WORKS

CONTINUED

FTE SUMMARY (CONTINUED)

Public Works	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Transportation Services				
Administrative Specialist II	1.00	-	-	-
Senior Administrative Specialist	-	0.80	-	0.80
Project Coordinator	1.00	1.00	-	1.00
Senior Traffic Signal Technician	1.00	1.00	-	1.00
Signs & Markings Supervisor	1.00	1.00	-	1.00
Signs & Markings Technician	4.00	4.00	-	4.00
Traffic Engineer	1.00	1.00	-	1.00
Traffic Engineering Technician	1.00	1.00	-	1.00
Traffic Engineering Technician II	1.00	1.00	-	1.00
Traffic Operations Supervisor	1.00	1.00	-	1.00
Traffic Signal Supervisor	1.00	1.00	-	1.00
Traffic Signal Technician	3.00	4.00	-	4.00
Transportation Planner	1.00	1.00	-	1.00
Total Transportation Services	17.00	17.80	-	17.80
Stormwater				
Asset Manager	1.00	1.00	-	1.00
Budget Analyst	0.10	0.10	-	0.10
Civil Engineer II	-	1.00	-	1.00
Civil Engineer III	-	2.00	-	2.00
Civil Engineer IV	3.00	-	-	-
Crew Supervisor: Streets	1.00	1.00	-	1.00
Engineering Technician	1.00	1.00	-	1.00
Environmental Technician	2.00	2.00	-	2.00
Equipment Operator I	4.00	6.00	-	6.00
Equipment Operator II	4.00	4.00	-	4.00
Stormwater Manager	1.00	1.00	-	1.00
Stormwater Quality Administrator	1.00	1.00	-	1.00
Stormwater Technician	1.00	1.00	-	1.00
Water Quality & Regulatory Compliance Manager	-	-	1.00	1.00
Utility Locator	1.00	1.00	-	1.00
Total Stormwater	20.10	22.10	1.00	23.10
Total Public Works	169.50	177.50	3.00	180.50

PERFORMANCE INDICATORS

- Number of Potholes Filled
- Pavement Quality Index
- Fixed Route Transit Riders per Hour

ADMINISTRATION

PURPOSE: To provide administrative support to the entire department.

Resources	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Intergovernmental Revenue	335,070	160,400	160,400	-	-
Taxes	96,608	85,680	85,680	-	-
Miscellaneous Revenue	1,178	3,534	3,534	-	-
Transfers In	3,073,583	4,290,284	4,859,807	569,523	13.27%
Use of Fund Balance	(2,061,977)	(3,039,762)	(3,440,920)	(401,158)	13.20%
Total Resources	\$ 1,444,462	\$ 1,500,136	\$ 1,668,501	\$ 168,365	11.22%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	480,942	653,261	895,966	242,705	37.15%
Supplies & Services	963,521	846,875	772,535	(74,340)	-8.78%
Total Expenditures by Category	\$ 1,444,462	\$ 1,500,136	\$ 1,668,501	\$ 168,365	11.22%

Expenditures by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
100 - General	7,000	7,000	7,000	-	-
104 - Streets & Roads	1,437,462	1,493,136	1,661,501	168,365	11.28%
Total Expenditures by Fund	\$ 1,444,462	\$ 1,500,136	\$ 1,668,501	\$ 168,365	11.22%

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Administration	1,437,462	1,493,136	1,661,501	168,365	11.28%
Envision	7,000	7,000	7,000	-	-
Total Expenditures by Activity	\$ 1,444,462	\$ 1,500,136	\$ 1,668,501	\$ 168,365	11.22%

ACTIVITY DESCRIPTIONS

Envision – is a grant given by the City of Greeley to assist Envision, an outside agency, who serves approximately 1,800 individuals that have a qualifying intellectual and/or developmental disability or delay.

Administration's main emphasis is working with the departmental budget and payroll. The administrative staff also provides administrative support to other divisions within the department and is responsible for other duties as assigned.

ENGINEERING

PURPOSE: To provide orderly construction of new street infrastructure via new land development, proper evaluation/repair of the city's existing street infrastructure system, and the design, construction, inspection and quality assurance of new transportation related capital improvement projects.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	885,121	738,850	738,850	-	-
Intergovernmental Revenue	355,386	374,000	374,000	-	-
Licenses & Permits	5,701	7,590	7,590	-	-
Miscellaneous Revenue	1	-	-	-	-
Use of Fund Balance	(323,050)	94,079	17,946	(76,133)	-80.92%
Total Resources	\$ 923,158	\$ 1,214,519	\$ 1,138,386	(\$ 76,133)	-6.27%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	783,582	1,127,968	1,059,372	(68,596)	-6.08%
Supplies & Services	139,576	86,551	79,014	(7,537)	-8.71%
Total Expenditures by Category	\$ 923,158	\$ 1,214,519	\$ 1,138,386	(\$ 76,133)	-6.27%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
104 - Streets & Roads	923,158	1,214,519	1,138,386	(76,133)	-6.27%
Total Expenditures by Fund	\$ 923,158	\$ 1,214,519	\$ 1,138,386	(\$ 76,133)	-6.27%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Engineering Services	923,158	1,214,519	1,138,386	(76,133)	-6.27%
Total Expenditures by Activity	\$ 923,158	\$ 1,214,519	\$ 1,138,386	(\$ 76,133)	-6.27%

ACTIVITY DESCRIPTION

Engineering Services provides for the design and construction management of Public Works transportation projects and other city projects as requested. Services also include administration of permits, ordinance enforcement, mapping, infrastructure records, subdivision records, and special improvement districts.

EQUIPMENT MAINTENANCE

PURPOSE: To provide maintenance and repair of vehicles and equipment in an efficient and cost effective manner.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,408,196	2,940,176	2,973,729	33,553	1.14%
Intergovernmental Revenue	32,814	-	-	-	-
Miscellaneous Revenue	27,730	22,949	22,949	-	-
Use of Fund Balance	(2,631)	(24,328)	55,268	79,596	-327%
Total Resources	\$ 2,466,109	\$ 2,938,797	\$ 3,051,946	\$ 113,149	3.85%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	766,000	791,063	923,942	132,879	16.80%
Supplies & Services	1,700,109	2,126,259	2,118,024	(8,235)	-0.39%
Capital	-	21,475	9,980	(11,495)	-53.53%
Total Expenditures by Category	\$ 2,466,109	\$ 2,938,797	\$ 3,051,946	\$ 113,149	3.85%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
511 - Equipment Maintenance	2,466,109	2,938,797	3,051,946	113,149	3.85%
Total Expenditures by Fund	\$ 2,466,109	\$ 2,938,797	\$ 3,051,946	\$ 113,149	3.85%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Central Fleet Operations	2,183,275	2,647,302	2,664,281	16,979	0.64%
Fire Mechanic/Operations	280,510	271,993	368,144	96,151	35.35%
Investment Earnings	1,214	-	-	-	-
Motor Pool	687	4,002	4,021	19	0.47%
VANGO	423	15,500	15,500	-	-
Total Expenditures by Activity	\$ 2,466,109	\$ 2,938,797	\$ 3,051,946	\$ 113,149	3.85%

ACTIVITY DESCRIPTIONS

Administration, Operations, and Sublet provide for regularly scheduled prevention maintenance repair for the central fleet and equipment.

The Central fleet maintains **VanGo** carpool vans through an agreement with the North Front Range Metropolitan Organization.

Central Fleet Operations oversees the city fleet and includes several activities. They purchase vehicles and equipment that is then leased to various departments. They also provide for the maintenance of all vehicle and licensing of all over the road vehicles. This area also oversees the fuel programs that provides for the City's fleet fueling needs by maintaining supplies of fuel in seven City owned storage tanks and administering an intergovernmental agreement with Weld County for use of their fuel facility, in addition to remote site fueling with outside vendors.

EQUIPMENT MAINTENANCE

CONTINUED

The **Motor Pool** was created to have vehicles that are not assigned to a department that can be used by City employees rather than using a personal or department vehicle.

The **Fire Mechanic/Operations** is separated out to identify maintenance provided for the Fire Department vehicles.

FACILITIES MANAGEMENT/SERVICES

PURPOSE: To provide, manage, and maintain a safe and clean working environment in the city owned facilities through economical and effective service based programs.

Resources	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Charges for Services	52,941	46,000	46,000	-	-
Miscellaneous Revenue	194,902	117,680	129,740	12,060	10.25%
Transfers In	442,078	448,919	485,320	36,401	8.11%
Use of Fund Balance	2,729,412	3,005,876	3,358,088	352,212	11.72%
Total Resources	\$ 3,419,334	\$ 3,618,475	\$ 4,019,148	\$ 400,673	11.07%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	1,250,675	1,816,913	1,904,481	87,568	4.82%
Supplies & Services	1,624,361	1,303,383	1,596,634	293,251	22.50%
Capital	-	73,650	73,650	-	-
Transfers Out	544,297	424,529	444,383	19,854	4.68%
Total Expenditures by Category	\$ 3,419,334	\$ 3,618,475	\$ 4,019,148	\$ 400,673	11.07%

Expenditures by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
100 - General	2,859,992	3,193,946	3,565,765	371,819	11.64%
121 - Public Safety .16%	559,342	424,529	453,383	28,854	6.80%
Total Expenditures by Fund	\$ 3,419,334	\$ 3,618,475	\$ 4,019,148	\$ 400,673	11.07%

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Custodial	519,732	437,347	449,694	12,347	2.82%
Custodial/Police	128,832	181,833	185,977	4,144	2.28%
Information Technology Charges	138,624	138,624	305,032	166,408	120%
Maintenance	1,356,084	1,760,981	1,838,459	77,478	4.40%
Maintenance/Police	715,228	624,730	654,207	29,477	4.72%
Other Utilities	560,834	474,960	585,779	110,819	23.33%
Total Expenditures by Activity	\$ 3,419,334	\$ 3,618,475	\$ 4,019,148	\$ 400,673	11.07%

ACTIVITY DESCRIPTIONS

Custodial services are provided for in the following facilities: City Hall, City Hall Annex, Public Works, Police Headquarters and the Service Center.

FACILITIES MANAGEMENT/SERVICES

CONTINUED

The **Facility Maintenance** division provides the major and minor maintenance and remodeling of the following City facilities and others as requested along with management for these projects: City Hall, City Hall Annex, Public Works, Police Headquarters, Recreation Center, Senior Center, Union Colony Civic Center, Service Center, Streets, two swimming pools, two splash parks, Rodarte Center, Cemetery, Golf facilities, seven fire stations, Museum, Ice Haus, Family FunPlex, and other miscellaneous smaller facilities.

Utilities track the usage of electricity, water, sewer and natural gas for City Hall, City Hall Annex, and Public Works.

FLEET REPLACEMENT

PURPOSE: To purchase replacement and new equipment for the City departments.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	2,914,785	2,669,343	2,616,044	(53,299)	-2.00%
Miscellaneous Revenue	185,263	80,000	80,000	-	-
Use of Fund Balance	(1,001,017)	296,365	698,118	401,753	136%
Total Resources	\$ 2,099,032	\$ 3,045,708	\$ 3,394,162	\$ 348,454	11.44%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Supplies & Services	65,788	329,563	1,500	(328,063)	-100%
Capital	1,894,495	2,577,396	3,203,914	626,518	24.31%
Debt	138,749	138,749	138,748	(1)	0.00%
Transfers Out	-	-	50,000	50,000	-
Total Expenditures by Category	\$ 2,099,032	\$ 3,045,708	\$ 3,394,162	\$ 348,454	11.44%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
512 - Fleet Replacement	2,099,032	3,045,708	3,394,162	348,454	11.44%
Total Expenditures by Fund	\$ 2,099,032	\$ 3,045,708	\$ 3,394,162	\$ 348,454	11.44%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
2016 Bancorp Loan	68,252	68,252	68,252	-	-
2017 Signature Public	70,497	70,497	70,496	(1)	0.00%
City Fleet	1,958,369	2,905,459	3,203,914	298,455	10.27%
Investment Earnings	1,914	1,500	1,500	-	-
Public Works Equipment	-	-	50,000	50,000	-
Total Expenditures by Activity	\$ 2,099,032	\$ 3,045,708	\$ 3,394,162	\$ 348,454	11.44%

ACTIVITY DESCRIPTIONS

The **City Fleet** reflects the purchase of vehicles and equipment for various departments.

Leases reflect the vehicles and equipment that are leased to various departments.

PARKING SERVICES

PURPOSE: To administer the parking permits, citations and assist in removal of abandoned or illegally parked vehicles.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Fines & Forfeits	66,387	175,000	175,000	-	-
Intergovernmental Revenue	10,986	-	-	-	-
Miscellaneous Revenue	24,003	38,000	38,000	-	-
Use of Fund Balance	48,133	42,615	46,285	3,670	8.61%
Total Resources	\$ 149,509	\$ 255,615	\$ 259,285	\$ 3,670	1.44%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	119,534	142,433	145,743	3,310	2.32%
Supplies & Services	29,976	113,182	113,542	360	0.32%
Total Expenditures by Category	\$ 149,509	\$ 255,615	\$ 259,285	\$ 3,670	1.44%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
402 - Downtown Parking	149,509	255,615	259,285	3,670	1.44%
Total Expenditures by Fund	\$ 149,509	\$ 255,615	\$ 259,285	\$ 3,670	1.44%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Issue Tickets	149,509	255,615	259,285	3,670	1.44%
Total Expenditures by Activity	\$ 149,509	\$ 255,615	\$ 259,285	\$ 3,670	1.44%

GENERAL DESCRIPTION

The **Parking Permits** staff enforces City parking ordinances through the issuance of parking citations to violators. In addition, the unit also assists with removal of abandoned or illegally parked vehicles.

STORMWATER

PURPOSE: To administer the stormwater utility, plan design and manage the construction of capital improvement projects to solve stormwater problems throughout the City. To educate citizens about stormwater issues and improve the environmental quality of city stormwater discharges.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	7,064,177	7,119,742	8,256,266	1,136,524	15.96%
Intergovernmental Revenue	18,326	300	300	-	-
Licenses & Permits	4,725	-	-	-	-
Miscellaneous Revenue	85,456	58,165	58,321	156	0.27%
Bond Proceeds	-	-	17,000,000	17,000,000	-
Use of Fund Balance	(1,800,365)	1,390,776	(1,742,857)	(3,133,633)	-225%
Total Resources	\$ 5,372,319	\$ 8,568,983	\$ 23,572,030	\$ 15,003,047	175%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,906,938	1,892,205	2,115,192	222,987	11.78%
Supplies & Services	383,554	680,506	761,388	80,882	11.89%
Capital	2,030,230	4,897,615	19,157,985	14,260,370	291%
Debt	523,989	547,550	547,050	(500)	-0.09%
Transfers Out	527,607	551,107	990,415	439,308	79.71%
Total Expenditures by Category	\$ 5,372,319	\$ 8,568,983	\$ 23,572,030	\$ 15,003,047	175%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
431 - Stormwater	2,485,053	2,840,820	3,445,598	604,778	21.29%
Capital Improvement Plan Management	707,315	721,428	788,988	67,560	9.365%
Investment Earnings	42,128	-	-	-	0.00%
Operating Transfers	250,537	272,605	573,591	300,986	110.41%
Stormwater Asset Management	112,864	192,220	196,842	4,622	2.40%
Stormwater Maintenance	767,524	850,551	957,610	107,059	12.59%
Stormwater Services	96,243	96,243	146,663	50,420	52.39%
Street Sweeping	211,113	358,259	290,430	(67,829)	-18.93%
Water Quality Program	297,329	349,514	491,474	141,960	40.62%
432 - Stormwater Construction	1,234,483	2,307,252	16,919,573	14,612,321	633%
433 - Stormwater Replacement	1,128,521	2,872,361	2,658,809	(213,552)	-7.43%
434 - Stormwater Debt Service	524,263	548,550	548,050	(500)	-0.09%
Total Expenditures by Fund	\$ 5,372,319	\$ 8,568,983	\$ 23,572,030	\$ 15,003,047	175%

STORMWATER

CONTINUED

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
2015 Stormwater Bonds	523,989	548,550	548,050	(500)	-0.09%
A.M.P. - Asset Management Projects	-	500,000	515,000	15,000	3.00%
Annual Neighborhood Improvements	25,508	430,102	-	(430,102)	-100%
Capital Improvement Plan Management	707,315	721,428	788,988	67,560	9.36%
Capital Outlay	808,090	1,348,430	772,096	(576,334)	-42.74%
Downtown Improvements	50,000	84,568	-	(84,568)	-100%
Downtown Master Plan	686,750	1,146,299	11,606,272	10,459,973	913%
Improve To Detention Pond	-	56,275	57,974	1,699	3.02%
Investment Earnings	44,569	3,496	3,573	77	2.20%
Operating Transfers	525,207	551,107	830,462	279,355	50.69%
Poudre River Bridge Cleanup	-	-	200,000	200,000	-
Repairs #3 Ditch	6,578	56,275	57,974	1,699	3.02%
Storm Sewer Inspection Program	81,748	131,128	139,113	7,985	6.09%
Stormwater Asset Management	112,864	192,220	196,842	4,622	2.40%
Stormwater Maintenance	767,524	850,551	957,610	107,059	12.59%
Stormwater Services	96,243	96,243	146,663	50,420	52.39%
Street Sweeping	211,113	358,259	290,430	(67,829)	-18.93%
Sunrise Drainage improve	272,199	380,255	4,539,157	4,158,902	1,094%
System Main/Inlet/Culvert	155,292	764,283	1,430,352	666,069	87.15%
Water Quality Program	297,329	349,514	491,474	141,960	40.62%
Total Expenditures by Activity	\$ 5,372,319	\$ 8,568,983	\$ 23,572,030	\$ 15,003,047	175%

GENERAL DESCRIPTION

The **Stormwater** division CIP Management staff provides for design, construction, administration, and inspection of stormwater projects to solve stormwater problems throughout the City. This group consults with citizens to offer advice about drainage problems at existing homes.

ACTIVITY DESCRIPTIONS

The **Stormwater Asset Management** staff manages the stormwater infrastructure condition ratings and updates new assets that come into the system by development or new capital projects.

The **Stormwater Maintenance** staff provides cleaning and maintenance of city stormwater inlets, piping and detention ponds.

Street Sweeping is responsible for sweeping public streets, highways and municipal parking lots. Sweeping reduces stormwater pollution and provides a clean environment.

Water Quality staff provides for the development of environmental National Pollutant Discharge Elimination System documents, education programs for the public concerning environmental issues, inspection of construction sites for compliance with erosion control plans and detection of illicit discharges to stormwater systems.

STREET MAINTENANCE

PURPOSE: To provide maintenance of city streets, control snow and ice on streets for safe travel, and control vegetation in the public right-of-way and on city-owned property.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	455,084	589,358	589,358	-	-
Intergovernmental Revenue	2,482,656	2,288,600	2,458,600	170,000	7.43%
Miscellaneous Revenue	597,306	637,334	637,334	-	-
Use of Fund Balance	137,879	528,084	886,893	358,809	67.95%
Total Resources	\$ 3,672,924	\$ 4,043,376	\$ 4,572,185	\$ 528,809	13.08%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	1,827,311	1,961,327	2,089,864	128,537	6.55%
Supplies & Services	1,840,018	2,082,049	2,482,321	400,272	19.22%
Capital	5,595	-	-	-	-
Total Expenditures by Category	\$ 3,672,924	\$ 4,043,376	\$ 4,572,185	\$ 528,809	13.08%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
104 - Streets & Roads	3,672,924	4,043,376	4,572,185	528,809	13.08%
Total Expenditures by Fund	\$ 3,672,924	\$ 4,043,376	\$ 4,572,185	\$ 528,809	13.08%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Graffiti Program	48,351	59,901	66,961	7,060	11.79%
Organic Resource Recovery	1,250	1,032	1,032	-	-
Snow And Ice Removal	908,826	892,288	964,165	71,877	8.06%
Spring Clean Up	56,469	38,096	38,434	338	0.89%
Street Maintenance	1,947,586	2,159,374	2,493,663	334,289	15.48%
Street Resurfacing	710,442	892,685	1,007,930	115,245	12.91%
Total Expenditures by Activity	\$ 3,672,924	\$ 4,043,376	\$ 4,572,185	\$ 528,809	13.08%

STREET MAINTENANCE

CONTINUED

ACTIVITY DESCRIPTIONS

The **Graffiti Program** is responsible for removing all graffiti within 24 hours of notification 90% of the time.

The **Homeless Camp Cleanup** program cleans items and debris left under the Poudre River bridges in the downtown area of Greeley.

Organic Resource Recovery through the Greeley Organic Waste (G.R.O.W) Center provides for community recycling of organic materials such as wood, grass, leaves and other “green” recyclable materials.

Snow and Ice Removal provide de-icing and plowing operations for main arterial streets and for parking lots and bus stops that are owned by the City.

Street Maintenance and Potholes maintains the city streets, alleys, and related facilities in the public right-of-way.

Street Resurfacing is responsible for damaged pavement repair, crack sealing, and concrete maintenance.

Spring Clean Up weekend allows Greeley residents to dispose of or recycle unwanted items.

TRANSIT SERVICES

PURPOSE: To operate a public mass transit system including fixed routes, paratransit, and demand response service to encourage the use of alternative transportation.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	368,357	917,500	917,500	-	-
Intergovernmental Revenue	4,445,908	8,153,892	3,702,738	(4,451,154)	-54.59%
Miscellaneous Revenue	52,695	-	-	-	-
Use of Fund Balance	466,997	2,801,392	2615034	(186,358)	-6.65%
Total Resources	\$ 5,333,957	\$ 11,872,784	\$ 7,235,272	(\$ 4,637,512)	-39.06%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	4,225,892	4,052,418	4,339,021	286,603	7.07%
Supplies & Services	1,016,220	1,757,566	1,896,251	138,685	7.89%
Capital	91,844	6,062,800	1,000,000	(5,062,800)	-83.51%
Total Expenditures by Category	\$ 5,333,957	\$ 11,872,784	\$ 7,235,272	(\$ 4,637,512)	-39.06%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
100 - General	5,333,957	11,872,784	7,235,272	(4,637,512)	-39.06%
Total Expenditures by Fund	\$ 5,333,957	\$ 11,872,784	\$ 7,235,272	(\$ 4,637,512)	-39.06%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
ADA Paratransit Capital	214	-	-	-	-
ADA Paratransit Operations	363,670	450,687	480,891	30,204	6.70%
Demand Response Operation	54,984	33,370	35,373	2,003	6.00%
Fixed Route Capital	83,234	6,062,800	1,000,000	(5,062,800)	-83.51%
Fixed Route Operations	2,734,896	2,822,023	3,258,681	436,658	15.47%
Poudre Express Regional Route	231,771	441,028	449,639	8,611	1.95%
Preventative Maintenance	775,871	832,354	880,756	48,402	5.82%
Transit Administration Capital	-	20,000	20,000	-	-
Transit Services Administration	1,089,315	1,210,522	1,109,932	(100,590)	-8.31%
Total Expenditures by Activity	\$ 5,333,957	\$ 11,872,784	\$ 7,235,272	(\$ 4,637,512)	-39.06%

TRANSIT SERVICES

CONTINUED

ACTIVITY DESCRIPTIONS

The **ADA** (Americans with Disabilities Act) **Paratransit Operations** provide door-to-door service for individuals and their Personal Care Attendants (PCA) and guests who have special transportation needs because of disabilities.

The **Demand Response Operations** provide evening transportation services after the Fixed Route Operations have ended for the day; service on Sunday is also provided. This is available to individuals with disabilities and the general public.

The **Fixed Route** Service provides daily transportation of citizens along major corridors in Greeley and Evans.

Preventative Maintenance performs the maintenance and repairs on transit buses to ensure regular operations.

Transit Services Administration oversees the transit division and ensures transit services are meeting the needs of the public.

TRANSPORTATION SERVICES

PURPOSE: To provide for the safe operation and maintenance of that part of the Transportation System that controls, guides and directs the public through effective design, markings, street lighting and traffic control on the city streets.

Resources	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Charges for Services	276,276	231,480	275,980	44,500	19.22%
Fines & Forfeits	820	-	-	-	-
Intergovernmental Revenue	582,200	577,875	583,275	5,400	0.93%
Licenses & Permits	4,586	8,000	8,000	-	-
Taxes	708,457	708,320	724,000	15,680	2.21%
Miscellaneous Revenue	2,668	2,500	2,500	-	-
Transfers In	-	25,000	-	(25,000)	-100%
Use of Fund Balance	2,200,575	2,444,595	2,553,241	108,646	4.44%
Total Resources	\$ 3,775,581	\$ 3,997,770	\$ 4,146,996	\$ 149,226	3.73%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	1,430,904	1,487,500	1,649,512	162,012	10.89%
Supplies & Services	2,294,358	2,471,320	2,497,484	26,164	1.06%
Capital	50,320	38,950	-	(38,950)	-100%
Total Expenditures by Category	\$ 3,775,581	\$ 3,997,770	\$ 4,146,996	\$ 149,226	3.73%

Expenditures by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
104 - Streets & Roads	3,775,581	3,997,770	4,146,996	149,226	3.73%
Total Expenditures by Fund	\$ 3,775,581	\$ 3,997,770	\$ 4,146,996	\$ 149,226	3.73%

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Signal Operations	928,359	1,032,220	1,112,227	80,007	7.75%
Signs & Markings	886,737	947,181	957,839	10,658	1.13%
Street Lighting	1,377,543	1,377,030	1,404,571	27,541	2.00%
Traffic Management	582,941	641,339	672,359	31,020	4.84%

TRANSPORTATION SERVICES

CONTINUED

ACTIVITY DESCRIPTIONS

The **Signal Operations** section installs and maintains traffic signals to provide safe and convenient traffic flow. Staff responds to calls regarding malfunctioning traffic signals, performs traffic hazard studies and annual maintenance on all signals.

The **Signs & Markings** section fabricates, installs, and maintains regulatory, warning, guide, and specialty signs for the safety and convenience of the motoring public and pedestrians. This section is also responsible for the year-round markings on arterial and collector streets such as lane markings, crosswalks, turn arrows, turn lanes, and school markings. The staff also reviews all subdivision and building plans for needed pavement markings.

The **Street Lighting** program provides community-wide lighting for public safety, investigates and implements more efficient lighting methods and cost reductions, reviews plans and designs for subdivisions and buildings, and issues payment for street lighting and signal power costs.

Traffic Management provides short and long range transportation planning and management. It evaluates development proposals as requested and prepares grants for transportation projects. This program participates with access committees on corridors of regional significance and updates the Master Transportation Plan. Transportation Management tracks all signs, traffic signals and pavement marking assets through inspection and GIS (Geographic Information System) applications. The System Design and Monitoring staff conducts traffic counts, speed studies, and analyzes accident statistics to enhance the safe, effective movement of traffic and goods within the city. It implements solutions for the traveling public, reviews traffic control plans submitted by contractors and enforces implementation.



SEWER



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	11,943,439	18,905,181	16,839,861	(2,065,320)	-10.92%
Intergovernmental Revenue	132,273	-	-	-	-
Licenses & Permits	-	32,000	30,000	(2,000)	-6.25%
Miscellaneous Revenue	1,092,397	197,592	374,415	176,823	89.49%
Bond Proceeds	-	25,000,000	-	(25,000,000)	-100%
Use of Fund Balance	1,553,364	14,879,859	608,381	(14,271,478)	-95.91%
Total Resources	\$ 14,721,474	\$ 59,014,632	\$ 17,852,657	(\$ 41,161,975)	-69.75%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	3,763,928	3,726,331	3,850,520	124,189	3.33%
Supplies & Services	2,267,158	3,430,965	3,241,558	(189,407)	-5.52%
Capital	6,481,146	49,666,464	8,435,048	(41,231,416)	-83.02%
Debt	1,284,231	1,370,244	1,373,844	3,600	0.26%
Transfers Out	925,011	820,628	951,687	131,059	15.97%
Total Expenditures by Category	\$ 14,721,474	\$ 59,014,632	\$ 17,852,657	(\$ 41,161,975)	-69.75%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
411 - Sewer	6,555,838	7,817,104	7,862,236	45,132	0.58%
Wastewater Collection	1,173,542	1,443,376	1,444,361	985	0.07%
Sewer General Management	1,502,577	1,722,778	1,801,300	78,522	4.56%
Wastewater Treatment	3,879,718	4,650,950	4,616,575	(34,375)	-0.74%
412 - Sewer Construction	6,555,838	7,817,104	7,862,236	45,132	0.577%
413 - Sewer Capital Replacement	5,899,574	43,321,530	6,528,973	(36,792,557)	-84.93%
414 - Sewer Debt Service	1,285,195	1,375,244	1,378,844	3,600	0.26%
Total Expenditures by Fund	\$ 14,721,474	\$ 59,014,632	\$ 17,852,657	(\$ 41,161,975)	-69.75%

GENERAL DESCRIPTION

The **Sewer** Department collects water-borne waste from residences and businesses and provides treatment and environmentally safe release. Sewer consists of three divisions: General Management, Wastewater Treatment, and Wastewater Collection.

SEWER

CONTINUED

HOW THE DEPARTMENT IS ORGANIZED

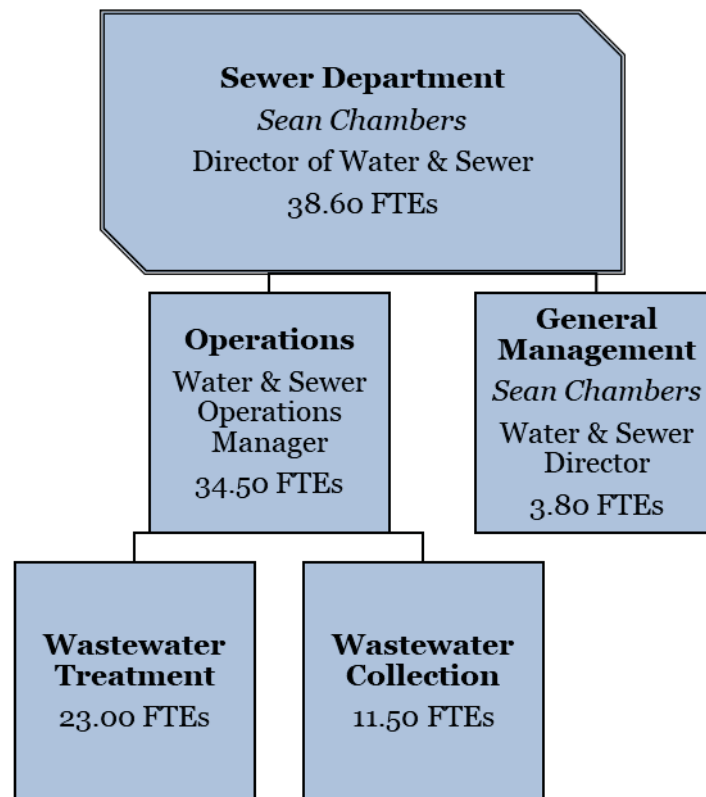
The Water and Sewer Director reports to the City Manager and is accountable for all water and sewer operations.

Sewer General Management consists of engineering and administrative services which provide expertise for design, maintenance, and expansion of the wastewater system, as well as technical operational support. It also provides for rate design, budgeting, and administrative support.

Wastewater Collection protects the public health by transporting wastewater away from homes and businesses to a centralized treatment facility.

Wastewater Treatment preserves the environment by treating wastewater before it is discharged to the receiving stream and by treating biodegradable solids to the degree suitable for land application and beneficial use.

ORGANIZATIONAL CHART



SEWER

CONTINUED

2022 BUDGET INCREASE REQUESTS

FUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) ADMINISTRATION	SEWER	\$ 42,000
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) INDUSTRIAL PRETREATMENT	SEWER	16,500
TOTAL FUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 58,500

FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
LEADERSHIP TRAINING	SEWER	\$ 10,000
TOTAL FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS		\$ 10,000

UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) MAINTENANCE	SEWER	\$ 70,000
WASTEWATER TREATMENT & RECLAMATION FACILITY (WTRF) OPERATIONS	SEWER	38,480
TOTAL UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 108,480

SEWER

CONTINUED

FTE SUMMARY

Sewer	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Sewer General Management				
Asset Manager	0.20	0.20	-	0.20
Asset Technician	0.20	0.20	-	0.20
Construction Inspector	-	-	-	-
Budget Analyst	0.20	-	-	-
Chief Engineer: Water & Sewer	0.40	0.40	-	0.40
Civil Engineer I	-	-	0.20	0.20
Civil Engineer II	-	1.00	-	1.00
Civil Engineer III	-	1.00	-	1.00
Deputy Director Water & Wastewater Operations	0.40	0.40	-	0.40
Senior Construction Inspector	-	-	-	-
Utility Finance Manager	-	0.20	-	0.20
Water & Sewer Director	0.20	0.20	-	0.20
Water Resource Engineer II	2.00	-	-	-
Total Sewer General Management	3.60	3.60	0.20	3.80
Wastewater Treatment				
Industrial Pretreatment Coordinator	-	1.00	-	1.00
Industrial Pretreatment Specialist	1.00	1.00	-	1.00
Laboratory Coordinator	-	1.00	-	1.00
Lead Plant Operator	-	2.00	-	2.00
Maintenance Mechanic: Wastewater	4.00	4.00	-	4.00
Plant Operator A: Wastewater	8.00	3.00	1.00	4.00
Plant Operator B: Wastewater	-	1.00	(1.00)	-
Plant Operator C: Wastewater	-	1.00	-	1.00
Plant Operator D: Wastewater	-	1.00	-	1.00
Senior Administrative Specialist	1.00	1.00	-	1.00
Utility Systems Analyst	1.00	1.00	-	1.00
Wastewater Laboratory Supervisor	1.00	1.00	-	1.00
Wastewater Maintenance Supervisor	1.00	1.00	-	1.00
Wastewater Operations & Maintenance Supervisor	1.00	1.00	-	1.00
Wastewater Technical Services Manager	1.00	1.00	-	1.00
Wastewater Treatment Superintendent	1.00	1.00	-	1.00
Water Instrument Technician	1.50	-	-	-
Water Quality Analyst	2.00	1.00	-	1.00
Water Resource Analyst	-	-	-	-
Total Wastewater Treatment	23.50	23.00	-	23.00

SEWER

CONTINUED

FTE SUMMARY (CONTINUED)

Sewer	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Wastewater Collection				
Equipment Operator II: Wastewater	4.00	4.00	-	4.00
Lift Station Technician	1.00	1.00	-	1.00
Maintenance Technician	-	-	-	-
Utility Locator	1.00	0.50	-	0.50
Wastewater Collection Supervisor	1.00	1.00	-	1.00
Water & Sewer Maintenance Technician I	4.00	5.00	-	5.00
Total Wastewater Collection	11.00	11.50	-	11.50
Total Sewer	38.10	38.10	0.20	38.30

PERFORMANCE INDICATORS

- < 80% of biodegradable organic plant capacity utilized
- < 6 sewer line blockages per year
- < 40 minute response time to sewer calls

SEWER GENERAL MANAGEMENT

PURPOSE: To provide engineering, administrative, budgeting, and rate design services for the collection and treatment divisions and review plans for sewer extensions and new development.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	4,924,481	6,492,915	7,499,555	1,006,640	15.50%
Intergovernmental Revenue	132,273	-	-	-	-
Licenses & Permits	-	32,000	30,000	(2,000)	-6.25%
Miscellaneous Revenue	970,767	173,000	173,000	-	-
Use of Fund Balance	(4,524,945)	(4,975,137)	(5,901,255)	(926,118)	18.61%
Total Resources	\$ 1,502,577	\$ 1,722,778	\$ 1,801,300	\$ 78,522	4.6%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	380,628	550,969	536,060	(14,909)	-2.71%
Supplies & Services	380,955	489,655	481,655	(8,000)	-1.63%
Transfers Out	740,994	682,154	783,585	101,431	14.87%
Total Expenditures by Category	\$ 1,502,577	\$ 1,722,778	\$ 1,801,300	\$ 78,522	4.56%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
411 - Sewer	1,502,577	1,722,778	1,801,300	78,522	4.56%
Total Expenditures by Fund	\$ 1,502,577	\$ 1,722,778	\$ 1,801,300	\$ 78,522	4.56%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Engineering	197,603	397,609	380,933	(16,676)	-4.19%
Investment Earnings	12,762	-	-	-	-
Liability Insurance	207,300	318,150	318,150	-	-
Operating Transfers	740,994	682,154	783,585	101,431	14.87%
Sewer Administration	343,918	324,865	318,632	(6,233)	-1.92%
Total Expenditures by Activity	\$ 1,502,577	\$ 1,722,778	\$ 1,801,300	\$ 78,522	4.56%

ACTIVITY DESCRIPTIONS

The **Sewer General Management** provides budgeting, general management, and rate design services.

Sewer Construction is responsible for providing construction inspection services and monitoring quality assurance for development and capital projects.

Sewer Engineering reviews subdivision plans for new sewer extensions, assuring that such plans meet the long-term needs of the community. It is also responsible for sewer rehabilitation projects which include writing specifications, design preparations, and construction management.

WASTEWATER COLLECTION

PURPOSE: To protect public health and the aesthetic quality of urban living by efficient collection of wastewater from homes and businesses, and then transporting the wastewater to a centralized facility for treatment.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,959	-	-	-	-
Use of Fund Balance	1,171,583	1,443,376	1,444,361	985	0.07%
Total Resources	\$ 1,173,542	\$ 1,443,376	\$ 1,444,361	\$ 985	0.07%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	781,412	918,387	912,410	(5,977)	-0.65%
Supplies & Services	392,130	524,989	531,951	6,962	1.33%
Total Expenditures by Category	\$ 1,173,542	\$ 1,443,376	\$ 1,444,361	\$ 985	0.07%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
411 - Sewer	1,173,542	1,443,376	1,444,361	985	0.07%
Total Expenditures by Fund	\$ 1,173,542	\$ 1,443,376	\$ 1,444,361	\$ 985	0.07%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Wastewater Collection	1,173,542	1,443,376	1,444,361	985	0.07%
Total Expenditures by Activity	\$ 1,173,542	\$ 1,443,376	\$ 1,444,361	\$ 985	0.07%

ACTIVITY DESCRIPTIONS

The **Wastewater Maintenance & Collection** program has five sections: Sewer Line Cleaning, Sewer Inspection, Sewer Repair, and Pump Station Maintenance and Locations. Sewer Line Cleaning is performed to reduce the City's liability for damages to private property by attempting to prevent stoppages in the sewer lines. The Sewer Inspection staff performs visual and televised inspections. As a result of televising, determinations are made for priorities of cleaning, repairing, and rehabilitation. The Sewer Repair Section is an in-house effort to correct problems from deterioration and disrepair of lines and manholes. Locations provide information to customers, other utilities and contractors in an effort to prevent damages to public and private lines.

The **Pumping Station** function operates and maintains ten lift stations. The lift stations are necessary for public sewer service to neighborhoods which do not have the elevation necessary for gravity flow to the wastewater treatment facility.

WASTEWATER TREATMENT

PURPOSE: To treat the city's domestic and non-domestic sewage in compliance with all federal, state, and local standards and to release treated sewage in an acceptable, non-polluting manner.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	104,868	10,000	-	(10,000)	-100%
Miscellaneous Revenue	54	-	-	-	-
Use of Fund Balance	3,774,797	4,640,950	4,616,575	(24,375)	-0.53%
Total Resources	\$ 3,879,718	\$ 4,650,950	\$ 4,616,575	(\$ 34,375)	-0.74%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	2,399,447	2,256,975	2,402,050	145,075	6.43%
Supplies & Services	1,480,271	2,393,975	2,214,525	(179,450)	-7.50%
Total Expenditures by Category	\$ 3,879,718	\$ 4,650,950	\$ 4,616,575	(\$ 34,375)	-0.74%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
411 - Sewer	3,879,718	4,650,950	4,616,575	(34,375)	-0.74%
Total Expenditures by Fund	\$ 3,879,718	\$ 4,650,950	\$ 4,616,575	(\$ 34,375)	-0.74%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Industrial Pretreatment	240,749	355,843	388,557	32,714	9.19%
Laboratory	258,585	399,919	415,182	15,263	3.82%
Maintenance	661,268	876,080	886,674	10,594	1.21%
Operations	1,808,560	2,560,319	2,420,677	(139,642)	-5.45%
WPCF Administration	910,556	458,789	505,485	46,696	10.18%
Total Expenditures by Activity	\$ 3,879,718	\$ 4,650,950	\$ 4,616,575	(\$ 34,375)	-0.74%

ACTIVITY DESCRIPTIONS

Industrial Pretreatment is responsible for monitoring and regulating all industries which may discharge prohibited, incompatible, or otherwise undesirable constituents into the City's public sewer system.

The **Wastewater Treatment Laboratory** performs all required wastewater sample collections and analyses. Laboratory tests are performed to monitor treatment plant performance for optimum efficiency and to satisfy discharge permit requirements mandated by the Colorado Department of Health.

Maintenance is responsible for a preventive maintenance program, as well as quick and efficient repair of all facility equipment. They are responsible for the up-keep of all buildings and grounds at the Water Pollution Control Facility.

Operations is responsible for controlling all processes at the facility for the effective treatment of wastewater. Operations monitor all equipment and laboratory data 24 hours a day. They coordinate all plant components for optimum efficiency.

WASTEWATER TREATMENT

CONTINUED

Administration oversees the wastewater treatment and ensures compliance with all federal, state, and local standards and to release treated sewage in an acceptable, non-polluting manner.



WATER



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	50,678,611	58,866,740	53,199,861	(5,666,879)	-9.63%
Intergovernmental Revenue	3,787,103	19,445,449	-	(19,445,449)	-100%
Miscellaneous Revenue	1,911,099	5,425,082	20,305,794	14,880,712	274%
Bond Proceeds	-	123,050,000	-	(123,050,000)	-100%
Transfers In	1,632,153	82,153	82,153	-	-
Use of Fund Balance	12,094,176	(14,764,791)	41,168,822	55,933,613	-379%
Total Resources	\$ 70,103,141	\$ 192,104,633	\$ 114,756,630	(\$ 77,348,003)	-40.26%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	7,988,870	8,972,086	10,602,032	1,629,946	18.17%
Supplies & Services	9,181,149	27,769,187	10,989,723	(16,779,464)	-60.42%
Capital	39,255,411	141,953,159	78,809,942	(63,143,217)	-44.48%
Debt	9,930,947	10,886,381	10,925,681	39,300	0.36%
Transfers Out	3,746,765	2,523,820	3,429,252	905,432	35.88%
Total Expenditures by Category	\$ 70,103,141	\$ 192,104,633	\$ 114,756,630	(\$ 77,348,003)	-40.26%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
421 - Water	20,413,151	39,077,454	24,513,317	(14,564,137)	-37.27%
Water General Management	6,187,367	5,216,797	6,225,705	1,008,908	19.34%
Water Transmission/Distribution	4,623,363	5,158,233	5,495,713	337,480	6.54%
Water Treatment and Supply	9,602,421	28,702,424	12,791,899	(15,910,525)	-55.43%
422 - Water Construction	6,204,238	75,807,790	46,030,189	(29,777,601)	-39.28%
423 - Water Capital Replacement	17,100,803	39,138,328	24,647,011	(14,491,317)	-37.03%
424 - Water Rights Acquisition	16,443,938	27,194,680	8,640,432	(18,554,248)	-68.23%
425 - Water Debt Service	9,941,012	10,886,381	10,925,681	39,300	0.36%
Total Expenditures by Fund	\$ 70,103,141	\$ 192,104,633	\$ 114,756,630	(\$ 77,348,003)	-40.26%

GENERAL DESCRIPTION

The purpose of the **Water** Department is to provide water to the citizens and industry of Greeley of a quality and quantity that meets all health and aesthetic criteria. The department consists of the General Management, Transmission and Distribution, and Treatment and Supply divisions.

WATER

CONTINUED

HOW THE DEPARTMENT IS ORGANIZED

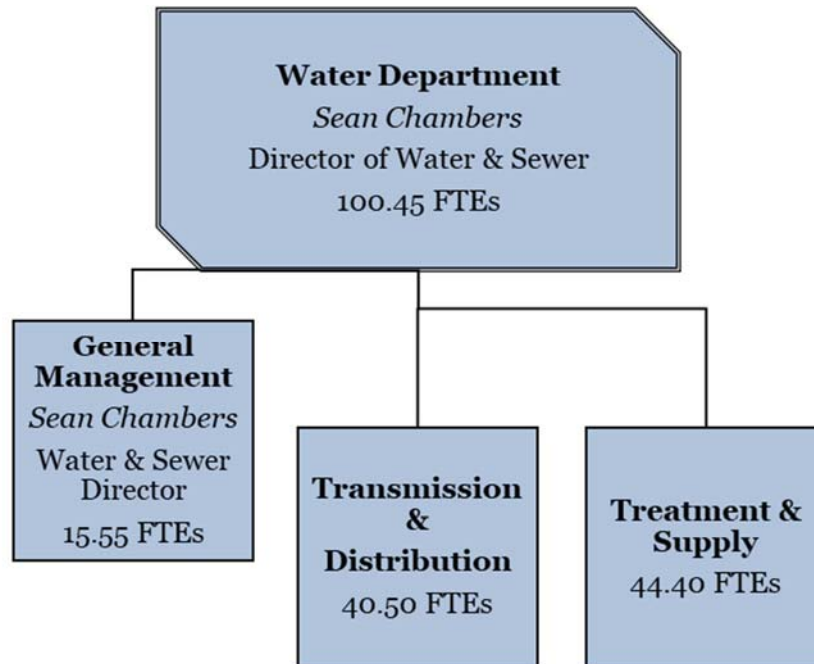
The Water and Sewer Director reports to the City Manager and is responsible for all water and sewer operations. The Director and administrative staff provide the planning, organizing, and executive management of daily operations.

Water General Management consists of Engineering and Administration. The Engineering staff provides expertise for initial design, maintenance, and expansion of the water system. It also provides technical support and contract administration. Administration provides executive management, budget and rate design, and development review/permitting referral services.

Transmission and Distribution operations move treated water from the treatment plants to the consumer. This involves the operation and maintenance of over 655 miles of water pipeline. Other services include meter reading and maintenance.

Treatment and Supply provides clean and aesthetically pleasing water to Greeley residents through the management of the City's six mountain reservoirs and four locally treated reservoirs, storage agreements with other agencies, and water purchases.

ORGANIZATIONAL CHART



WATER

CONTINUED

2022 BUDGET INCREASE REQUESTS

FUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
FIVE PLANT OPERATORS	WATER	\$ 578,649
BELLVUE OPERATIONS	WATER	214,400
CIVIL ENGINEER II-IV WATER SYSTEM DEVELOPMENT	WATER	145,372
BOYD SODIUM HYPOCHLORITE	WATER	140,000
CIVIL ENGINEER I-II	WATER	129,849
UTILITY LOCATOR	WATER	126,677
WATER QUALITY ANALYST	WATER	95,575
BELLVUE MAINTENANCE MECHANIC	WATER	94,832
METER SHOP OPERATIONS	WATER	64,013
WATER CONSERVATION SPECIALIST I & II RECLASSIFICATION	WATER	34,341
HIGH MOUNTAIN RESERVOIRS OPERATIONS	WATER	33,400
REGIONAL WATER STRATEGIC OPERATIONS	WATER	30,000
WATER QUALITY OPERATIONS	WATER	29,160
TOTAL FUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 1,716,268

FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
TWO ALLO-PROJECT UTILITY LOCATORS	WATER	\$ 164,318
LEADERSHIP TRAINING	WATER	15,000
SAMPLING PROTOCOLS PONTOON BOAT	WATER	25,000
TOTAL FUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS		\$ 204,318

UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ASSET MANAGEMENT SENIOR LEADER	WATER	\$ 213,453
SUCCESSION, OVERHIRE, ASSESSMENT/CLASS & COMP SALARY ADJUSTMENTS	WATER	200,000
W&S CAPITAL PROJECTS MANAGER	WATER	185,000
UTILITY ASSET MANAGEMENT SUPERVISOR	WATER	132,399
WATER RESOURCES OPERATIONS	WATER	132,000
NON-POTABLE RAW WATER TECHNICIAN	WATER	123,921
COMMERCIAL DRIVER'S LICENSE & DEPARTMENT OF TRANSPORTATION COMPLIANCE COORDINATOR	WATER	100,000
LOBBYING CONSULTANT	WATER	100,000
ENGINEERING SUPPORT FOR FEDERAL PERMITTING RESPONSE	WATER	80,000
DISTRIBUTION OPERATIONS	WATER	72,202
INSTRUMENTATION & CONTROL (I&C) OPERATIONS	WATER	61,648
NON-POTABLE OPERATIONS	WATER	49,750
TRANSMISSION RESERVOIRS OPERATIONS	WATER	8,625
TOTAL UNFUNDED: NON-GENERAL FUND, ONGOING REQUESTS		\$ 1,458,998

WATER

CONTINUED

UNFUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
WATER CONSERVATION PLANIMETRIC DATA	WATER	\$ 68,000
UTILITY AFFORDABILITY PROGRAM	WATER	50,000
NON-POTABLE WATER TANK & ACCESSORIES	WATER	45,000
RESERVOIRS TRUCK WITH UTILITY BED	WATER	45,000
WATER CONSERVATION VEHICLE & UTILITY TRAILER	WATER	45,000
INSTRUMENTATION & CONTROLS (I&C) VEHICLE	WATER	34,000
TOTAL UNFUNDED: NON-GENERAL FUND, ONE-TIME REQUESTS		\$ 287,000

FTE SUMMARY

Water	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Water General Management				
Administrative Specialist II	2.00	2.00	(1.00)	1.00
Asset Manager	0.80	0.80	-	0.80
Asset Technician	0.80	0.80	-	0.80
Chief Engineer: Water & Sewer	0.60	0.60	-	0.60
Civil Engineer I	-	-	0.40	0.40
Civil Engineer II	-	-	1.00	1.00
Civil Engineer III	-	2.00	-	2.00
Construction Inspector	-	-	-	-
Deputy Director Water & Wastewater Operations	0.60	0.60	-	0.60
Marketing Technician	-	-	-	-
Office Manager	1.00	1.00	-	1.00
Plans Examiner	-	1.00	-	1.00
Rates & Budget Analyst	0.80	1.00	-	1.00
Regulatory Compliance	0.50	-	-	-
Senior Administrative Specialist	1.00	-	-	-
Senior Construction Manager	-	-	-	-
Survey Technician	1.00	0.75	-	0.75
Utility Finance Manager	1.00	0.80	-	0.80
Water & Sewer Director	0.80	0.80	-	0.80
Water & Sewer Services Coordinator	1.00	1.00	-	1.00
Water & Sewer Services Technician	1.00	-	-	-
Water Resource Engineer IV	2.00	-	1.00	1.00
Total Water General Management	14.90	13.15	1.40	14.55

WATER CONTINUED

FTE SUMMARY (CONTINUED)

Water	2020 Revised	2021 Revised	2022 vs. 2021 Revised	2022
Transmission & Distribution				
Assistant Water Transmission, Distribution & Wastewater Control Superintendent	-	1.00	-	1.00
Crew Leader II	1.00	1.00	-	1.00
Crew Supervisor: Water	3.00	3.00	-	3.00
Distribution & Collections Manager	-	1.00	-	1.00
Equipment Operator I: Water	8.00	-	-	-
Equipment Operator II: Water	4.00	4.00	-	4.00
Field Services Representative	1.00	-	-	-
Capital Projects Manager	-	1.00	-	1.00
Instrument & Control Supervisor	-	1.00	-	1.00
Lead Meter Services Technician	-	1.00	-	1.00
Lead Plant Operator	-	-	-	-
Maintenance Mechanic	1.00	1.00	-	1.00
Meter Reader	1.00	-	-	-
Meter Services Technician	3.00	3.00	-	3.00
Project Coordinator	-	1.00	-	1.00
Raw Water Operations Supervisor	1.00	1.00	-	1.00
Raw Water Operations Technician	2.00	2.00	-	2.00
Reservoir Maintenance Technician	-	1.00	-	1.00
Reservoirs Operations Supervisor	1.00	-	-	-
Reservoirs Supervisor	1.00	1.00	(1.00)	-
Transmission Line Technician	1.00	2.00	-	2.00
Utility Locator	-	0.50	3.00	3.50
Water & Sewer Maintenance Technician I	1.00	6.00	-	6.00
Water Conservation Specialist	1.00	-	-	-
Water Distribution Supervisor	0.75	-	-	-
Water Instrument Technician	2.00	4.00	-	4.00
Water Instrument Technician Entry	1.00	1.00	-	1.00
Water Inventory Coordinator	1.00	1.00	-	1.00
Water Service Technician	1.00	1.00	-	1.00
Water Transmission, Distribution & Wastewater Superintendent	1.00	1.00	-	1.00
Total Transmission & Distribution	36.75	39.50	2.00	41.50

WATER CONTINUED

FTE SUMMARY (CONTINUED)

	2020 Revised	2021 Revised	2022 vs. 2021 Revised	-
Treatment & Supply				-
Civil Engineer I	-	1.00	(0.60)	0.40
Deputy Director Water Resources	1.00	1.00	-	1.00
Government & Public Relation Manager	1.00	1.00	-	1.00
High Mountain Reservoir Crew Supervisor	-	1.00	-	1.00
Lead Plant Operator	-	1.00	3.00	4.00
Maintenance Mechanic	2.00	2.00	1.00	3.00
Plant Operator A: Resident	2.00	2.00	-	2.00
Plant Operator A: Water	8.00	6.00	3.00	9.00
Plant Operator B: Water	-	1.00	-	1.00
Plant Operator C: Water	-	-	1.00	1.00
Plant Operator D: Water	-	1.00	-	1.00
Raw Water Operations Technician	1.00	-	-	-
Senior Administrative Specialist	-	1.00	-	1.00
Senior Water Resource Engineer	1.00	-	-	-
Water & Sewer Maintenance Technician I	1.00	1.00	-	1.00
Water and Farm Asset Coordinator	1.00	-	-	-
Water Conservation Administrator	-	1.00	-	1.00
Water Conservation Coordinator	1.00	-	-	-
Water Conservation Manager	-	1.00	-	1.00
Water Conservation Specialist	2.00	2.00	(2.00)	-
Water Conservation Specialist I	-	-	1.00	1.00
Water Conservation Specialist II	-	-	1.00	1.00
Water Instrument Technician	1.50	-	-	-
Water Quality & Regulatory Compliance Manager	0.50	1.00	-	1.00
Water Quality Analyst	-	-	1.00	1.00
Water Quality Technician I	-	1.00	-	1.00
Water Resource Administrator I	2.00	1.00	-	1.00
Water Resource Administrator II	3.00	3.00	-	3.00
Water Resource Administrator III	-	-	1.00	1.00
Water Resource Analyst	1.00	1.00	(1.00)	-
Water Resource Engineer I	1.00	-	-	-
Water Resource Engineer IV	-	1.00	-	1.00
Water Resource Operations Manager	1.00	1.00	-	1.00
Water Resource Planning Manager	-	1.00	-	1.00
Water Supply Technician	2.00	1.00	-	1.00
Water Treatment Manager	1.00	1.00	-	1.00
Water Treatment Plant Superintendent	1.00	1.00	-	1.00
Total Water Resources	35.00	36.00	8.40	44.40
Total Water	86.65	88.65	11.80	100.45

WATER

CONTINUED

PERFORMANCE INDICATORS

- 100% of meter transmitter failures repaired within 3 working days
- Restore disrupted water service in less than 4 hours: 95%
- 100% compliance with solid waste regulations (water treatment residuals)
- > 90% of participants within designated water budget

WATER GENERAL MANAGEMENT

PURPOSE: To provide general management and engineering services for the various Water Division programs.

Resources	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Charges for Services	20,098,242	22,720,732	27,548,540	4,827,808	21.25%
Intergovernmental Revenue	175,610	-	-	-	-
Miscellaneous Revenue	1,269,607	110,000	105,000	(5,000)	-4.55%
Transfers In	82,153	82,153	82,153	-	-
Use of Fund Balance	(15,438,246)	(17,696,088)	(21,509,988)	(3,813,900)	21.55%
Total Resources	\$ 6,187,367	\$ 5,216,797	\$ 6,225,705	\$ 1,008,908	19.34%

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	1,244,202	1,473,928	1,770,923	296,995	20.15%
Supplies & Services	1,366,616	1,436,596	1,562,572	125,976	8.77%
Transfers Out	3,576,548	2,306,273	2,892,210	585,937	25.41%
Total Expenditures by Category	\$ 6,187,367	\$ 5,216,797	\$ 6,225,705	\$ 1,008,908	19.34%

Expenditures by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
421 - Water	6,187,367	5,216,797	6,225,705	1,008,908	19.34%
Total Expenditures by Fund	\$ 6,187,367	\$ 5,216,797	\$ 6,225,705	\$ 1,008,908	19.34%

Expenditures by Activity	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Administration	1,968,108	2,007,497	2,233,184	225,687	11.24%
Engineering	378,694	584,877	782,161	197,284	33.73%
Investment Earnings	56,716	-	-	-	-
Liability Insurance	207,301	318,150	318,150	-	-
Operating Transfers	3,576,548	2,306,273	2,892,210	585,937	25.41%
Total Expenditures by Activity	\$ 6,187,367	\$ 5,216,797	\$ 6,225,705	\$ 1,008,908	19.34%

ACTIVITY DESCRIPTIONS

Water General Management provides general management, budgeting, and rate design services as well as permit processing and approval.

Administration provides general management, budgeting, and rate design services as well as development review/permitting referral services.

Engineering provides services for Supply, Treatment, Reservoir, Transmission, Distribution, and Meter Sections of the Water Department. Staff reviews subdivision plans, prepares specifications and plans for main extensions, manages a variety of contracts, and performs long-range planning for facilities and water rights acquisitions.

Utility Construction Inspection inspects water projects to ensure guidelines and regulations are met.

TRANSMISSION & DISTRIBUTION

PURPOSE: To operate and maintain an effective piping and storage system which measures and transports treated water from water treatment plants to the consumer.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	633,994	579,616	654,829	75,213	12.98%
Miscellaneous Revenue	17,639	-	-	-	-
Use of Fund Balance	3,971,730	4,578,617	4,840,884	262,267	5.73%
Total Resources	\$ 4,623,363	\$ 5,158,233	\$ 5,495,713	\$ 337,480	6.54%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	3,071,898	3,459,838	3,728,746	268,908	7.77%
Supplies & Services	1,551,465	1,698,395	1,721,967	23,572	1.39%
Capital	-	-	45,000	45,000	-
Total Expenditures by Category	\$ 4,623,363	\$ 5,158,233	\$ 5,495,713	\$ 337,480	6.54%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
421 - Water	4,623,363	5,158,233	5,495,713	337,480	6.54%
Total Expenditures by Fund	\$ 4,623,363	\$ 5,158,233	\$ 5,495,713	\$ 337,480	6.54%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Distribution	1,792,597	2,009,297	2,194,029	184,732	9.19%
Instrumentation and Control	654,056	706,810	833,451	126,641	17.92%
Inventory	183,429	275,000	275,000	-	-
Non-Potable Operations	701,733	745,725	770,212	24,487	3.28%
Service and Meters	384,615	481,925	568,431	86,506	17.95%
Transmission-Reservoir	906,934	939,476	854,590	(84,886)	-9.04%
Total Expenditures by Activity	\$ 4,623,363	\$ 5,158,233	\$ 5,495,713	\$ 337,480	6.54%

ACTIVITY DESCRIPTIONS

Distribution & Transmission is responsible for the maintenance and operation of 489 miles of distribution lines and 69 million gallons of treated water storage reservoirs.

Inventory accounts for equipment and materials withdrawn from a department run warehouse.

Service and Meters staff reads all metered accounts on a monthly basis, tests and maintains existing meters, responds to customer concerns, and inspects all new construction meter installations.

TRANSMISSION & DISTRIBUTION

CONTINUED

The City has numerous water rights below the water treatment plants. Pumping water back to the plants would be cost-prohibitive and inefficient. While the water can be used to satisfy return flows to the river, Greeley chooses to put it to beneficial use before returning it to the river. Greeley instead chooses to store those water rights closer to town to use as non-potable supply. **Non-Potable Operations** oversees the operations and maintenance of storage of non-potable water at Poudre ponds, Overland Trail Reservoir, and Greeley Irrigation Company Number 3 Ditch.

TREATMENT & SUPPLY

PURPOSE: To produce an adequate supply of high quality drinking water and a suitable supply of irrigation water based on consumer needs and expectations.

Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	1,838,183	375,000	650,000	275,000	73.33%
Intergovernmental Revenue	-	14,925,000	-	(14,925,000)	-100%
Miscellaneous Revenue	100,088	-	-	-	-
Transfers In	50,000	-	-	-	-
Use of Fund Balance	7,614,151	13,402,424	12,141,899	(1,260,525)	-9.41%
Total Resources	\$ 9,602,421	\$ 28,702,424	\$ 12,791,899	(\$ 15,910,525)	-55.43%

Expenditures by Category	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Salaries & Benefits	3,390,690	4,038,320	5,102,363	1,064,043	26.35%
Supplies & Services	6,211,731	24,618,584	7,676,536	(16,942,048)	-68.82%
Capital	-	45,520	13,000	(32,520)	-71.44%
Total Expenditures by Category	\$ 9,602,421	\$ 28,702,424	\$ 12,791,899	(\$ 15,910,525)	-55.43%

Expenditures by Fund	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
421 - Water	9,602,421	28,702,424	12,791,899	(15,910,525)	-55.43%
Total Expenditures by Fund	\$ 9,602,421	\$ 28,702,424	\$ 12,791,899	(\$ 15,910,525)	-55.43%

Expenditures by Activity	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Bellvue Filter Plant	1,941,022	2,371,895	3,076,412	704,517	29.70%
Boyd Lake Filter Plant	1,903,738	2,516,573	2,671,333	154,760	6.15%
High Mountain Reservoirs	443,626	496,494	585,705	89,211	17.97%
Water Conservation Program	523,128	697,244	739,878	42,634	6.11%
Water Quality	260,703	17,553,559	814,572	(16,738,987)	-95.36%
Water Resources	4,530,205	5,066,659	4,903,999	(162,660)	-3.21%
Total Expenditures by Activity	\$ 9,602,421	\$ 28,702,424	\$ 12,791,899	(\$ 15,910,525)	-55.43%

ACTIVITY DESCRIPTIONS

The **Bellvue Filter Plant** provides for the year-round operations and maintenance of the 32 million gallons per day (MGD) plant at the mouth of the Poudre Canyon.

The **Boyd Lake Plant** provides for the seasonal operation and maintenance of the filter plant located just south of Boyd Lake, and draws raw water from both Lake Loveland and Boyd Lake. This plant is a peaking operation with a capacity of 38 MGD.

TREATMENT & SUPPLY

CONTINUED

Water Resources is in charge of managing the City's water and related water rights.

Water Conservation is responsible for long range planning, water conservation, drought protection, and maintenance of supply waterways.

Water Quality is responsible for physically storing and transporting water in and out of City facilities, both locally and in the Cache la Poudre basin.

NON-DEPARTMENTAL



Resources	2020 Actual	2021 Revised Budget	2022 Proposed Budget	\$ Change	% Change
Charges for Services	4,805,912	4,853,717	5,410,482	556,765	11.47%
Gas Franchise Fee	1,429,009	1,540,658	1,705,180	164,522	10.68%
Electric Franchise Fee	2,346,313	2,213,059	2,432,802	219,743	9.93%
Cable TV Franchise Fee	930,527	950,000	930,000	(20,000)	-2.11%
Public Improvement Fee / Expense Reimburesment	100,062	150,000	150,000	-	-
Equipment Replacement	-	-	192,500	192,500	-
Federal Grants	8,485,821	2,719,836	3,460,000	740,164	27.21%
Cigarette Taxes	217,887	200,000	210,000	10,000	5.00%
Federal Mineral LS Funds	594,200	600,000	650,000	50,000	8.33%
Lottery Funds	1,105,270	1,000,000	1,100,000	100,000	10.00%
Severance Taxes	2,359,163	600,000	1,500,000	900,000	150%
State Intergovernmental Revenue	4,187,711	319,836	-	(319,836)	-100%
Federal Intergovernmental Revenue	21,590	-	-	-	-
Licenses & Permits	21,670	40,000	40,000	-	-
Taxes	88,966,055	95,768,948	104,426,708	8,657,760	9.04%
Property Tax	15,337,806	16,272,520	17,715,000	1,442,480	8.86%
Other Taxes	21,954	(30,000)	(30,000)	-	-
Lodger's Room Tax	376,457	484,646	577,646	93,000	19.19%
General Sales Tax	55,368,746	59,594,594	65,778,680	6,184,086	10.38%
Food Tax	8,980,645	9,746,389	10,038,781	292,392	3.00%
Auto Use Tax	4,347,501	4,226,030	4,373,940	147,910	3.50%
Building Use Tax	2,258,788	2,663,263	3,062,753	399,490	15.00%
General Use Tax	2,274,159	2,811,506	2,909,908	98,402	3.50%
Miscellaneous Revenue	1,080,345	1,213,701	1,210,846	(2,855)	-0.24%
Royalties	1,639,981	797,500	1,391,085	593,585	74.43%
Transfers In	65,924,713	69,901,297	75,533,072	5,631,775	8.06%
Use of Fund Balance	(67,472,908)	(70,957,437)	(76,228,808)	(5,271,371)	7.43%
Total Resources	\$ 103,451,589	\$ 104,337,562	\$ 115,243,385	\$ 10,905,823	10.45%

NON-DEPARTMENTAL

CONTINUED

Resources by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
100 - General	85,960,037	83,345,131	92,612,551	9,267,420	11%
102 - Convention & Visitors	373,649	479,646	572,646	93,000	19%
105 - Conservation Trust	1,114,370	1,001,000	1,101,000	100,000	10%
106 - Sales & Use Tax	73,229,839	79,041,782	86,164,062	7,122,280	9.01%
110 - Conference Center Development	429,934	764,500	764,500	-	-
111 - Downtown Development Authority TIF	832,546	725,000	725,000	-	-
112 - NEAHR Grants	256,609	-	-	-	-
113 - Weld Drug Task Force Equitable	30,756	-	-	-	-
120 - Designated Revenue	1,882,320	2,819,747	2,443,880	(375,867)	-13.33%
143 - Community Memorials	1,414	400	400	-	-
200 - General Debt Service	6,590,168	6,621,250	6,536,554	(84,696)	-1.28%
402 - Downtown Parking	5,212	1,100	1,100	-	-
500 - Health	26,705	113,500	113,500	-	-
501 - Workers' Compensation	26,705	113,500	113,500	-	-
513 - Equipment Replacement	-	-	202,500	202,500	-
601 - Cemetery Endowment	164,235	268,443	121,000	(147,443)	-54.93%
Use of Fund Balance	(67,472,908)	(70,957,437)	(76,228,808)	(5,271,371)	7.43%
Total Resources by Fund	\$ 103,451,589	\$ 104,337,562	\$ 115,243,385	\$ 10,905,823	10.45%

NON-DEPARTMENTAL

CONTINUED

Expenditures by Category	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
Salaries & Benefits	19,574	50,000	1,551,500	1,501,500	3,003%
Supplies & Services	4,505,043	5,036,204	5,979,080	942,876	18.72%
Capital	214,393	-	-	-	-
Debt	6,743,314	7,340,816	7,470,467	129,651	1.77%
Transfers Out	91,969,265	91,910,542	100,242,338	8,331,796	9.07%
Total Expenditures by Category	\$ 103,451,589	\$ 104,337,562	\$ 115,243,385	\$ 10,905,823	10.45%

Expenditures by Fund	2021 Revised		2022	\$ Change	% Change
	2020 Actual	Budget	Proposed Budget		
100 - General	16,139,194	12,900,982	14,579,125	1,678,143	13.0%
2016 COPs	1,683,483	1,769,133	1,875,783	106,650	6.03%
Broadband	375,694	1,426,288	-	(1,426,288)	-100%
County Treasures Fees	145,077	86,000	86,000	-	-
Disability	-	181,389	-	-	-100%
Department Assessments	204,512	479,676	640,000	160,324	33%
Homeless Shelter	326,904	200,000	200,000	-	-
Investment Earnings	53,318	37,000	37,000	-	-
Market Fund Adjustments	-	263,000	500,000	237,000	90%
Mosquito Spraying	46,000	46,000	46,000	-	-
New Home Buyer Assistance	15,000	129,661	-	(129,661)	-100%
Program Management	-	-	3,000,000	3,000,000	-
Sundry	2,014,524	1,819,595	1,242,885	(758,099)	-42%
Studies Positions	-	-	1,000,000	1,000,000	-
Operating Transfers	10,860,809	6,383,240	5,871,457	(511,783)	-8.02%
Unemployment Compensation	413,872	80,000	80,000	-	-
102 - Convention & Visitors	406,245	624,455	570,450	(54,005)	-8.65%
105 - Conservation Trust	1,204,885	964,969	1,002,250	37,281	3.86%
106 - Sales & Use Tax	75,800,497	79,450,782	86,574,062	7,123,280	8.97%
110 - Conference Center Development	430,659	728,000	764,500	36,500	5.01%
111 - Downtown Development Authority TIF	673,055	535,000	535,000	-	-
112 - NEAHR Grants	456,527	-	-	-	-
113 - Weld Drug Task Force Equitable Sharing	64,379	67,228	-	(67,228)	-100%
120 - Designated Revenue	1,725,406	2,400,199	4,464,436	2,064,237	86.00%
143 - Community Memorials	84	95	95	-	-
200 - General Debt Service	6,522,619	6,618,316	6,711,467	93,151	1.41%
402 - Downtown Parking	4,571	-	-	-	-
513 - Equipment Replacement	-	-	1,000	1,000	-
601 - Cemetery Endowment	23,468	47,536	41,000	(6,536)	-13.75%
Total Expenditures by Fund	\$ 103,451,589	\$ 104,337,562	\$ 115,243,385	\$ 10,905,823	10.45%

NON-DEPARTMENTAL

CONTINUED

GENERAL DESCRIPTION

Non-departmental expense provides a funding source for the general costs of city government which are common to multiple programs or cannot be identified with a specific department.

ACTIVITY DESCRIPTIONS

2016 COPs – Lease payments for City Center and Fire Station 1

Broadband – Funds designate for the City Broadband initiative.

County Treasurer's Fee - Payment of a 1% fee to the county for the collection of the City's share of property taxes.

Department Assessments - Assessments to be completed for Culture, Parks and Recreation, and a finance internal controls assessment.

Investment Earnings – Bank service charges associated with bank transactions.

Market Fund Adjustments – Funds allocated in 2020 to support adjustments and alignment in positions closer to the market. Upon approval and identification funds are allocated to the appropriate department(s).

Mosquito Spraying - Funds budgeted for Public Works to utilize for a mosquito spraying program.

New Home Buyer Assistance - Program created in 2015 to assist in the purchase of downtown residential properties.

Operating Transfers - Legally authorized inter-fund transfers from the fund receiving revenue to the fund making the expenditure.

Studies Positions – 2019 Supplemental Request to Fund identified department positions in Public Works, Human Resources and Communication & Engagement, funding to be distributed to appropriate departments.

Sundry – Includes miscellaneous expenditure categories such as collection services contracts and contingency.

Additional Expenditures – Includes varying or one-time expenditures. 2019 Actual expenditures included unemployment compensation, short term disability, historic presidential building refund, Rangeview HOA, and improvements to district 464 expenses. In the 2020 budget funds were allocated towards short term disability, unemployment compensation, and economic incentive agreements. Part of the 2021 budget includes funds for unemployment compensation.

NON-DEPARTMENTAL

CONTINUED

2022 BUDGET INCREASE REQUESTS

FUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
ASSESSMENT & COMPENSATION IMPLEMENTATIONS	NON-DEPARTMENTAL	\$ 1,500,000
DEPARTMENT EMPLOYEE ENGAGEMENT	NON-DEPARTMENTAL	85,000
ORGANIZATIONAL SUPPORT	NON-DEPARTMENTAL	30,000
TOTAL FUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 1,615,000

FUNDED: GENERAL FUND, ONE-TIME REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
PROGRAM MANAGEMENT	NON-DEPARTMENTAL	\$ 3,000,000
EQUIPMENT REPLACEMENT FUNDING	NON-DEPARTMENTAL	500,000
YEAR-END AUDIT & FINANCIAL REPORT PREPARATION SERVICES	NON-DEPARTMENTAL	250,000
OFFICE OF HUMAN AFFAIRS CONTRACT	NON-DEPARTMENTAL	151,598
POLICE ASSESSMENT	NON-DEPARTMENTAL	150,000
COMMUNITY DEVELOPMENT & ECONOMIC HEALTH & HOUSING ASSESSMENTS	NON-DEPARTMENTAL	140,000
INFORMATION TECHNOLOGY ASSESSMENT	NON-DEPARTMENTAL	100,000
TOTAL FUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 4,291,598

UNFUNDED: GENERAL FUND, ONGOING REQUESTS

REQUEST	DEPARTMENT	EXPENDITURE
OFFICE OF ENGINEERING & CAPITAL PROJECTS DIRECTOR	NON-DEPARTMENTAL	\$ 225,056
OFFICE OF GOVERNMENTAL AFFAIRS DIRECTOR	NON-DEPARTMENTAL	185,873
TOTAL UNFUNDED: GENERAL FUND, ONGOING REQUESTS		\$ 410,929

UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS

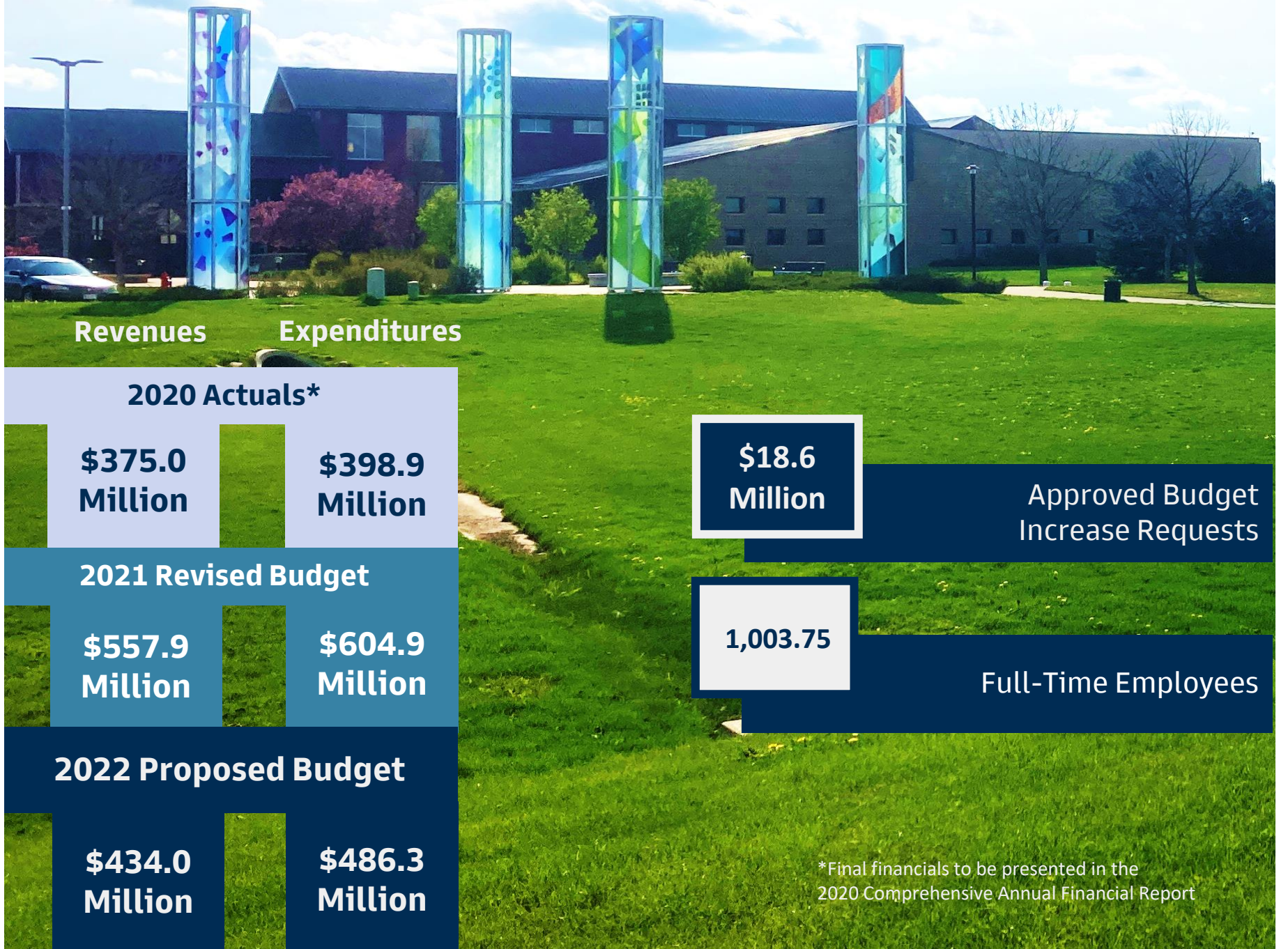
REQUEST	DEPARTMENT	EXPENDITURE
CITY CLERK'S OFFICE ASSESSMENT	NON-DEPARTMENTAL	\$ 60,000
TOTAL UNFUNDED: GENERAL FUND, ONE-TIME REQUESTS		\$ 60,000





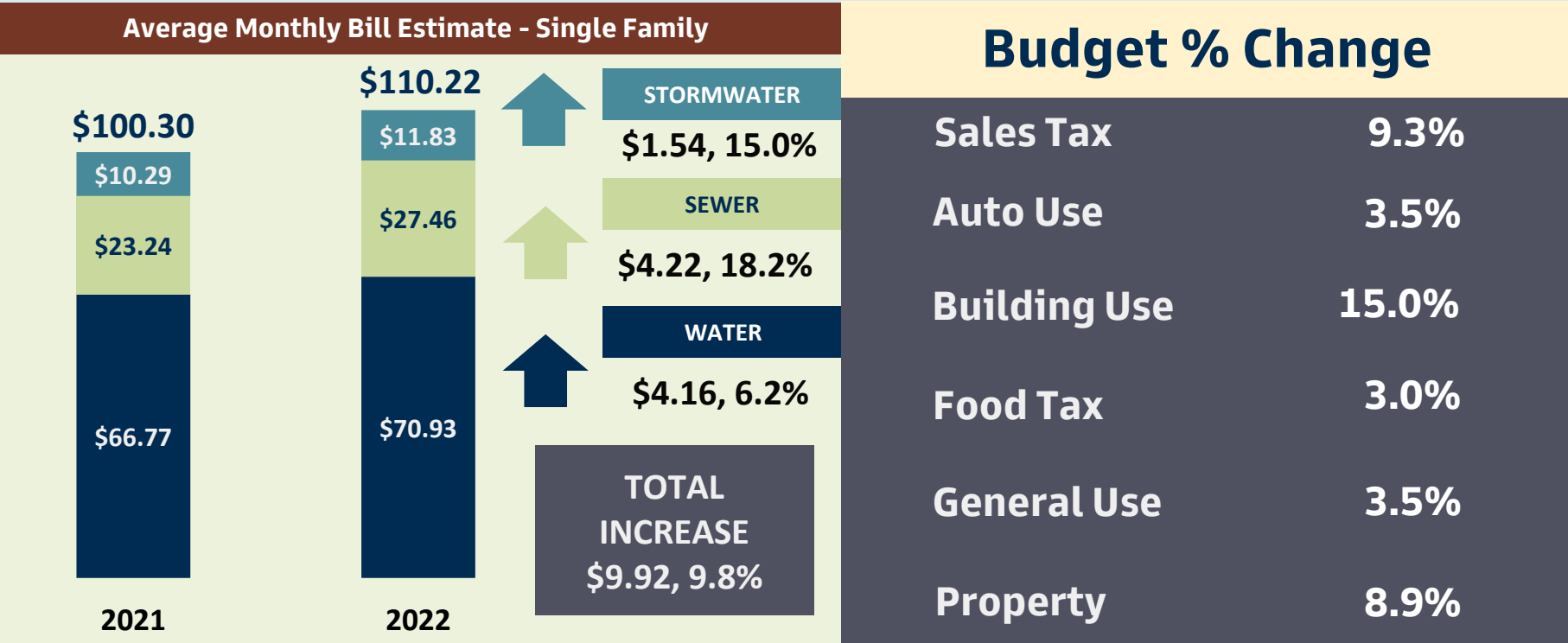
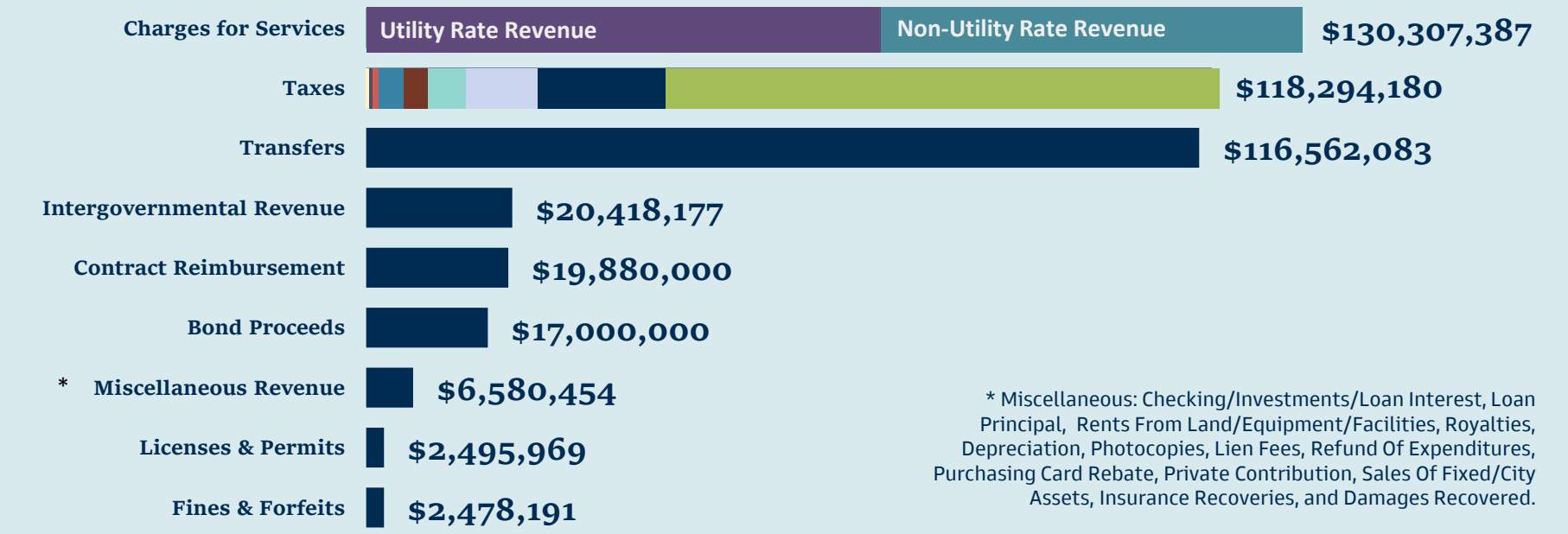
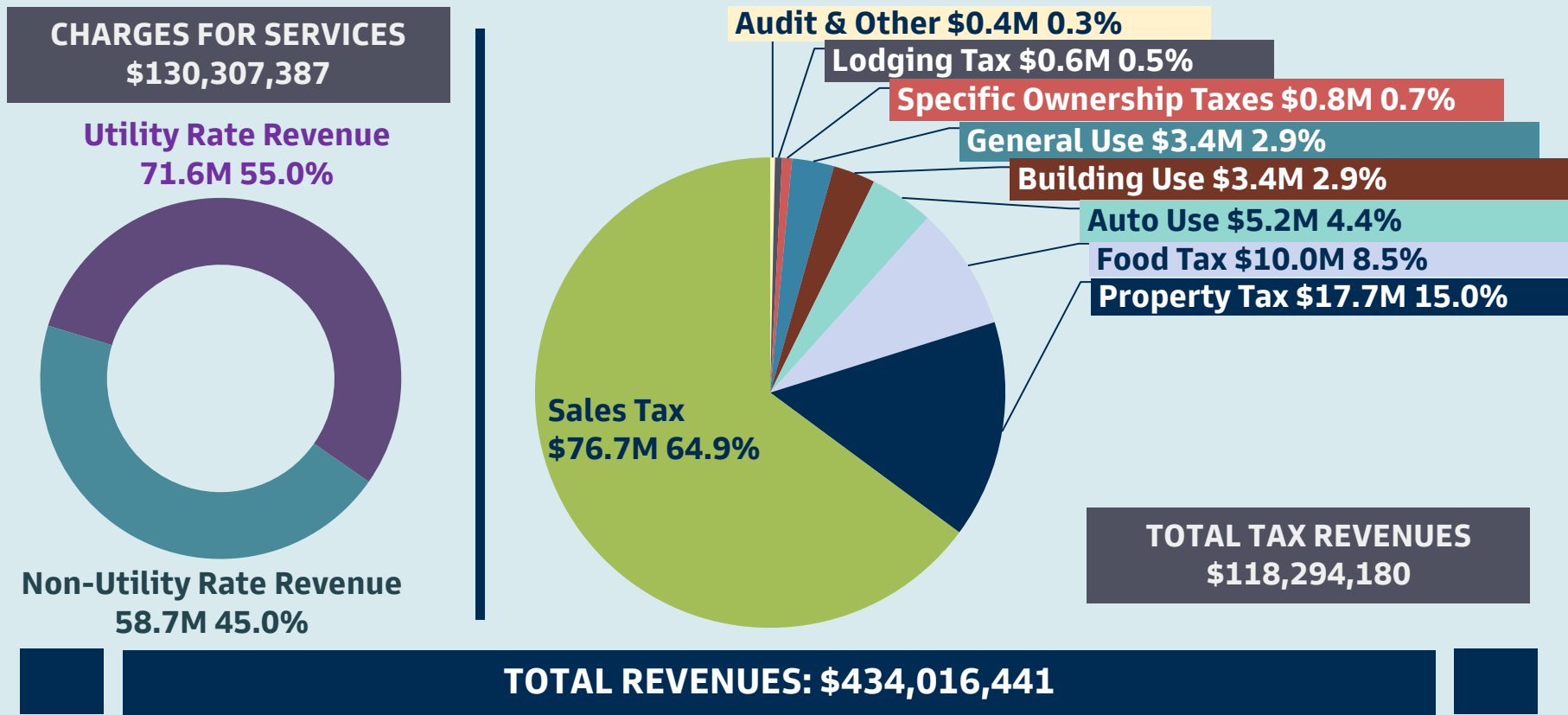
2022

BUDGET AT A GLANCE



REVENUES

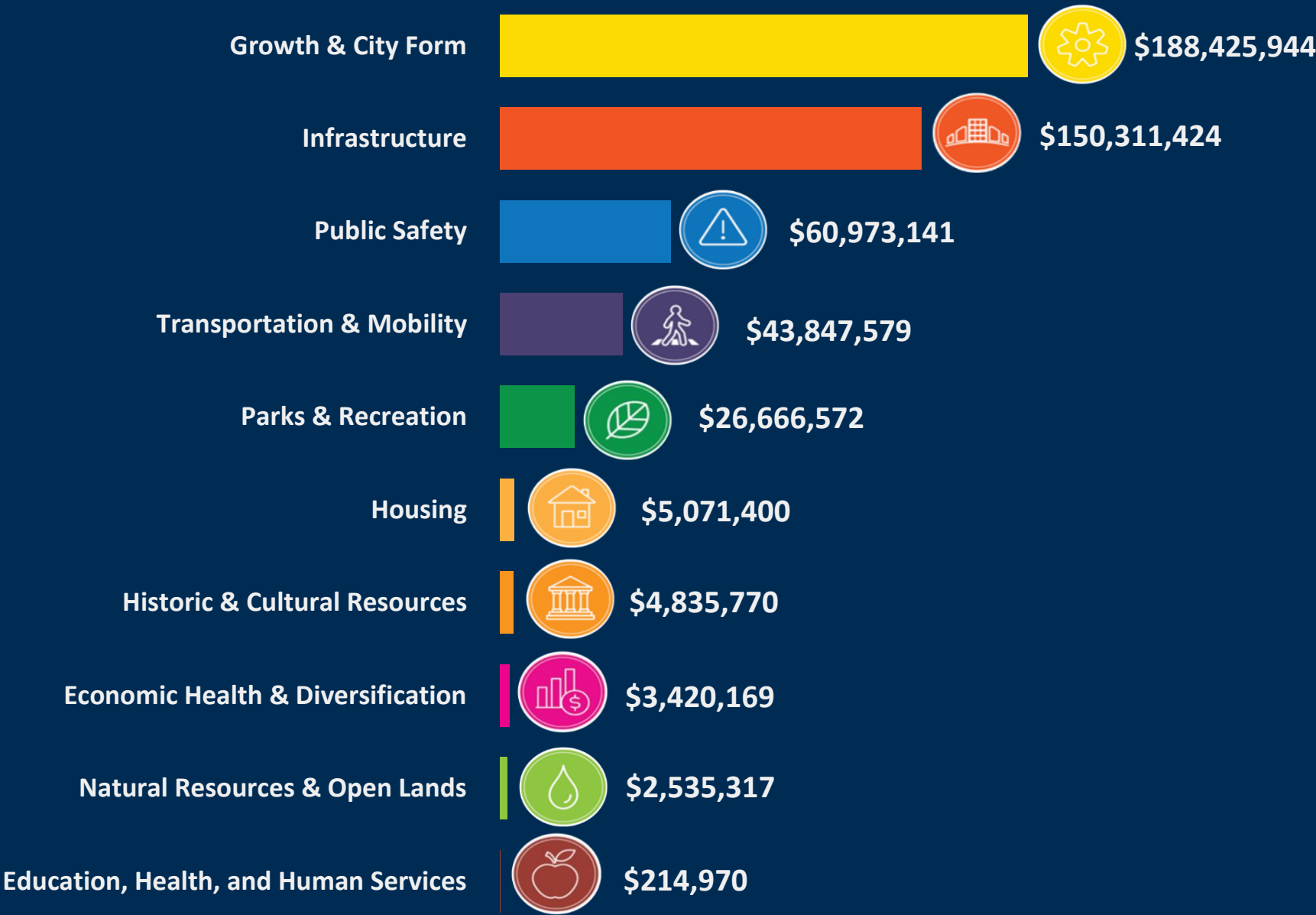
Total Revenues
\$434,016,441



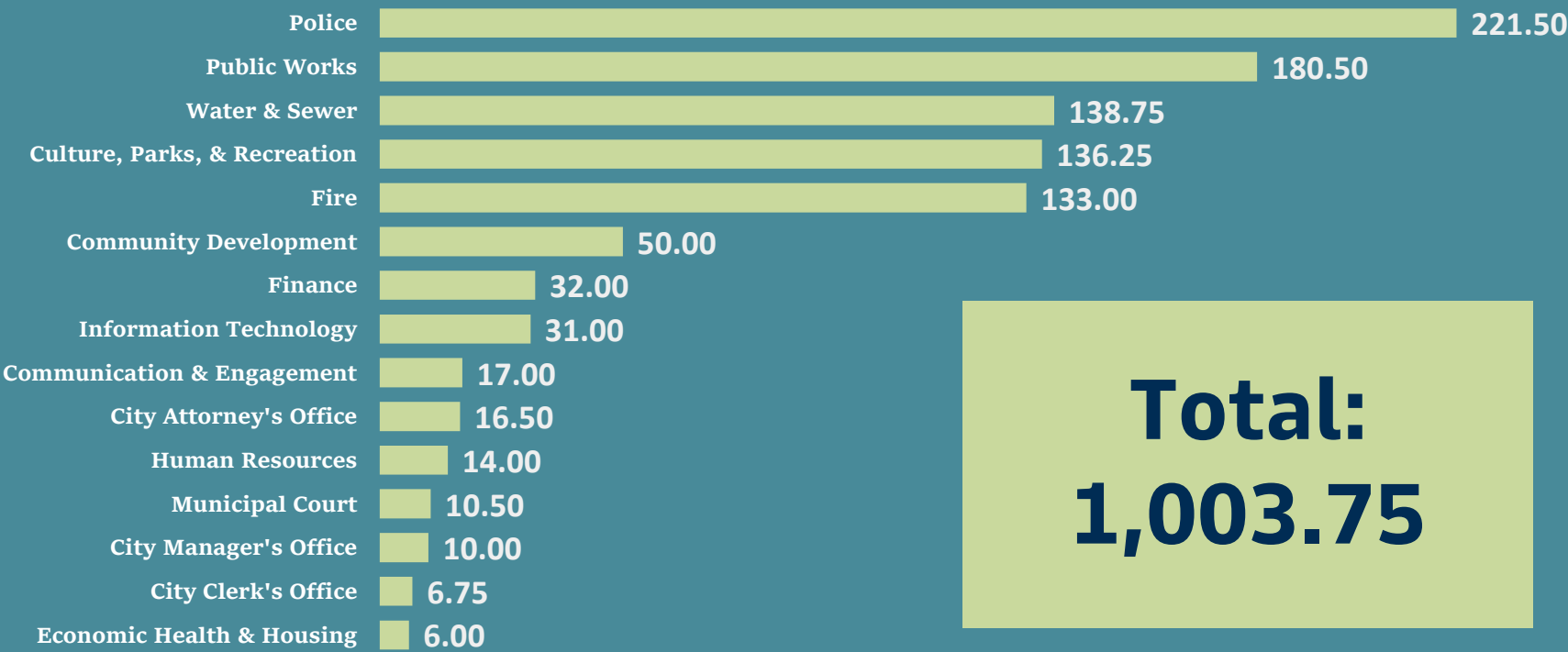
EXPENDITURES

Total Expenditures
\$486,302,286

Comprehensive Plan



City Full-Time Equivalent Distribution



CAPITAL IMPROVEMENT PROJECTS

Total Expenditures
\$159,817,021

Food Tax Highlights

Total: \$9,851,489

Quality of Life Highlights

Total: \$6,547,311

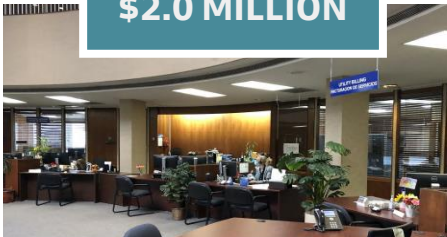
**Supported also w/General Fund Dollars*

\$1.4 MILLION



Irrigation System Replacement - Linn Grove Cemetery

\$2.0 MILLION



City Hall Renovation & City Center North Phase 2*
(2023: \$ 7.2 Million)

\$1.5 MILLION



Centennial Park Improvements

\$0.6 MILLION



A Street - New Fleet Building
(2023: \$ 8.1 Million)

Road Development Highlights

Total: \$11,144,560

\$4.3 MILLION



O Street 59th Avenue Intersection Improvement

\$3.8 MILLION



35th Avenue F to O Street
(2023: \$ 3.8 Million)

\$1.1 MILLION



35th Avenue Road Widening: 4th Street to "F" Street

\$1.0 MILLION



Intersection Improvements at 35th Avenue & "O" Street Roundabout

Water Highlights

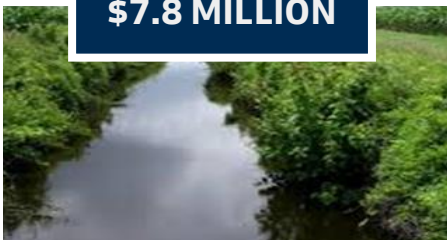
Total: \$79,317,632

\$36.5 MILLION



Terry Ranch Water Development
(2023-2026: \$ 47.5 Million)

\$7.8 MILLION



Future Water Acquisition
(2023-2026: \$ 33.4 Million)

\$5.1 MILLION



Non-Potable Expansion Project
(2023-2026: \$ 22.6 Million)

\$2.8 MILLION



Boyd Water Treatment Plant Process Improvements
(2023-2024: \$ 7.6 Million)

Sewer Highlights

Total: \$8,611,577

\$3.1 MILLION



Wastewater Treatment & Reclamation Facility (WTRF) Generator Replacement

\$0.9 MILLION



General Rehabilitation Projects
(2023-2026: \$ 3.2 Million)

\$11.6 MILLION



12th Street Storm Trunk Line - Phase 1B

\$4.5 MILLION



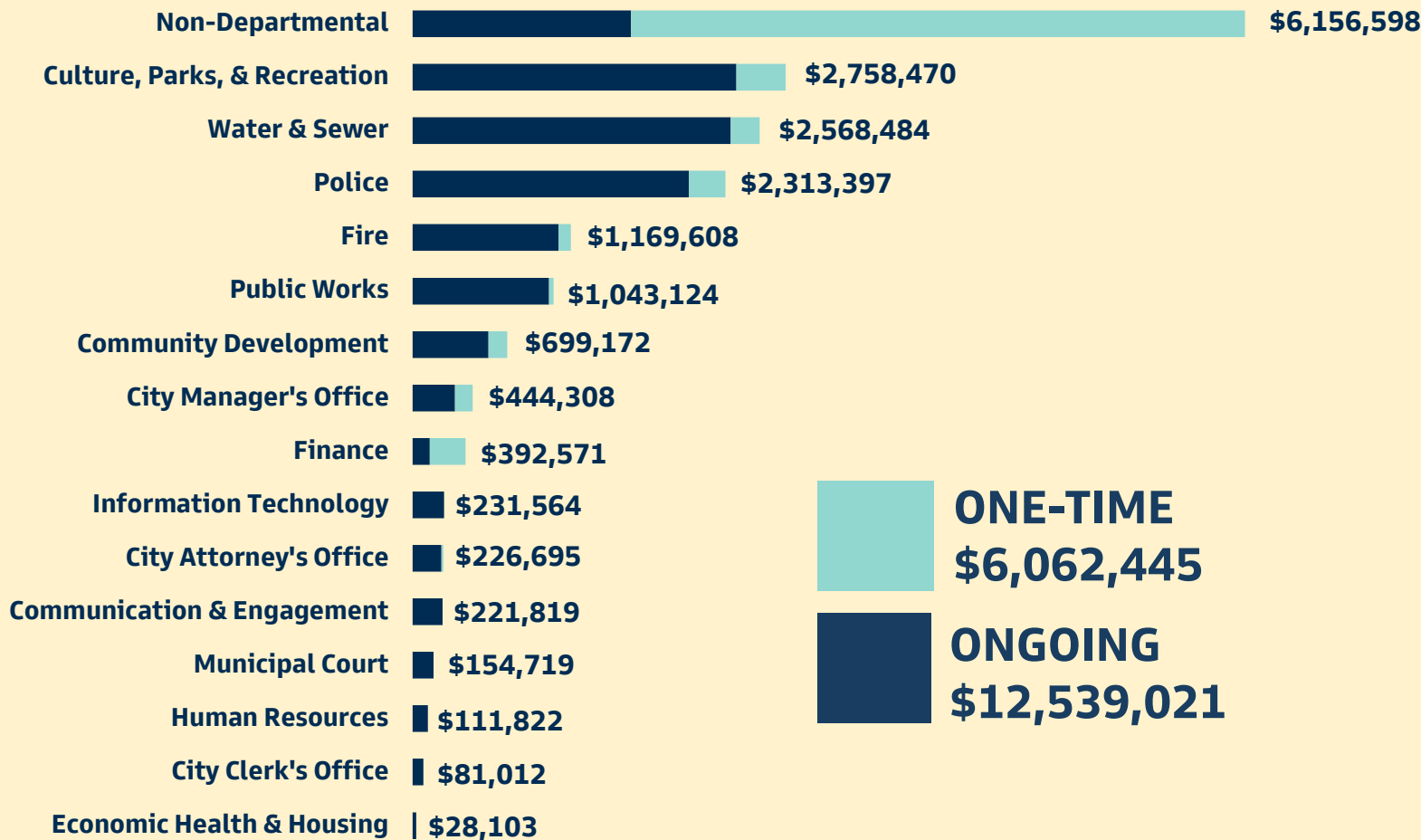
12th Street Storm Trunk Line - Phase 1A

Stormwater Highlights

Total: \$19,578,382

BUDGET INCREASE REQUESTS

Total Increase
\$18,601,466



ONE-TIME HIGHLIGHTS

TEMPORARY POSITIONS

Civil Inspector & 2 Utility Locators for Broadband

EQUIPMENT & CAPITAL PURCHASES

Bestway Fabric Cover
Equipment Replacement Fund
One Fire Vehicle
One Police Vehicle
Police Equipment
Pontoon Boat

ORGANIZATIONAL INVESTMENT

Assessments
Office of Human Affairs Contract
Program Management
Professional Services
Training
Wetland Mitigation & Restoration Feasibility Study

ONGOING HIGHLIGHTS

RESTORING SERVICES

Culture, Parks, & Recreation Facilities & Services

INVESTMENT IN STAFF

Fire & Police Union Increase; Non-Union Salary Increase

NEW POSITIONS

Assistant City Manager
Bellvue Maintenance Mechanic
Civil Engineers (2)
Code Compliance Inspector
Computer Technician
Court Marshal
Customer Service Representative
Engineering Concrete Technician
Equipment Maintenance Mechanic
Paralegal
Plant Operators (5)
Police Officers (2)
Recreation Coordinator II
Support Services Assistant Division Chief
Utility Locator
Water Quality Analyst
Water Quality & Regulatory Compliance Manager
Web Developer

ORGANIZATIONAL INVESTMENT

Assessments / Compensation & Class Studies
Public Safety: Co-Responder Agreement, Body Worn Cameras,

2022 BUDGET AT A GLANCE



COUNCIL MEMBERS

MAYOR ■ JOHN GATES
WARD I ■ TOMMY BUTLER
WARD II ■ BRETT PAYTON
WARD III ■ MICHAEL FITZSIMMONS
WARD IV ■ DALE HALL
AT LARGE ■ KRISTIN ZASADA
AT LARGE ■ ED CLARK

City Council Formal 2022 Budget Action/Adoption Meeting Dates

October 5th, 2021
Public Hearing & First Reading

October 19th, 2021
Public Hearing & Final Adoption

ADDITIONAL BUDGET DOCUMENTATION AVAILABLE:

GREELEYGOV.COM/GOVERNMENT/FINANCE/BUDGET

- **BIENNIAL/ANNUAL BUDGET BOOKS**
- **CAPITAL IMPROVEMENT PLANS**
- **FEE DIRECTORY**
- **REVENUE ESTIMATES**



Robert Miller

- Budget & Compliance Manager ■
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Oct 5th, 2021
First Reading

2022 Proposed Budget Summary



Forecast Considerations

- “Cautious yet confident”
- Revenue grew through 2021
- Not yet at pre-pandemic levels
- Reserves are strong

\$9.8 million revenue growth forecast for 2022:

- \$5.9 million in sales and use tax
- \$1.4 million in property tax
- \$2.4 million in other revenue streams

Upside Risk

- Pandemic ends
- Economic recovery strengthens
- Employment recovery and growth
- Greeley housing outperforms forecast

Baseline Forecast

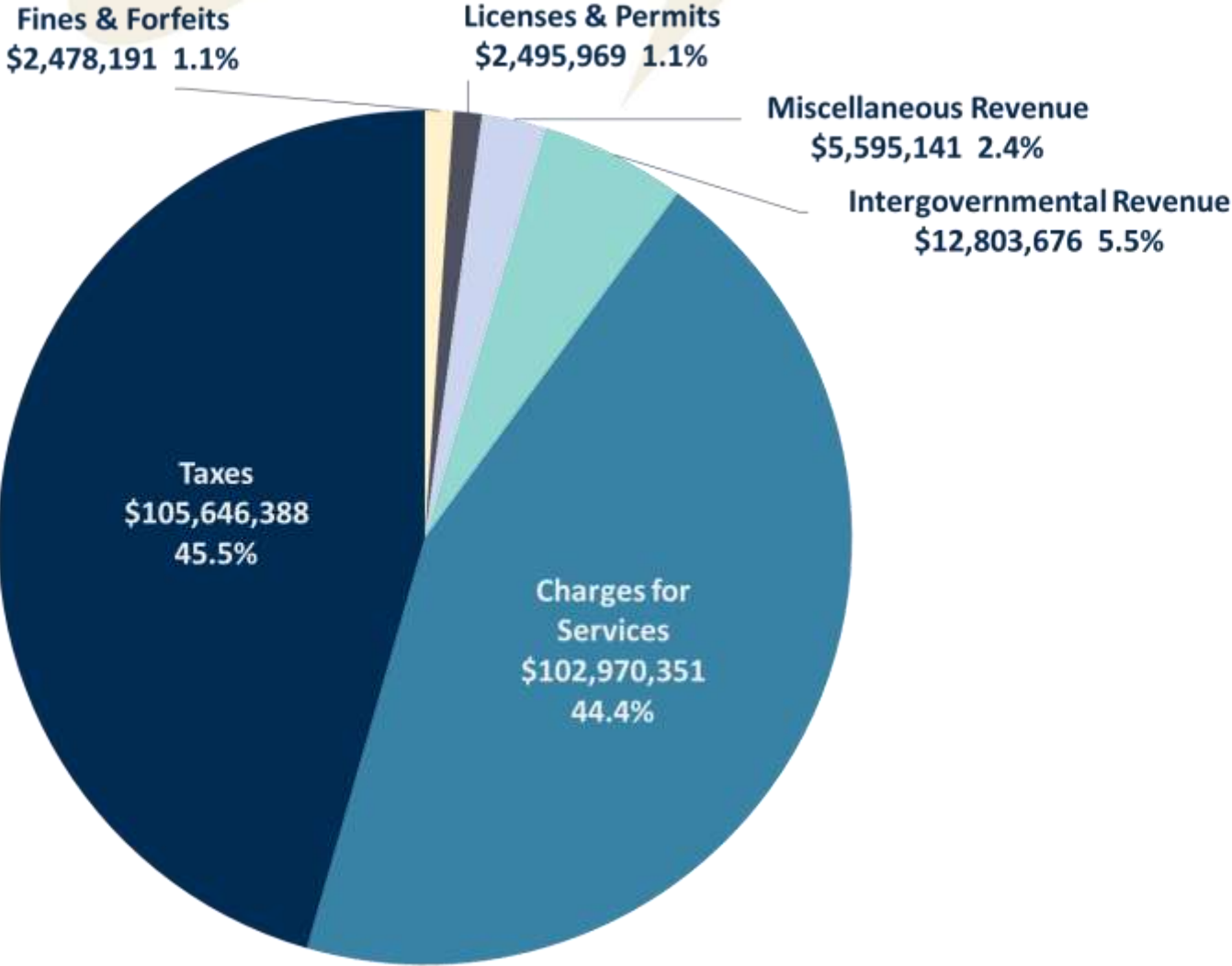
- COVID lingers but vaccine reduces impact
- Oil and gas revenue continues volatility
- Federal stimulus dollars
- Potential sales tax revenue increases

Downside Risk

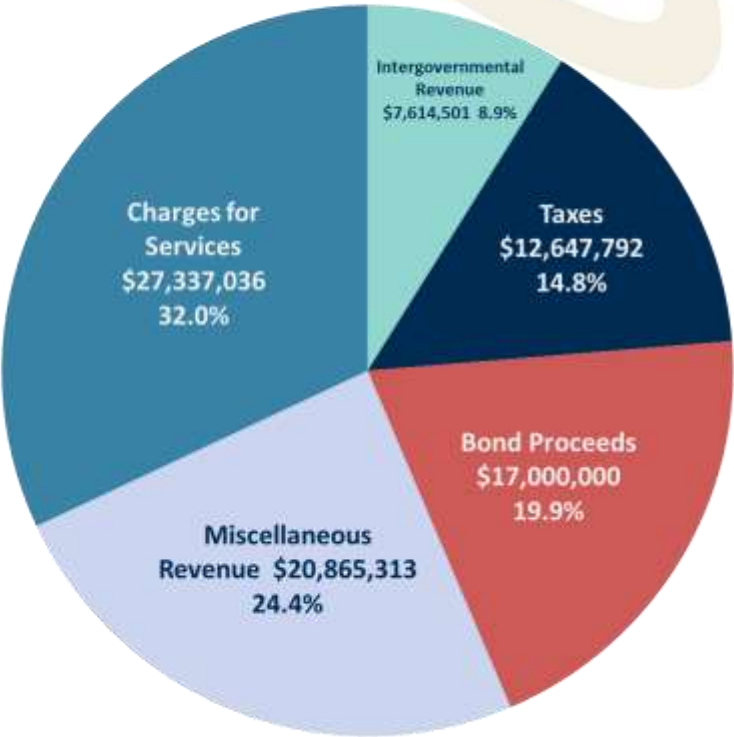
- COVID variant harms economic activity
- Housing growth falls below forecast
- Changes in employment numbers/growth

2022 Forecasted Revenue

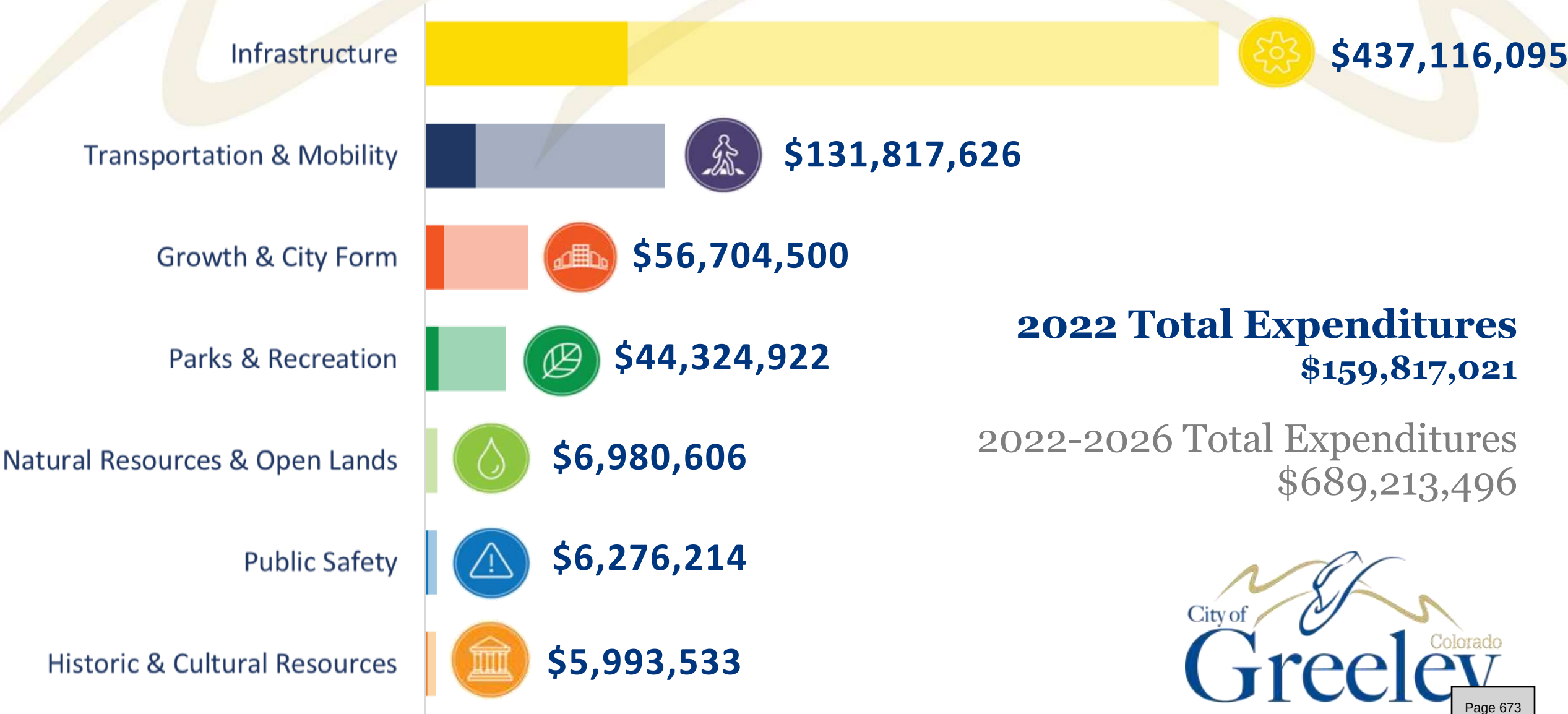
Operating, \$231,989,716



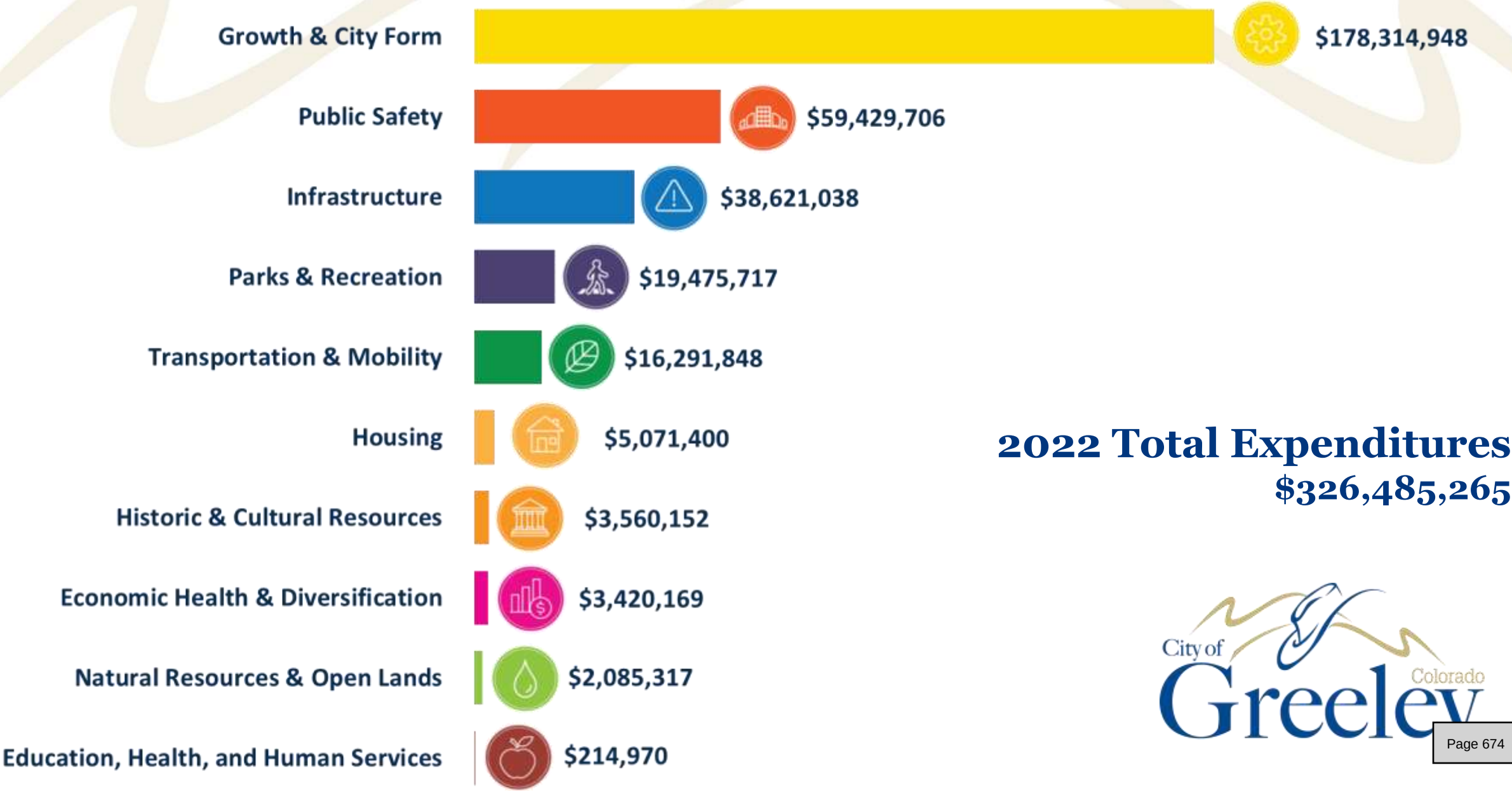
Capital, \$85,464,642



2022-2026 CIP Budget Comprehensive Plan Categories



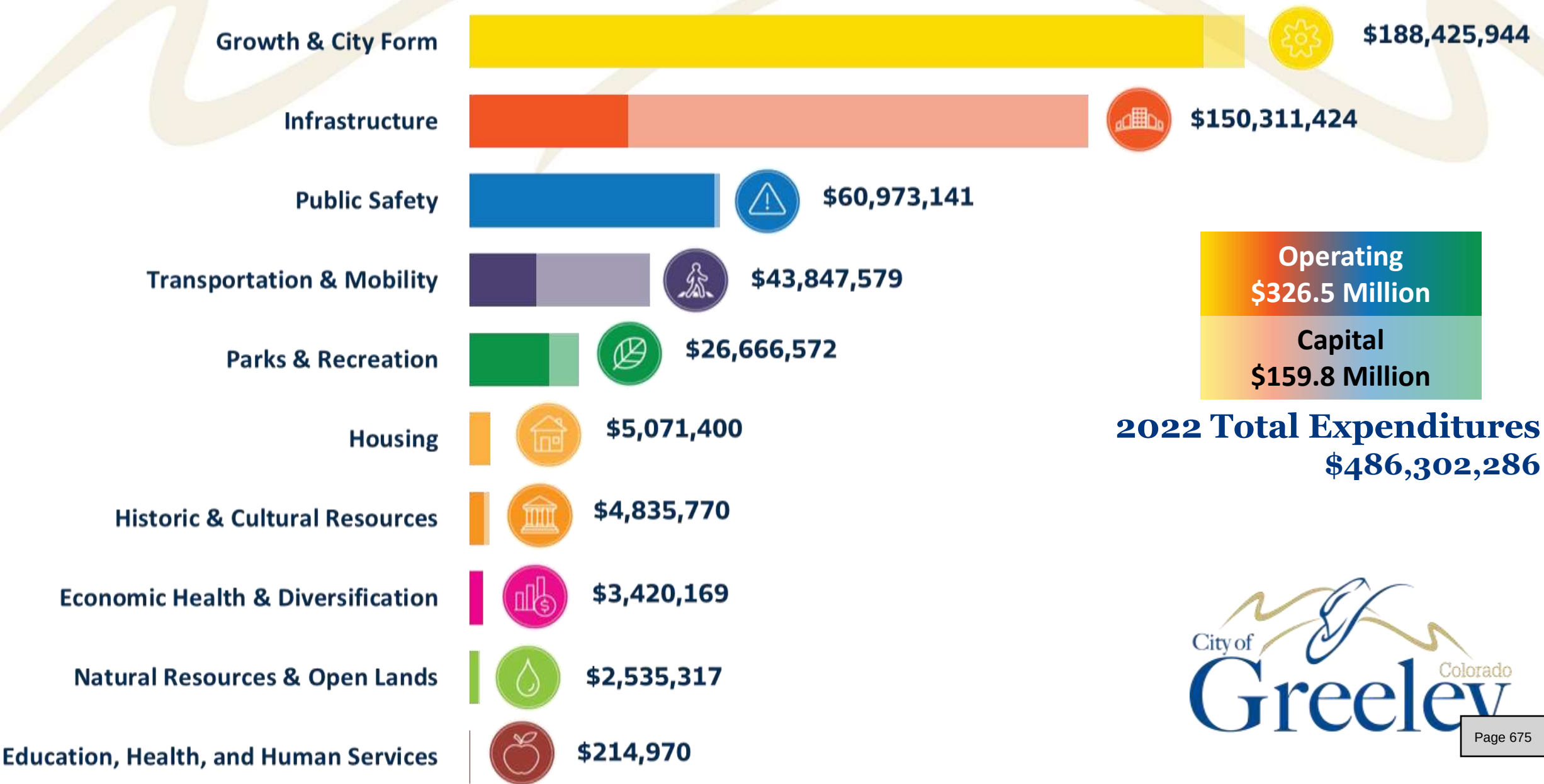
2022 Operating Budget Comprehensive Plan Categories



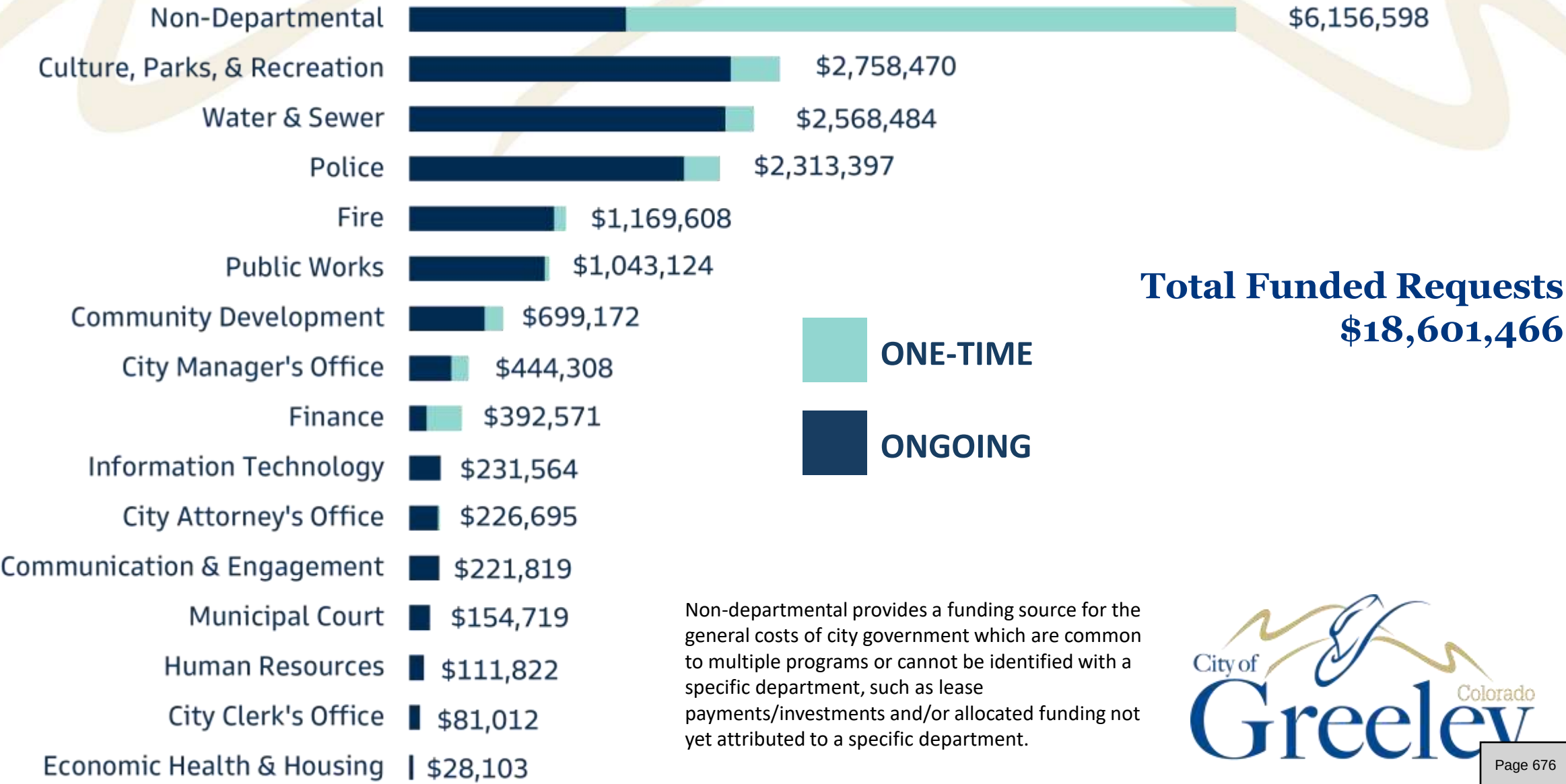
2022 Total Expenditures
\$326,485,265



2022-2026 Total Budget Comprehensive Plan Categories

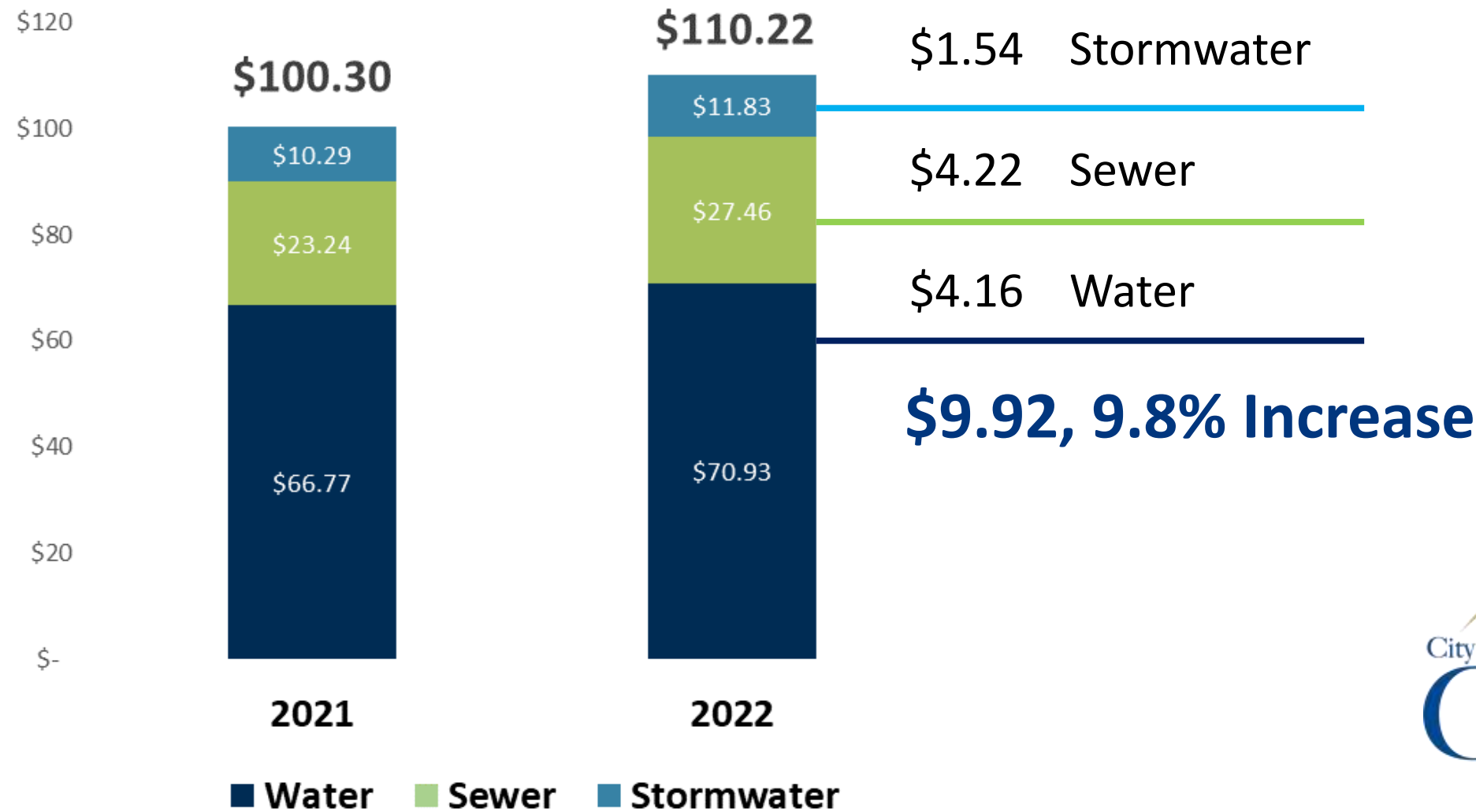


2022 Budget Increases: Department



Utility Rate Changes

Average Monthly Bill Estimate - Single Family



Looking Forward

Budget Recap

- Operating budget proposal of \$326,485,265
- Capital Improvement budget proposal \$159,817,021
- Total Budget Proposal \$486,302,286
- 2022 budget maintains strong reserves
- Utility rates remain competitive
- Revenues continue in upward trajectory

City Council Formal 2022 Budget Action/Adoption Meeting Dates

- October 5, 2021 | Public Hearing / First Reading
- October 19, 2021 | Public Hearing / Final Adoption

Questions

Council Agenda Summary

October 5, 2021

Agenda Item Number

Key Staff Contact:

Maria E. Gonzalez Estevez, Human Resources, Phone 970-888-1857

Title:

Public hearing and final reading of an ordinance ratifying and adopting the Collective Bargaining Agreement between the Greeley Fire Fighters Union, International Association of Fire Fighters Local 888 and the City of Greeley, which agreement by its terms is for a period commencing December January 1, 2022 through December 31, 2023

Summary:

The City of Greeley and the Greeley Fire fighters Union International Association of Firefighters Local 888 have negotiated a tentative agreement for a two-year contract for the period of January 1, 2022 to December 31, 2023. The terms and duration of the contract were developed taking into account the City's financial situation and financial outlook, including consideration of the economic and financial uncertainties and complications created by the COVID-19 pandemic. The highlights of the tentative agreement are summarized below:

- **ARTICLE XIII regarding salary has been amended to provide for wage increases of 6% in the first year, and 3.75% in the second year.**
- **Article XIII regarding wages has been amended to provide a 2% bonus to Fire Fighters. This bonus payment will be based on the Fire Fighters current salary.**
- **Article XII regarding holidays has been amended to add Martin Luther King, Jr. day as a paid holiday for Fire Fighters.**
- **Article XXIII regarding the term of agreement has been amended to provide for a 2-year term. The agreement will be effective from January 1, 2022 to December 31, 2023.**

The tentative agreement was presented to the Greeley Fire fighters Union local membership and was approved by a vote of 82 in favor and 5 opposed amongst a total membership of 115.

The tentative agreement is presented to the City Council for its consideration and approval.

Fiscal Impact:

Does this item create a fiscal impact on the City of Greeley?	Yes
If yes, what is the initial, or, onetime impact?	Onetime 2% Bonus in 2021 \$249,718

What is the annual impact?	Annual Increases : 2022 - \$928,983 (6.0%) 2023 - \$839,298 (3.75%) Total Two Year Contract Cost \$2,996,893
What fund of the City will provide Funding?	General Fund
What is the source of revenue within the fund?	
Is there grant funding for this item?	No
If yes, does this grant require a match?	
Is this grant onetime or ongoing?	
Additional Comments:	

Legal Issues:

Consideration of this matter is a legislative process which includes the following public hearing steps:

- 1) City staff presentation
- 2) Council questions of staff
- 3) Public input
- 4) Council discussion
- 5) Council decision

Other Issues and Considerations:

None.

Strategic Work Program Item or Applicable Council Priority and Goal:

Safety: Manage the health, safety and welfare in a way that promotes a sense of security and well-being for residents, businesses and visitors.

Infrastructure & Growth: Establish the capital and human infrastructure to support and maintain a safe, competitive, appealing and successful community.

Decision Options:

1. Adopt the ordinance as presented; or
2. Amend the ordinance and adopt as amended; or
3. Deny the ordinance ; or
4. Continue consideration of the ordinance to a date certain.

Council's Recommended Action:

A motion to adopt the ordinance and publish with reference to title only.

Attachments:

Fire Collective Bargaining Agreement 2022-2023

Draft Ordinance

Staff Presentation

**CITY OF GREELEY, COLORADO
ORDINANCE NO. __, 2021**

AN ORDINANCE RATIFYING AND ADOPTING THE COLLECTIVE BARGAINING AGREEMENT BETWEEN THE GREELEY FIRE FIGHTERS UNION AND THE CITY OF GREELEY, COLORADO, WHICH AGREEMENT BY ITS TERMS IS FOR A PERIOD COMMENCING JANUARY 1, 2022 THROUGH DECEMBER 31, 2023.

BE IT ORDAINED BY THE CITY COUNCIL OF GREELEY, COLORADO:

Section 1. The City Council ratifies and adopts the Collective Bargaining Agreement between the City of Greeley and the Greeley Fire Fighters Union which agreement by its terms is for the period commencing January 1, 2022 through and including December 31, 2023. A copy of the contract is attached hereto and incorporated herein as Appendix A.

Section 2. The ordinance shall become effective five (5) days after its final publication.

PASSED AND ADOPTED, SIGNED AND APPROVED THIS_ DAY OF October, 2021.

ATTEST:

THE CITY OF GREELEY, COLORADO

CITY CLERK

By: _____
MAYOR

COLLECTIVE BARGAINING AGREEMENT
BETWEEN
GREELEY FIRE FIGHTERS UNION
INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS
LOCAL 888
AND
CITY OF GREELEY
JANUARY 1, 2022 - DECEMBER 31, 2023

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ARTICLE I PREAMBLE

The purpose of this Agreement is to promote and ensure harmonious relations, cooperation, and understanding between the City of Greeley and members of the Greeley Fire Department who are represented by Local 888 of the International Association of Firefighters; and to provide a workable process for equitable and peaceful adjustments of differences which may arise concerning compensation, hours, working conditions, grievance procedures, collection of dues or fees, and other terms and conditions of employment.

ARTICLE II RECOGNITION

The City of Greeley, hereinafter referred to as "City", recognizes Local 888, International Association of Fire Fighters, hereinafter referred to as "Union", as the exclusive bargaining agent for purposes of this Agreement. All sworn Fire Fighters of the Greeley Fire Department, except the ranks of Chief and Division Chief, shall be covered by this Agreement.

Whenever the term "shift personnel" is used, the reference applies to Fire Fighters assigned to work twenty four-hour shifts. Whenever the term "day personnel" is used, the reference applies to Fire Fighters assigned to work forty hour work weeks.

ARTICLE III NONDISCRIMINATION

There shall be no coercion, intimidation, or discrimination on the part of either the City, the Union, or their respective agents against any employee covered by this Agreement which would violate applicable laws because of age, race, creed, color, sex, ancestry, religion, national origin, or disability.

ARTICLE IV RIGHTS OF MANAGEMENT

SECTION 1. Except as otherwise specifically provided in this Agreement, the City has the sole and exclusive right to exercise all the rights or functions of management, and that exercise of any such rights or functions shall not be subject to any grievance procedure, except as to resolution of whether or not a specific matter is a management right. The exercise of the rights of management will be consistent with the overall goals and objectives of City of Greeley and of the Fire Department administration. The below enumerated rights of management are not all-inclusive, but indicate the type of matters or rights which belong or are inherent to management. Any of the rights, powers and authority the City had prior to entering into this Agreement are retained by the City, and nothing in this Agreement shall be construed as delegating to others the authority vested by law in the corporate authority of the City and its duly elected or appointed officers or in any way abridging or reducing such authority or infringing upon the responsibility thereof to the people of this City, except as expressly provided for in this Agreement. Without limiting the generality of the foregoing, as used herein, the term "Rights of Management" includes:

- a) the determination of Fire Department mission and policy including the right to manage the affairs of the Fire Department in all respects;
- b) the right to assign working hours including overtime;
- c) the right to establish, modify, or change work schedules, staffing of equipment, amount of equipment in the main or reserve fleet, and number of personnel to carry out its mission, etc.;
- d) the right to assign Fire Fighters to other duties within the Fire Department when their equipment is out of service;
- e) the right to direct the members of the Fire Department, including the right to hire, promote, transfer, discipline, and discharge any Fire Fighter for just cause;
- f) the organizational structure of the Fire Department including the right to organize and reorganize the Fire Department in any manner it chooses, including the size of the Fire Department and the determination of the job classifications and ranks based upon duties assigned;
- g) the determination of the safety, health, and property protection measures for the Fire Department;
- h) the allocation and assignment of work to Fire Fighters within the Fire Department;
- I) the determination of policy affecting the selection or training of new employees;
- j) the determination of policy affecting the on-going training and certification of Fire Fighters;
- k) the scheduling of operations;
- l) the establishment, amendment and enforcement of Fire Department rules, regulations, and orders;
- m) the transfer of work from one position to another within the sworn Fire Fighter positions of the Greeley Fire Department;
- n) the introduction of new, improved or different methods and techniques of operation of the Fire Department or a change in existing methods and techniques;
- o) the placing of service, maintenance or other work with outside contractors or other agencies of the City;

- p) the determination of the number of ranks and number of Fire Fighters within each rank;
- q) the determination of the amount of supervision necessary;
- r) the transfer of Fire Fighters from one division, shift or station to another.

SECTION 2. The provisions of this Agreement do not prohibit the City from directing any person not covered by this Agreement from performing any task.

SECTION 3. The City of Greeley has the authority to determine the purpose and mission of the Greeley Fire Department and the amount of budget adopted thereto.

ARTICLE V LABOR MANAGEMENT COMMITTEE

SECTION 1. The City and the Union agree to establish a Labor Management Committee. The committee will consist of at least one and no more than three (3) representatives of the Union, as elected by Union members, with the same number of management representatives, as designated by the Fire Chief. The purpose of these meetings will be to discuss matters and objectives of mutual concern not involving grievances or specific employee disciplinary matters.

SECTION 2. Meetings will be scheduled every other month at times mutually agreed upon. By mutual consent meetings can be scheduled more frequently. If meetings are scheduled when a representative(s) is on duty, arrangements will be made to allow all such representative(s) to attend such meetings on duty time. Attendance at meetings scheduled when a representative(s) is not on duty is voluntary.

ARTICLE VI UNION ACTIVITY AND COLLECTION OF DUES OR FEES

SECTION 1. The parties agree that membership in the Union will be on a voluntary basis on the part of each Fire Fighter. No Fire Fighter shall be required to become or remain a member of the Union as a condition of employment.

SECTION 2. Neither the City nor the Union, its officers, agents, representatives or members will intimidate, interfere with or coerce either Union or Non Union Fire Fighters. Union activity or Union business of any kind can only be carried on during working hours with the written permission in advance from the Fire Chief. Failure of the City to enforce any of the provisions of this section, for any reason, on any one or more instances shall not be considered a waiver of any of its provisions.

SECTION 3. The City will accept a signed dues or fees deduction authorization, by any member of the bargaining unit covered by this Agreement as equivalent to a continuing voucher by such member of the bargaining unit in the amount of established monthly dues or fees required by the Union (certified by the Treasurer of the Local Union as the proper amount). Such authorization shall remain in effect unless revoked by the Fire Fighter in writing by sending written notification by certified mail to the City

with a copy of such notification sent by certified mail to the Union.

SECTION 4. The deduction of Union dues or fees shall be made on each paycheck following the pay period in which the authorization was received. The deductions provided herein shall be remitted to the Treasurer of the Union no later than five working days following the payment date in which deductions were made and shall include all deductions made in that period. The City shall furnish, upon request of the Union Treasurer, a deduction listing.

SECTION 5. The City agrees to grant time off to one of the two principle officers, Union President or Union Secretary, to attend the monthly meetings of the Local. The Union agrees to give a minimum of seven (7) calendar days advance notice to the Fire Chief or the Chief's designee. This provision will only be allowed if the Department is not at the minimum staffing level at the time of the absence of the individual.

SECTION 6. The Union shall indemnify the City and hold it harmless against all claims, demands, suits, or any other forms of liability that shall arise out of or by reason of, any action taken by the City for the purpose of complying with the provisions of this Agreement unless such loss or damage is intentionally caused or contributed to by the action of the City.

SECTION 7. The Union expressly herein agrees that it will not institute or participate in, except as a co-defendant or a co-plaintiff with the City, any claim, lawsuit or other legal proceeding, challenging the language of this Agreement as being violated or void under law.

The Union further expressly herein agrees that in the event that any claim, lawsuit or legal proceeding is filed or commenced by any member or members of the Bargaining Unit, acting on their own personal behalf and not on behalf of the Union, challenging the language of this Article as being violative or void under law, the Union shall join with the City in defending, as a party defendant, the provisions and language of this Article. The City and the Union will pay their own defense costs in such a litigation.

ARTICLE VII NO STRIKE CLAUSE

SECTION 1. During the life of this Agreement or any written extension hereof, the Union, on behalf of its officers, agents and members agree that so long as this Agreement or any written extension hereof is in effect, neither the bargaining representative nor the Fire Fighters nor any person acting in concert with them will cause, sanction, promote, or take part in any strike (economic, sympathy, unfair labor practice, or otherwise), walkout, sitdown, slowdown, stoppage of work, abnormal absenteeism, or withholding of services.

SECTION 2. Any employee who violates this provision shall be subject to disciplinary action, including discharge, and such action shall not be raised as a grievance or be subject to the arbitration provision of this Agreement.

SECTION 3. In the event of a strike in violation of this Agreement, the City shall have the right to permanently replace any employee on strike. In the event an employee is continued in employment

after the termination of a strike in violation of this Agreement, such employee shall neither be entitled to any fringe benefit contained in this Agreement nor any accrual thereof during the period of such strike, nor shall the Fire Fighter, for the duration of the strike, accumulate seniority or length of service for any purpose under this Agreement.

SECTION 4. Claims or suits for damages filed by either party resulting from a violation of this Article shall not be subject to the mandatory arbitration provisions set forth in this agreement.

SECTION 5. In the event of violation of this Article by an official action of the Union, the City has the exclusive option to rescind this entire Agreement or any part thereof.

ARTICLE VIII LAYOFF AND RECALL PROCEDURES

SECTION 1. For purposes of this Agreement, "continuous service" shall mean the period of continuous employment in the Fire Department from the most recent date of hire without a break or interruption; provided that any suspension for disciplinary purposes or absences on authorized leave without pay shall not constitute a break or interruption of service so long as it does not exceed 30 calendar days. A list of Fire Fighters arranged in order of continuous service shall be made available for examination at the end of each calendar year. Where two or more Fire Fighters were appointed on the same date, their continuous service standing shall be determined in the order of their rank on the eligibility list from which they were hired.

SECTION 2. The City in its sole discretion shall determine whether layoffs are necessary. Although not limited to the following, layoffs shall ordinarily be for lack of work and/or lack of funds. If it is determined that layoffs are necessary, Fire Fighters will be laid off in accordance with their continuous service. Fire Fighter(s) with the least continuous service will be laid off first.

SECTION 3. No later than thirty (30) calendar days prior to the effective date of such a layoff, the City shall provide the Union a statement of the reasons necessitating the layoff. The individuals selected for layoff will be notified fourteen (14) calendar days before the actual layoff. The notice periods referenced by this section may run concurrently.

SECTION 4. In the event that positions with a higher classification than Firefighter are reduced in force, employees in such reduced classifications with the least continuous service in that classification shall be allowed to displace (bump) Fire Fighters in a lower classification. The salary for the Fire Fighter who has exercised bumping rights shall be reduced to the respective salary schedule. Fire Fighters shall be eligible to exercise bumping rights in reverse order of their length of service in the classification. The Fire Fighter exercising bumping rights shall maintain and continue to accrue seniority as though the reduction in force had not occurred.

SECTION 5. Fire Fighters who are laid off shall be placed on a recall list for a period of three (3) years. If there is a recall, Fire Fighters who are still on the recall list shall be recalled, in the inverse order of their layoff, provided they are presently qualified to perform the work in the job classification to which they are recalled.

Fire Fighters recalled under this section shall not be required to take a written examination or participate in an oral interview but will be required to maintain certifications and may be required to successfully complete the medical screening and background portions of the screening process.

SECTION 6. Notice of recall for a Fire Fighter who is eligible for recall shall be sent to the Fire Fighter and the local president by registered mail. Fire Fighters must notify the Fire Chief of their intention to return to work within seven (7) calendar days after the notice of recall is mailed by the City. If the Fire Fighter fails to be available to return to work within fourteen (14) calendar days after notifying the Fire Chief of intent to return to work, the Fire Fighter shall be deemed to have resigned.

The City shall be deemed to have fulfilled its obligations by mailing the recall notice by registered mail, return receipt requested, to the mailing address provided by the Fire Fighter. It is the responsibility of the Fire Fighter to provide the Fire Chief with a current mailing address.

No new employees shall be hired into a classification until all employees who are on a lay-off status from that classification have been offered recall.

ARTICLE IX GRIEVANCE PROCEDURE FOR AGREEMENT VIOLATIONS

SECTION 1. A grievance under this Agreement shall be confined to an alleged violation of any express provision of this Agreement except that a grievance of the provisions relating to promotions shall follow the grievance process under Article X. Any Fire Fighter or group of Fire Fighters may discuss any matter informally with their supervisor without invoking the formal grievance procedure provided for in this Article and are encouraged to resolve matters at the lowest level of supervision. No resolution reached via informal discussion may conflict with a term of the contract. Informal resolutions are not binding on the City or the Union.

SECTION 2. Except as otherwise stipulated, a grievant may, upon request, be represented at any level of the grievance procedure by a representative of the grievant, or by legal counsel. The time limit set forth for the processing of grievances shall be strictly adhered to. In the event that a grievance is not appealed to the next step of the grievance procedure within the time limits provided at any step, such grievance shall be declared closed and settled on the basis of the most recent City decision.

In the event of failure to answer a grievance within the time limit provided, it shall be considered a denial and the grievant may appeal the grievance to the next step of the procedure in accordance with the time limitation specified. Extensions of time may be requested by either party, and must be mutually agreed upon by both parties. To be effective, any extension of time must be set forth in writing.

SECTION 3. A grievance must be initiated only by a grievant, it must be signed by all aggrieved Fire Fighters who are to be included in any resolution thereof. The grievant must reduce the entire grievance and all the reasons thereof to writing along with the provisions of this Agreement which are alleged to have been violated. The written grievance must be dated and signed by the grievant and submitted to the Division Chief, or the Division Chief's designee with a copy to the Fire Chief or the

Chief's designee, the City's Attorney, and the City of Greeley Human Resources Director, and the local president within seven (7) calendar days of the date the grievant knew or should have known the facts which gave rise to the grievance.

SECTION 4. The Division Chief or the Division Chief's designee shall meet with the grievant in an effort to resolve the grievance within seven (7) calendar days after being presented with the written grievance. The Division Chief or the Division Chief's designee must respond in writing to the grievant within seven (7) calendar days following the meeting with the grievant.

SECTION 5. If the grievance has not been satisfactorily resolved with the Division Chief, the grievant may appeal the decision to the Fire Chief or the Chief's designee in writing within seven (7) calendar days of receipt of the response of the Division Chief or the Division Chief's designee. Within seven (7) calendar days of receipt of the appeal of the grievance, the Fire Chief or Chief's designee shall discuss the grievance with the grievant. The Fire Chief or Chief's designee must give the grievant an answer in writing within seven (7) calendar days of the holding of such meeting.

SECTION 6. If the grievance is not mutually resolved with the Fire Chief or the Chief's designee, the grievant may appeal the grievance in writing to the City Manager or the City Manager's designee in writing within seven (7) calendar days of receipt of the response from the Fire Chief or the Chief's designee. Within seven (7) calendar days of receipt of the appeal of the grievance, the City Manager or the City Manager's designee shall discuss the grievance with the grievant. The City Manager or the City Manager's designee must give the grievant an answer in writing within seven (7) calendar days of the holding of such meeting.

SECTION 7. If the grievance is not mutually resolved with the City Manager, the Union president must give written notice of intent to seek final and binding arbitration to the City Manager within fourteen (14) calendar days. Within seven (7) calendar days of the written notice of intent to arbitrate, the parties shall attempt to select a neutral arbitrator to hear and determine the dispute. In the event the parties are unable to agree upon a neutral arbitrator, either party or its representative may refer the matter to the American Arbitration Association or the Federal Mediation and Conciliation Service to request a panel of seven (7) arbitrators and the parties shall choose the arbitrator in accordance with the rules of the respective association. The findings of the arbitrator shall be final and binding on all parties concerned.

SECTION 8. The Arbitrator will have the authority to hold hearings and make procedural rules.

SECTION 9. The findings of the Arbitrator shall be consistent with law and the terms of this Agreement. The Arbitrator shall have no right to amend, modify, nullify, ignore, add to, or subtract from the provisions of this Agreement, nor shall the Arbitrator have jurisdiction to determine that the parties by practice or implication have amended or supplemented this Agreement. The Arbitrator shall consider and decide only the question of fact as to whether there has been a violation, misinterpretation, or misapplication of the specific provisions of this Agreement. The Arbitrator shall be in power to determine only the issue raised by the grievance as submitted in writing by the grievant. The Arbitrator shall have no authority to make a recommendation on any issue not so submitted or raised. The Arbitrator shall be without power to make recommendations contrary to or inconsistent with, in any

way, applicable laws or rules and regulations of the administrative bodies that have the force and effect of law. The Arbitrator shall not in any way limit or interfere with the powers, duties and responsibilities of the City under law or applicable court decisions.

SECTION 10. The cost of any arbitration as well as the Arbitrator's fee shall be borne equally by the parties to the Agreement. Any legal representation or costs incurred by each party in preparing or presenting their case in arbitration shall be borne by the party incurring the expense.

SECTION 11. Either party may request a Certified Court Reporter to take a stenographic report of the evidence taken at an arbitration hearing. If such stenographic record is taken, a copy of the transcript shall be provided to the Arbitrator. The party requesting a stenographic record shall pay the cost thereof, except that if the other parties shall request a copy of any transcript, the parties shall share equally the entire cost of making the stenographic report.

SECTION 12. The number of days indicated at each level of the grievance procedure shall be considered as a maximum unless mutually extended by the parties.

SECTION 13. Anything in this Agreement to the contrary notwithstanding, the following matters are not subject to the grievance procedures of this Agreement:

- a) Any grievance which is not filed in accordance with the provisions of this Article or does not meet the definition of a grievance as set forth in this Article; or
- b) Any matter reserved solely to the Rights of Management or to the discretion of the City or the Fire Chief by the terms of this Agreement, except as to the resolution of whether or not a matter is a specific Right of Management; or
- c) Any matter which would require a change from the wages, rates of pay, hours, grievance procedure, working conditions, and all other terms and conditions of employment as set forth in this Agreement; or
- d) Any matter which is not covered by this Agreement; or
- e) Any matter covered by the City of Greeley Employee Handbook, the official Standard Operating Procedures of the Greeley Fire Department, State and Federal Statutes and Constitutional Provisions except to the extent that any such matter is addressed in the Agreement and the grievance alleges that the City has violated an express provision of this Agreement.

ARTICLE X PROMOTION

A. PROMOTION

SECTION 1. Promotional Committee.

- a) Purpose - It shall be the purpose of the Promotional Committee to establish, monitor and approve each testing procedure according to the guidelines of this Article.
- b) Composition - The committee shall consist of an appointee of the Fire Chief, and an appointee of the Union. Appointees must be at least equal to the rank/grade for the position being tested for. The committee may use any other person agreed to by the committee members as necessary to carry out its purpose.
- c) Functions of Committee - The committee is charged with preparing and finalizing specific tests and procedures for establishing a list of qualified candidates.

SECTION 2. Testing and Administration. Testing for promotions, shall be practical and adapted to determine the ability of applicants to perform the essential functions and duties of a particular position. Testing for promotions will always include a Chief panel interview (except for engineer positions). The composition of the panel will be determined by the Fire Chief. All applicants passing the written test (if administered) will be eligible for an interview and all interviews will be scored. The interview score will constitute 45% of the candidate's total aggregate promotional score.

- a) All approved components of the testing process shall be scored with the final score of applicants being an aggregate of all components.
- b) All approved applicants shall be subjected to the same testing.
- c) Any part or all of the testing or administration of any tests may be delegated or contracted by the Promotional Committee to appropriate parties other than the Promotional Committee.

SECTION 3. Notice. Notice of testing shall be posted at least ninety (90) days preceding the date of the first test for the position and shall include a description of the position, reference lists, testing components and procedures, feedback, and such other information as the Promotional Committee may deem pertinent. Notice of selection procedures will be included in the posting. All applications for testing shall be in writing on an approved form.

SECTION 4. Eligibility. Candidates for promotional examination must have the following qualifications:

- a) For promotion to the rank of Fire Engineer, the candidate must have had a minimum of three (3) years' experience as a Firefighter with the Greeley Fire Department.
- b) For promotion to the rank of Fire Lieutenant, the candidate must have had a minimum of five (5) years' experience as a Firefighter and/or Engineer with the Greeley Fire Department.
- c) For promotion to the rank of Fire Captain, the candidate must have had a minimum of two (2) years' experience as a Fire Lieutenant with the Greeley Fire Department.

SECTION 5. Test Results. The results of tests shall be placed in order of finish from highest to lowest of applicants and approved by the Promotional Committee for transmittal to the appointing authority. Candidates shall be ranked by the order of their aggregate test scores. Candidates with the same score shall be placed in the order of their seniority on the Greeley Fire Department.

SECTION 6. Selection. Applicant test results shall be posted (as described in Section 5 above) and promotional appointments covered under this agreement will be made in order of appearance on the posted promotional results.

SECTION 7. Feedback. Feedback will be provided to candidates following the promotional process in a format agreed upon by the Promotional Committee.

SECTION 8. Promotional Process for Ranks Not Listed in the Contract. For promotion to any rank not listed in this contract, input from the bargaining agent may be considered by the Fire Chief or the Fire Chief's designee.

B. GRIEVANCE PROCEDURE FOR PROMOTION

SECTION 1. A grievance under this Article shall be confined to an alleged violation of any express provision of this Article regarding promotional processes. Any Fire Fighter or group of Fire Fighters may discuss any matter with their supervisor without invoking the formal grievance procedure provided for in this Article and are encouraged to resolve matters at the lowest level of supervision.

SECTION 2. A grievant may, upon request, be represented at any level of the grievance procedure by a representative of the grievant, or by legal counsel. The time limit set forth for the processing of grievances shall be strictly adhered to. In the event that a grievance is not appealed to the next step of the grievance procedure within the time limits provided at any step, such grievance shall be declared closed and settled on the basis of the most recent City decision.

In the event of failure to answer a grievance within the time limit provided, it shall be considered a denial and the grievant may appeal the grievance to the next step of the procedure in accordance with the time limitation specified. Extensions of time may be requested by either party, and must be mutually agreed upon by both parties. To be effective, any extension of time must be set forth in writing.

SECTION 3. A grievance must be initiated only by a grievant, it must be signed by all aggrieved Fire Fighters who are to be included in any resolution thereof. The grievant must reduce the entire grievance and all the reasons thereof to writing along with the promotional issue which the grievant wishes to grieve. The written grievance must be dated and signed by the grievant and submitted to the Division Chief, or the Division Chief's designee with a copy to the Fire Chief or the Chief's designee within seven (7) calendar days of the date the grievant knew or should have known the facts which gave rise to the grievance.

SECTION 4. The Division Chief or the Division Chief's designee shall meet with the grievant in an effort to resolve the grievance within seven (7) calendar days after being presented with the written grievance. The Division Chief or the Division Chief's designee must respond in writing to the grievant

within seven (7) calendar days following the meeting with the grievant.

SECTION 5. If the grievance has not been satisfactorily resolved with the Division Chief, the grievant may appeal the decision to the Fire Chief or the Chief's designee in writing within seven (7) calendar days of receipt of the response of the Division Chief or the Division Chief's designee. Within seven (7) calendar days of receipt of the appeal of the grievance, the Fire Chief or Chief's designee shall discuss the grievance with the grievant. The Fire Chief or Chief's designee must give the grievant an answer in writing within seven (7) calendar days of the holding of such meeting.

SECTION 6. If the grievance is not mutually resolved with the Fire Chief or the Chief's designee, the grievant may appeal the grievance to the City Manager or the City Manager's designee in writing within seven (7) calendar days of receipt of the response from the Fire Chief or the Chief's designee. Within seven (7) calendar days of receipt of the appeal of the grievance, the City Manager or the City Manager's designee shall discuss the grievance with the grievant. The City Manager or the City Manager's designee must give the grievant an answer in writing within seven (7) calendar days of the holding of such meeting.

SECTION 7. If the grievance is not mutually resolved with the City Manager or the City Manager's designee, the grievant may file an appeal to the Civil Service Commission, with a copy to the Fire Chief and to the Human Resources Director, within seven (7) calendar days of receipt of the response from the City Manager or the City Manager's designee. The Commission shall, within fourteen (14) calendar days of receipt of the written appeal, schedule a hearing on the matter and within seven (7) calendar days of the hearing shall render its decision in writing to the appellant, which decision shall be final.

SECTION 8. The number of days indicated at each level of the grievance procedure shall be considered as a maximum unless mutually extended by the parties.

ARTICLE XI WORK HOURS

SECTION 1. The twenty-four (24) hour Fire Fighters shall continue to work in the three-platoon, twenty-four hour shift. For the term of this agreement Fire Fighters assigned to a 28-day work cycle shall work nine or ten 24-hour shifts or a total of 216 or 240 hours per cycle. A shift will be considered 24 hours. A rotation shall be two consecutive shifts equaling 48-hours on duty, followed by four consecutive shifts equaling 96 hours off-duty.

SECTION 2. Fire Fighters who work twenty-four hour shifts shall commence work at 7:00 a.m. and continue through to 7:00 a.m. the following day.

SECTION 3. Fire Fighters who are assigned by the Fire Chief to work days will work 80 hours in a two week period. The work cycle begins after midnight Wednesday and continues to and includes the second following Wednesday midnight.

SECTION 4. The pay dates for Fire Fighters will be bi-weekly.

SECTION 5. This Article is intended to identify the normal hours of work. It will not be construed as a guarantee of hours of work per day, per shift or of days of work per week or work cycle as it relates to time for training, emergency call back, transfers, light duty, Fire Department operations and/or other unusual circumstances that may arise.

ARTICLE XII LEAVES

A. LEAVE ADMINISTRATION

SECTION 1. Fire Fighters will be paid at their regular base rate of pay for paid leave granted but in no case more than twenty-four (24) hours per shift for shift personnel or regularly scheduled hours missed for day personnel but in no case more than 80 hours in a two week period for day personnel. The rate for paid leave will be the Fire Fighter's regular, straight time rate of pay in effect for the Fire Fighter's regular job at the time the leave is taken.

SECTION 2. Time spent on any type of paid or unpaid leave will not be considered as hours worked for purposes of overtime calculation.

SECTION 3. Vacation, holiday, personal leave, and compensatory leave must be requested in advance and be approved before it can be taken. Vacation, holiday, personal leave, and compensatory leave will be scheduled at the discretion of the Fire Chief or the Chief's designee in accordance with departmental policy.

SECTION 4. Fire Fighters will not accrue vacation or holiday for any month during which they are on layoff, leave of absence, or other forms of unpaid status.

SECTION 5. A Fire Fighter who terminates for any reason will receive vacation, holiday, and compensatory pay for the actual amount accrued at the time of the separation from employment except that leave accruals are not prorated. The amount of payment for said vacation, holiday and compensatory leave will be calculated based on the Fire Fighter's regular, straight time hourly rate of pay in effect for the Fire Fighter's regular job on the Fire Fighter's last day of work.

SECTION 6. Seniority for Fire Fighters shall determine priority in selecting scheduled leave. Fire Fighters who were hired on the same date, will have their seniority determined by their hiring ranking.

SECTION 7. Due to department workload, Captains regularly exceed normal work hours. Outside of Constant Staffing in Rank, Emergency call-in & Emergency staffing, Captains will receive 120 hrs. of Administrative leave to be used within the calendar year.

B. VACATION

SECTION 1. Fire Fighters who have been in the continuous service of the Greeley Fire Department for more than six (6) months will accumulate vacation at the end of each pay cycle based on the following schedules:

<u>Shift Personnel</u>		
<u>Time In Service</u>	<u>Hours per Pay Cycle</u>	<u>Annual Accrual Amount</u>
7 months to 2 years	4.6	120 hours
3 to 5 years	5.5	144 hours
6 to 10 years	6.5	168 hours
11 to 15 years	7.4	192 hours
16 to 20 years	8.3	216 hours
21 years and over	9.2	240 hours

<u>Day Personnel</u>		
<u>Time In Service</u>	<u>Hours per Pay Cycle</u>	<u>Annual Accrual Amount</u>
7 months to 2 years	3.1	80 hours
3 to 5 years	3.7	96 hours
6 to 10 years	4.6	120 hours
11 to 15 years	5.5	144 hours
16 to 20 years	6.2	160 hours
21 years and over	6.5	168 hours

SECTION 2. Fire Fighters will not earn any vacation during the first six (6) months of employment. Shift personnel will be credited with 60 hours of vacation after completing six (6) full months. Day personnel will be credited with 40 hours of vacation after completing six (6) full months.

SECTION 3. The maximum vacation accrual for Shift personnel is 396 hours. The maximum vacation accrual for Day personnel is 280 hours. The City recognizes on occasion the Fire Fighter might not be able to use scheduled leave due to a Fire Department directed deployment or special assignment. At the discretion of the Fire Chief the Fire Fighter will be allowed to exceed the maximum vacation leave accrual for a reasonable period of time.

C. HOLIDAYS

SECTION 1. Shift personnel will accrue five and a half (5 ½) shifts (132 hours) of holiday leave each year in lieu of taking the actual holiday off. Fire Fighters who are placed in shift positions mid-year will accrue holiday leave on a pro-rated basis of eleven (11) hours per full calendar month worked. The holiday leave may not be used during the year in which it was earned, but must be used in the following year.

SECTION 2. Day personnel will be granted 8 hours of holiday leave for each of the following holidays:

New Year's Day	January 1
Martin Luther King, Jr. Day	3rd Monday in January
President's Day	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	First Monday in September
Veteran's Day	November 11
Thanksgiving Day	Fourth Thursday in November
Day After Thanksgiving	Fourth Friday in November
Christmas Eve	December 24
Christmas Day	December 25
Floating Holiday	Granted January 1 of each year to be taken off at any time during the calendar year

If a holiday falls on a Fire Fighter's regularly scheduled work day which is greater than 8 hours, the difference can be taken in other available holiday, vacation leave or compensatory leave.

When an observed holiday falls on a Saturday, the preceding Friday will be taken as the holiday. When the holiday falls on Sunday, the next Monday will be taken as the holiday. When Christmas falls on Monday, that Monday and the following Tuesday will be observed as holidays. Day personnel may not elect to be paid for holiday hours in lieu of time off. A Fire Fighter may not take a holiday before it is earned.

SECTION 3. If day personnel are on some type of approved paid leave that encompasses an observed holiday, the holiday will count as a day of holiday leave, rather than as a day of vacation leave, sick leave, etc. If a Fire Fighter is on approved leave without pay that encompasses a holiday there is no holiday accrual.

SECTION 4. Firefighters cannot carry over unused holiday leave from one year to the next. Holiday leave time accrued beginning January 1, 2022 and ending December 31, 2022 but not used by December 31, 2022 will be forfeited. Holiday leave time accrued beginning January 1, 2023 and ending December 31, 2023 but not used by December 31, 2023 will be forfeited.

D. SICK LEAVE

SECTION 1. Shift personnel will accrue sick leave at the rate of 5.5 hours per pay cycle. Day personnel will accrue sick leave at the rate of 3.7 hours per pay cycle. Accruals will occur after each full pay cycle in which the Fire Fighter is in pay status. Shift personnel may accumulate a maximum 57 shifts (1368 hours) of sick leave. Day personnel may accumulate a maximum of 960 hours of sick leave.

SECTION 2. Upon termination from employment, Fire Fighters hired prior to January 1, 1989 will be paid for; 1) one-half of their sick leave accrual at the time of termination; or 2) one-half of their sick leave accrual as of December 31, 1988, whichever is less. In either case, payment will not exceed a maximum of 28.5 shifts (684 hours) for shift personnel or 60 days (480 hours) for day personnel. Fire Fighters hired after January 1, 1989, will not receive pay for accumulated sick leave balances at time of termination.

SECTION 3. When Fire Fighters are absent due to an incapacitating illness or injury, or required medical, dental or optical examination for themselves, they will notify their supervisor as soon as they know they will not be able to report to work. Appointments for non-emergency doctor, dental, or optical appointments must be scheduled on off-duty time unless approved in advance. The Fire Fighter will be paid at the regular straight time rate for each hour missed because of said absence to the extent the Fire Fighter has available sick leave.

SECTION 4. Sick leave may also be by shift and day Personnel used for any reason found in C.R.S. §§ 8-13.3-404 and 8-13.3-405, as they may be amended from time to time. Routine childcare does not meet the requirements of this provision. The need for such leave will be subject to verification if so required by the Fire Chief or the Chief's designee.

SECTION 5. Fire Fighters whose illness requires sick leave in excess of their accumulated amount may be granted leave without pay, or be allowed to use accrued vacation, holiday leave, etc.

SECTION 6. A doctor's certificate or examination by a physician designated by the City may be required by the City as verification of illness. Any abuse of sick leave may be subject to disciplinary action. Fire Fighters returning to work after a major or potentially incapacitating illness must submit a doctor's written release before returning to duty.

E. PERSONAL LEAVE DAY

Once each year shift personnel may convert up to 24 hours of accrued sick leave to Personal Leave (Personal Leave Day). Once each year day personnel may convert up to 8 hours of accrued sick leave to Personal Leave (Personal Leave Day). Personal leave hours are to be scheduled in advance of the date to be taken. If a Fire Fighter chooses not to take Personal Leave, the Fire Fighter may carry the hours from one year to the next as sick leave up to the maximum accrual. Firefighters must request and use converted time in a calendar year with the last available date being;

December 21, 2022 for the 2022 calendar year

December ____ 2023 for the 2023 calendar year

F. MATERNITY LEAVE

SECTION 1. When a Fire Fighter determines that she is pregnant, she will discuss with her doctor the continuance of her line firefighting position. The City reserves the right to require that the Fire Fighter consult a physician designated by the City to determine her physical ability to continue line firefighting duties. If it is determined by the City physician that the Fire Fighter is physically unable to perform line firefighter duties, but is determined to be capable of performing limited work assignments, the Fire Fighter will be scheduled to work under the conditions set forth by the physician, if such work is available and approved. The Fire Fighter may work in the limited work assignment until the birth of the child.

SECTION 2. A pregnant Fire Fighter must make a written request to her supervisor and the Fire Chief for maternity leave approximately thirty calendar days in advance of the anticipated leave. A pregnant Fire Fighter will be expected to work as long as her doctor certifies that she is physically capable of performing line firefighting duties or limited work assignments.

SECTION 3. Accrued sick leave may be taken only for the length of time certified by her physician as medically necessary for the health of the Fire Fighter. Upon returning to work, the Fire Fighter will submit a doctor's slip to verify the requested number of sick leave days taken to be medically necessary. Sick leave days not certified by her physician for medical necessity will be charged to another type of leave.

SECTION 4. The City reserves the right to require a letter from the Fire Fighter's doctor at any time certifying the Fire Fighter's capability or incapability of physically performing job duties. When a Fire Fighter returns to work, she will be reinstated in her previous assigned position or a limited work assignment, if such limited work assignment is available and approved, at her previous wage rate or at the rate she would have received except for her leave.

G. INJURY LEAVE

SECTION 1. If a Fire Fighter has been disabled due to an on-the-job injury and is entitled to receive benefits under the Worker's Compensation Law of the State of Colorado for temporary partial disability or temporary total disability, work time missed will be charged as injury leave, upon approval of the designated Worker's Compensation Administrator.

SECTION 2. Injury leave will terminate after 90 calendar days or as it applies below:

- 1) On the date a ruling of permanent disability is made; 2) when the appointed physician releases the Fire Fighter to return to work; 3) at such time as the Fire Fighter is declared capable of performing normal duties by a physician appointed by the City; 4) when the Fire Fighter reaches maximum medical improvement (MMI).

SECTION 3. If prior to release for normal duties, it is determined by a physician that the Fire Fighter is capable of performing limited work assignments, the Fire Fighter will return immediately to work under the conditions set forth by the physician, if such work is available and approved by the Fire Chief.

SECTION 4. Any limited assignment of duty will be reviewed at least every fourteen calendar days to determine if the Fire Fighter is capable of resuming normal unlimited duties. If the Fire Fighter is not released to return to normal duties by the expiration of the injury leave period, the Fire Fighter will be considered for placement to an available position for which the Fire Fighter possesses the necessary qualifications. If such a placement is not available, the Fire Fighter will be terminated.

SECTION 5. A Fire Fighter who is injured while not on duty with the Greeley Fire Department will not be entitled to injury leave. Fire Fighters traveling to and from work and on unpaid meal breaks are not covered by Worker's Compensation if injured during those times.

H. MILITARY LEAVE

SECTION 1. A leave of absence of a maximum of fifteen calendar days per year shall be granted to Fire Fighters who are active in the National Guard or a branch of the Armed Forces Reserves for the purpose of fulfilling their annual field training obligations. Written application for a military leave of absence must be made as soon as possible after receiving the military order. Fire Fighters will not be entitled to receive their regular wages while absent on military leave of absence. Upon the Fire Fighter's return to work, the appropriate paper work detailing the pay received from the armed forces must be submitted. If the Fire Fighter's salary from the armed forces, exclusive of travel allowance, is less than the gross pay from the employer, the Fire Fighter will receive the difference for a period not to exceed fifteen days of training.

SECTION 2. If their work schedules are such that they conflict with the once a month weekend duty, Fire Fighters may use vacation leave or leave without pay to attend such duty. Normally, Fire Fighters will be able to schedule their monthly duty so that they can take it on their regular days off.

SECTION 3. Fire Fighters who enter the military service by draft, shall be granted a leave of absence without pay for that purpose, after the receipt of a written notice of such leave.

SECTION 4. Within 90 calendar days after the Fire Fighter's military service ends, the Fire Fighter will be reinstated in accordance with applicable provisions of the Selective Service and Training Act and any other applicable laws. The 90-day period may be extended upon approval of the Fire Chief and the City.

SECTION 5. To return to Greeley Fire Department employment, the Fire Fighter must make a written application within 90 calendar days of the Fire Fighter's discharge from military service. Failure to do so will result in resignation. The Fire Fighter will be subject to reexamination for fitness and may be required to successfully complete the medical screening and background portions of the screening process.

SECTION 6. If the Fire Fighter is found to be physically and mentally qualified to do so, the Fire Fighter may return to the classification previously held, at a wage rate the Fire Fighter would have been earning except for the military service. If the Fire Fighter is not found to be able to perform the duties of the previous classification, the Fire Fighter may be placed in a different classification at an appropriate pay rate if such position is available, or terminated.

I. JURY DUTY

SECTION 1. When a Fire Fighter is called for jury duty at a time which conflicts with the regular work schedule, the Fire Fighter will be compensated for time lost from the job at the Fire Fighter's regular straight time rate. Jury duty may not be used in any instance when the Fire Fighter is a party in any fashion to the court action in question, unless the Fire Fighter's involvement arises as a result of the Fire Fighter's job duties or responsibilities.

SECTION 2. If scheduled for work, the Fire Fighter will be expected to report back to work within thirty minutes from the time the Fire Fighter is excused from jury duty.

SECTION 3. If a Fire Fighter is excused and does not serve on the jury, the Fire Fighter will be required to work the regular assigned shift.

SECTION 4. A Fire Fighter will be required to show evidence of jury duty upon request by the Fire Chief or the Fire Chief's designee.

J. ELECTION LEAVE

Fire Fighters are encouraged to vote in all elections. If Fire Fighters can vote before or after work, during their lunch hours, or through the absentee ballot alternative, they are encouraged to do so. If Fire Fighters can not vote during these times, they will be given up to a maximum of two hours of election leave for the purpose of voting.

K. EMERGENCY LEAVE

The Fire Chief or the Chief's designee may grant up to forty (40) hours for day personnel and up to four (4) shifts for shift personnel for unforeseen emergency reasons which are beyond the employee's control to pre-plan. Such leave will be charged to vacation, holiday or compensatory leave accruals.

L. BEREAVEMENT LEAVE

SECTION 1. In the event of the death of a family member, the firefighter may take up to two consecutive scheduled work shifts (48 hours) (three consecutive scheduled work days for day personnel) off with pay.

SECTION 2. For the purpose of bereavement leave, "family" is defined as spouse, civil union partner, child, parent, grandparent, grandchildren, brother, sister (this includes step, half and in-law relationships), aunt, uncle, niece, nephew, and first cousin.

SECTION 3. The Fire Chief may approve an additional two scheduled work shifts consecutive with the initial two shifts if the firefighter needs more than two shifts off or the firefighter may use other accrued leave or leave without pay, subject to the Fire Chief's approval. For day personnel, the Fire Chief may approve an additional two scheduled work days consecutive with the initial three days if the firefighter needs more than three days off or the firefighter may use other accrued leave or leave without pay, subject to the Fire Chief's approval.

M. LEAVE WITHOUT PAY

SECTION 1. Fire Fighters covered by this Agreement may request in writing a leave of absence from the Fire Chief, who may grant a leave of absence to the Fire Fighter, not to exceed ninety (90) calendar days. Upon written request, an extension of such leave of absence may be granted by the Fire Chief. Said extension shall not exceed an additional ninety (90) calendar days. An additional extended period of leave without pay cannot be requested until the Fire Fighter has been back at work for not less than twelve (12) months.

SECTION 2. Leave without pay will not be granted to allow the Fire Fighter to seek other employment or to accept remunerative employment elsewhere.

SECTION 3. As a condition to an extension of leave in excess of ninety (90) days being granted, the Fire Fighter may be required to waive all rights to immediate reinstatement to the same position the Fire Fighter had before the leave of absence was granted. The Fire Fighter will retain only the right to be appointed to the first vacancy for the position in which the Fire Fighter had been employed upon the termination of the leave.

SECTION 4. A Fire Fighter granted a leave of absence will continue to accrue leave and be eligible for benefits for only the first thirty (30) calendar days of leave without pay. A Fire Fighter must pay in advance to the City the full cost of insurance or other benefits requiring the payment of a cash premium, if the Fire Fighter wishes to retain such benefits after the thirty-day period. In the event the Fire Fighter does not desire to retain such benefits, a waiver releasing the City from any and all liability resulting from the discontinuance of such benefits must be signed by the Fire Fighter. The Fire Fighter must agree in writing to pay for any costs associated with resuming such benefit coverage and will be subject to the terms and conditions of benefit plans as they exist at the date of reinstatement.

N. FAMILY/MEDICAL LEAVE

All provisions of FMLA will be administered in accordance with the Family and Medical Leave City policy with detailed information available through the Human Resources Department.

ARTICLE XIII

WAGES

A. SALARY

Fire Fighters covered by this Agreement shall be paid in accordance with the position classifications set forth below:

Title	Effective December 23, 2021		Effective December 26, 2022	
	Annual	Hourly	Annual	Hourly
Recruit Firefighter	62,273	21.33	64,608	22.13
Recruit Firefighter / EMT I	66,114	22.64	68,594	23.49
Recruit Firefighter / Paramedic	68,035	23.30	70,586	24.17
Apprentice Firefighter I	66,582	22.80	69,079	23.66
Apprentice Firefighter I / EMT-I	70,423	24.12	73,064	25.02
Apprentice Firefighter I / Paramedic	72,344	24.78	75,057	25.70
Apprentice Firefighter II	71,148	24.37	73,816	25.28
Apprentice Firefighter II / EMT-I	74,990	25.68	77,802	26.64
Apprentice Firefighter II / Paramedic	76,910	26.34	79,795	27.33
Journey Firefighter I	76,193	26.09	79,050	27.07
Journey Firefighter I / EMT-I	80,035	27.41	83,037	28.44
Journey Firefighter I / Paramedic	81,956	28.07	85,029	29.12
Journey Firefighter II	81,496	27.91	84,552	28.96
Journey Firefighter II / EMT-I	85,338	29.23	88,539	30.32
Journey Firefighter II / Paramedic	87,259	29.88	90,531	31.00
Master Firefighter	87,167	29.85	90,436	30.97
Master Firefighter / EMT-I	91,009	31.17	94,422	32.34
Master Firefighter / Paramedic	95,811	32.81	99,404	34.04
Fire Engineer (min)	91,513	31.34	94,945	32.52
Fire Engineer (min) / EMT-I	95,354	32.66	98,930	33.88
Fire Engineer (min) / Paramedic	97,275	33.31	100,923	34.56
Fire Engineer (max)	96,042	32.89	99,644	34.12
Fire Engineer (max) / EMT-I	99,884	34.21	103,629	35.49
Fire Engineer (max) / Paramedic	104,687	35.85	108,612	37.20
Staff Specialist *	98,927	47.56	102,636	49.34
Staff Specialist / EMT-I *	102,895	49.47	106,754	51.32
Staff Specialist / Paramedic *	107,834	51.84	111,878	53.79
Fire Lieutenant (min)	100,866	34.54	104,649	35.84
Fire Lieutenant (min) / EMT-I	104,709	35.86	108,636	37.20
Fire Lieutenant (min) / Paramedic	106,630	36.52	110,628	37.89
Fire Lieutenant (max)	106,317	36.41	110,304	37.78
Fire Lieutenant (max) / EMT-I	110,158	37.73	114,289	39.14
Fire Lieutenant (max) / Paramedic	114,961	39.37	119,272	40.85
Fire Lieutenant Specialist *	109,510	52.65	113,616	54.62
Fire Lieutenant Specialist / EMT-I *	113,478	54.56	117,734	56.60
Fire Lieutenant Specialist / Paramedic *	118,417	56.93	122,857	59.07

Fire Captain (min)	118,580	40.61	123,027	42.13
Fire Captain (max)	125,687	43.04	130,401	44.66
Fire Captain Specialist *	129,352	62.19	134,202	64.52

*Day Shift Pay Rate (2,080 hrs)

Fire Engineers returning to 24 hour shifts from Staff Specialist positions shall displace the least senior Engineer (time in grade). The displaced Fire Engineer shall return to Master Firefighter classification and will be placed at the number one position on the most current eligibility list for Fire Engineer. The displaced individual will remain at that position on any subsequent list until promoted.

For Fire Recruit, Fire Fighter, Fire Engineer, and Fire Lieutenant, the rate of pay will be determined by dividing the annual salary by 2,920 hours. For day personnel eligible for overtime the hourly rate of pay will be determined by dividing the annual salary by 2,080 hours. The pay period rate for all Fire Captains will be determined by dividing the annual salary by 26.

All new hire Fire Fighters will serve a probationary period of 12 months in which there is an opportunity for the supervisor to train, observe, and evaluate the employee. Probationary Fire Fighters do not have any appeal rights and may be demoted, laid off or terminated without cause at the discretion of the City.

Fire Fighters will be eligible for a step increase every twelve (12) months upon satisfactorily completing all requirements. The time for performance appraisal will be based on the Fire Fighter's anniversary date.

Fire Engineers, Fire Lieutenants, and Fire Captains will receive the minimum salary for the position upon appointment and will be eligible for an increase to the maximum salary after 12 months of employment in the position and satisfactorily completing all requirements.

The Fire Chief may exercise discretion in delaying the eligibility of an increase due to pending disciplinary review. Depending on the outcome and circumstances, the pay increase may be made retroactive to the eligibility date.

B. OVERTIME PAY

SECTION 1. For Fire Recruits, Firefighters, Fire Engineers, and Fire Lieutenants who work twenty four-hour shifts, time actually worked over 212 hours in the twenty-eight day cycle will be paid as overtime. Calculation of the regular rate will be based on 2920 hours per year. For Fire Recruits, Firefighters, Fire Engineers and Fire Lieutenants who work days, time actually worked over forty (40) hours in a work week will be paid as overtime. Calculation of the regular rate will be based on 2080 hours per year. Overtime will be calculated at one and one-half times the regular rate. Fire Captains are exempt and not eligible for overtime.

SECTION 2. This Article is intended to divide the normal hours of work and to provide the basis for the calculation of payment of overtime. It will not be construed as a guarantee of hours of work per day, per shift or of days of work per week or work cycle.

C. COMPENSATORY TIME

SECTION 1. At the request of the Fire Fighter, compensatory time will be given in lieu of pay when compensable hours exceed 216 during a scheduled 9 shift pay cycle or 240 during a scheduled 10 shift pay cycle. Such compensatory time will only be allowed for pro-rated hours spent in training assignments. If the Fire Fighter has actually worked over 212 hours in the work cycle, such compensatory time will be given at a time and one-half rate for each hour spent in training. If the Fire Fighter has worked less than 212 hours in the work cycle, such compensatory time will be given at a straight time rate for each pro-rated hour spent in training.

SECTION 2. The total number of compensatory time hours will not exceed 72 and can be carried over from one year to the next. The Fire Fighter will be allowed to take the compensatory time off within a reasonable period of time.

SECTION 3. The chief or the chief's designee may allow the limit in Section 2 to be superseded to allow a Fire Fighter to attend special training. The Fire Fighter shall then use the compensatory time as soon as practical.

D. ONE-TIME PAYMENTS IN 2021. Fire Fighters employed by the City on the date of the full execution of this Agreement shall receive a one-time payment of two percent (2%) of their then-current salaries. This payment shall be made to Fire Fighters within sixty (60) days of the date of full execution of this Agreement.

ARTICLE XIV ACTING PAY

SECTION 1. Fire Fighters who are assigned to an acting position (Engineer, Lieutenant or Captain) will receive one hour at time and one-half of their existing straight time rate for every shift spent in an acting position. Fire Fighters will qualify for acting pay, after serving in the acting position for more than twelve (12) consecutive hours in a twenty-four hour shift.

SECTION 2. Fire Fighters who are assigned to acting Day Staff positions (Staff Specialist, Fire Lieutenant Specialist, or Fire Captain Specialist) will receive one half hour (0.5) at time and one-half of their existing day shift straight time rate for every day spent in an acting position.

SECTION 3. After completing six consecutive months (60 shifts) in a temporary acting position (Engineer, Lieutenant or Captain) the Fire Fighters who are assigned by the Fire Chief or the Chief's designee, to an acting position will receive pay at the current entry level pay of the position being filled.

ARTICLE XV POST EMPLOYMENT HEALTH PLAN

Firefighters shall be required to contribute annually to a Post Employment Health Plan (PEHP) or similar retirement savings plan in accordance with the terms and conditions of the plan's participation agreement as approved by the membership. The City agrees to deduct the contribution from the biweekly paycheck of each Fire Fighter. The Union agrees that the City will not be responsible for administrative or other fees or costs associated with administration of the plan.

ARTICLE XVI EMERGENCY CALL BACK

SECTION 1. In an emergency situation, Greeley Fire Department personnel may be called back to duty at any time. During a non-emergency situation, personnel may be called back to duty to relieve personnel who need to respond on a special detail such as hazardous materials responses, dive-rescue requests, arson investigations, and the like.

SECTION 2. While an employee may decline the request for call back, if the situation becomes urgent, the employee may be required to accept the assignment.

SECTION 3. The Fire Fighter in Command during situations requiring call back shall be responsible for selecting the qualified employees; e.g. dive rescue team member, hazardous materials team member, arson investigator, etc. When Command has the option, employees to be called back will be chosen so they are not on duty on the next shift.

SECTION 4. All employees except Captains called back to duty shall begin earning compensation at the time they report in at their regular assigned station. Employees will be paid at the rate of one and one half times their regular hourly rate, for a minimum of one hour, and for all time worked over one hour until released from duty by Command.

ARTICLE XVII HOLIDAY/VACATION SELL BACK

SECTION 1. Two times each calendar year shift personnel may elect to sell back to the City up to a combined maximum of 2 ½ shifts (60 hours) per year of holiday and/or vacation leave. Fire Fighters must have at least two (2) years of service and a balance of 7 ½ shifts (180 hours) of holiday and/or vacation in order to qualify for holiday/vacation sell back. Increments of ½ shifts (12 hours) must be used. The holiday and/or vacation leave will be paid by the City at the Fire Fighter's regular rate of pay.

SECTION 2. Two times each calendar year day personnel may elect to sell back to the City up to a combined maximum of five (5) days (40 hours) per year of vacation leave. Fire Fighters must have at least two (2) years of service and a balance of ten (10) days (80 hours) of vacation leave in order to qualify for vacation sell back. Increments of four (4) hours must be used. The vacation leave will be paid by the City at the Fire Fighter's regular rate of pay.

SECTION 3. Firefighters must submit their request in writing to the Fire Chief or the Chief's designee prior to September 30. Requests must be received in the Human Resources Department by the Friday two (2) weeks prior to the pay check on which the lump sum payment will be made.

ARTICLE XVIII HEALTH AND WELFARE

A. Health Insurance Contribution. The City agrees to provide Fire Fighters with a health insurance plan substantially equivalent to that provided to City of Greeley employees. The City contribution for health coverage will be 80% for family coverage and 80% for single coverage. The City reserves the right to provide this insurance through a self-insured plan or under a group insurance policy or policies issued by an insurance company or companies selected by the City on the plan document.

B. Dental Assistance Contribution. The City agrees to provide the Fire Fighters with a dental assistance plan substantially equivalent to that provided to City of Greeley employees. The City reserves the right to provide this dental insurance through a self-insured plan or under a group insurance policy or policies issued by an insurance company or companies selected by the City. It is understood that the plan is subject to the rules and regulations of the insurance carrier on the plan document.

C. Life Insurance Contribution. The City agrees to provide Fire Fighters with one and one half (1 ½) times annual salary life insurance with Accidental Death and Dismemberment. The City will continue to provide the current level of coverage for dependents. The City reserves the right to provide this life insurance through a self-insured plan or under a group insurance policy or policies issued by an insurance company or companies selected by the City. It is understood that the life insurance plan is subject to the rules and regulations of the insurance carrier.

D. Physical Examination. Any physical examination or fitness-for-duty examination required of Fire Fighters by the City shall be at City's expense and the results thereof shall be submitted to the City. Upon request, Fire Fighters shall be afforded an opportunity to review the results. The above shall not be construed to include examinations for work-related injuries or illnesses covered by the worker's compensation program.

E. Return to Regular Duty Certification.

SECTION 1. In order to protect the public and department personnel, the City has the responsibility of determining the safety, health and property protection measures for Fire Department personnel.

SECTION 2. Prior to returning to regular duty following leave or an alternate duty assignment resulting from the firefighter's off-duty serious health condition requiring leave or alternate duty assignment of more than four consecutive shifts (shift personnel) or more than 40 consecutive hours (day personnel), the firefighter will be required to obtain and present certification from the firefighter's physician stating that the firefighter is able to return to regular duty and perform the essential functions of the position. The certification completed by the firefighter's physician will be on a form approved by the Labor Management Committee. The fitness-for-duty certification will relate only to the particular health condition that resulted in the firefighter's need for leave or alternate duty assignment.

SECTION 3. Prior to returning to regular duty following leave or an alternate duty assignment resulting from the firefighter's off-duty serious health condition requiring leave or alternate duty assignment of more than six consecutive shifts (shift personnel) or more than 80 consecutive hours (day personnel), the firefighter will be required to obtain and present certification from the firefighter's physician as well as certification from the City-designated physician(s) stating that the firefighter is able to return to regular duty and perform the essential functions of the position. The certification completed by the firefighter's physician will be on a form approved by the Labor Management Committee. The fitness-for-duty certifications will relate only to the particular health condition that resulted in the firefighter's need for leave or alternate duty assignment.

SECTION 4. In cases where the firefighter's physician certifies that the firefighter is able to return to regular duty and perform the essential functions of the position and the physician(s) designated by the City does not certify the firefighter to return to regular duty and perform the essential functions of the position, the firefighter can choose one of the following:

- 1) Follow the limitations and restrictions, if any, of the City-designated physician and return to regular duty or available alternate duty assignment when certified by the City designated physician and within the time frames and limitations for authorized leave;
- 2) Obtain a second opinion from any one of the three or more different physicians on a pre-established list that has been approved by the Fire Chief. The City will reimburse the firefighter for one-half the cost of the second opinion that the firefighter is responsible for paying that is not paid by insurance. When this option is selected, the firefighter must abide by the City-designated physician's decision until the second opinion is obtained. Leave time taken must be charged to approved and available leave. The recommendation of the selected physician will be submitted to the Fire Chief for a final determination on the firefighter's return to regular duty status.
- 3) Request an alternate duty assignment or extension of an alternate duty assignment. In cases where the firefighter requests an alternate duty assignment or extension of an alternate duty assignment, if such alternate duty assignment is available, the City will make such assignment or extension of the assignment available for up to two months (20 shifts or 320 hours if assigned to days) or the day the firefighter is released by the City-designated physician(s) to return to regular duty. Doctor's appointments scheduled during the alternate duty assignment must be requested and approved and leave time will be charged to sick leave, if available, other available leave or leave without pay. The firefighter's participation in rehabilitation activities during scheduled work hours will be at the discretion of the Fire Chief.

SECTION 5. In no case shall approved leave, alternate duty assignment or a combination of approved leave and alternate duty exceed 6 continuous months unless approved by the City.

G. Line of Duty Death. If a firefighter is killed in the line of duty, the City shall pay for the actual funeral expenses incurred by the survivors up to a maximum of ten thousand dollars (\$10,000.00). This payment shall be made to the firefighter's estate.

If a firefighter is killed in the line of duty, the City shall pay the health insurance premium for the twelve (12) months of COBRA coverage for a surviving spouse and eligible dependents of the

firefighter enrolled in the city's health insurance plan at the time of the line of duty death.

H. Tuition Assistance. The City agrees to provide firefighters with a tuition assistance plan substantially equivalent to that provided to City of Greeley employees.

I. Uniforms and Equipment

SECTION 1. Upon employment the City shall provide the initial issue of uniforms to each Fire Fighter as designated by the Fire Chief. All primary and back-up protective clothing or protective devices required of employees in the judgment of the Fire Chief, in the performance of their duties, shall be furnished without cost to Fire Fighters. Every attempt will be made to provide gear that his sized to the Fire Fighter.

SECTION 2. The City shall replace, as needed, and shall provide facilities or programs to maintain, repair and clean uniforms issued by the Fire Department.

SECTION 3. All uniforms, protective clothing and protective devices damaged in the line of duty, shall be replaced by the City without cost to the employee, when necessary in the judgment of the Fire Chief and his/her designee.

SECTION 4. All uniform, clothing, protective gear and devices damaged or lost through neglect or employee carelessness shall be replaced at the expense of the employee.

ARTICLE XI
PENSION

The City will deduct appropriate contributions from the wages of each Fire Fighter, and will make contributions to the pension plan of each Fire Fighter, as required by the Colorado Fire and Police Pension Association.

ARTICLE XX
DEATH AND DISABILITY

The City will pay the full amount of the premiums charged for the statewide death and disability plan for Firefighters hired on or after January 1, 1997.

ARTICLE XXI
STAFFING

SECTION 1. The City and the Union recognize the goal of the Greeley Fire Department is to provide the citizens a high level of service while maintaining the safety of its firefighters. Without abrogating or limiting the management rights set forth in Article IV it is the Parties' goal to staff as follows:

A. Each Engine Company should have an assignment of four (4) with a minimum of three (3) line

personnel.

B. Each Ladder/Truck Company should have a minimum of four (4) line personnel; and

C. Each Battalion should have a minimum of two (2) Captains per shift.

SECTION 2. The City will engage in good faith efforts to meet these levels for the term of the 2022-2023 Collective Bargaining Agreement between the Parties. However, the City retains discretion to change staffing to meet City needs. When the City decides that a change to the staffing levels identified above is necessary, the City will meet with the Union to discuss why those changes are necessary and receive feedback from Union representatives prior to making those changes. When the conditions that cause a reduction in staffing are financial in nature, an evaluation of how and if staffing levels can be restored to the levels identified above shall be performed in conjunction with the Union.

ARTICLE XXII SAVINGS CLAUSE

SECTION 1. If any provision of this Agreement is subsequently declared by legislative or judicial authority to be unlawful, unenforceable, or not in accordance with applicable laws, statutes, and regulations of the United States of America and the State of Colorado, all other provisions of this Agreement shall remain in full force and effect for the duration of this Agreement and the parties shall meet as soon as possible to agree on a substitute provision. However, if parties are unable to agree within thirty (30) days following commencement of the initial meeting then the matter shall be postponed until contract negotiations are reopened. This thirty (30) day time period may be extended at the mutual Agreement of the City and the Union .

SECTION 2. In addition to the provisions of Section 1 of this article, the parties recognize that Article X, Section 20 of the Colorado Constitution presents unknown and inexact requirements and limitations upon the economic decisions and budgetary requirements of the City.

Rather than force a legislative or judicial declaration of invalidity of any of the terms and conditions of this Agreement for violation of the limitations of Article X, Section 20, the parties agree to open further collective bargaining for any and all of the terms of this Agreement that may prospectively violate Article X, Section 20 of the Colorado Constitution.

Determination of whether or not any of the terms and conditions of this Agreement exceed the limitations imposed by Article X, Section 20 of the Colorado Constitution, shall be determined by the appropriate officials of the City. The determination shall be reduced to writing, specifically citing the nature and extent of the prospective violation by any existing term or condition of this Agreement.

ARTICLE XXIII DURATION

SECTION 1. This agreement shall be effective January 1, 2022 and shall continue to and include December 31, 2023. This contract is subject to appropriation and availability of City funds on an annual basis.

SECTION 2. Agreement shall continue for the duration of the contract. This Agreement shall then automatically continue from year to year for successive terms of one (1) year each unless the City or the Union shall give to the other written notice of request for collective bargaining no later than March 1 of the year the contract expires stating its desire to modify or terminate this Agreement.

SECTION 3. When changes in the Agreement are proposed and subsequently agreed upon, they shall be reduced to writing and signed by both parties.

Approved as to Legal Form:

City Attorney

Approved as to Availability of Funds:

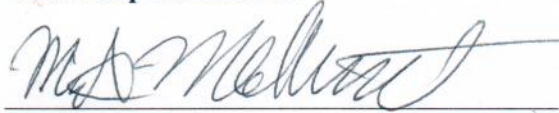
Director of Finance

Approved as to Substance:

City Manager

Union Representative:

President

A handwritten signature in dark ink, appearing to read "M. J. McElroy", is written over a horizontal line.



City of Greeley and Greeley Fire Fighters Union Contract

October 5, 2021

Areas Amended



- **2 year contract:**

2022	2023
6%	3.75%

COVID-19 Hero Bonus: 2% of current salary upon execution of contract

- **Holiday: Added Martin Luther King day**





Questions and Discussion

Council Agenda Summary

Title

Scheduling of Meetings, Other Events

Summary

During this portion of the meeting the City Manager or City Council may review the attached Council Calendar or Worksession Schedule regarding any upcoming meetings or events.

Attachments

Council Meetings and Other Events Calendar
Council Meeting and Work Session Schedule

October 4, 2021 - October 10, 2021

October 2021						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November 2021						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Monday, October 4

Tuesday, October 5

6:00pm - City Council Meeting - Council Master Calendar

Wednesday, October 6

Thursday, October 7

7:30am - 9:00am Regional Leadership Breakfast (Rialto Theater - 228 East Fourth Street, Loveland, CO 80537) - Council Master Calendar

3:30pm - IG Adv. Board (Butler)

6:00pm - MPO (Gates/Payton)

Friday, October 8

Saturday, October 9

Sunday, October 10

October 11, 2021 - October 17, 2021

October 2021						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November 2021						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Monday, October 11

Tuesday, October 12

6:00pm - City Council Worksession Meeting - Council Master Calendar 

Wednesday, October 13

Thursday, October 14

7:30am - Poudre River Trail (Hall) 

Friday, October 15

Saturday, October 16

Sunday, October 17

October 18, 2021 - October 24, 2021

October 2021						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November 2021						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Monday, October 18

Tuesday, October 19

6:00pm - City Council Meeting - Council Master Calendar

Wednesday, October 20

2:00pm - 5:00pm Water & Sewer Board (Gates)

Thursday, October 21

7:30am - 8:30am DDA (Zasada/Butler)

3:30pm - 4:30pm Airport Authority (Clark/Payton)

Friday, October 22

Saturday, October 23

Sunday, October 24

October 25, 2021 - October 31, 2021

October 2021						
Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November 2021						
Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Monday, October 25

11:30am - 12:30pm Greeley Chamber of Commerce (Hall) 

6:00pm - 7:00pm Youth Commission (Butler) 

Tuesday, October 26

6:00pm - City Council Worksession Meeting - Council Master Calendar 

Wednesday, October 27

7:00am - 8:00am Upstate Colorado Economic Development (Gates/Hall) (Upstate Colorado Conference Room) - Council Master Calendar 

Thursday, October 28

7:30am - Poudre River Trail (Hall) 

Friday, October 29

Saturday, October 30

Sunday, October 31

City Council Meeting Scheduling

Current as of 10/01/2021

This schedule is subject to change

Date	Description	Sponsor	Placement/Time
October 12, 2021 Worksession Meeting	COVID-19 Update	Raymond Lee	0.25
	Recycling Program Feasibility	Paul Trombino	0.50
	Report back on Methodology for calculating bonuses for certain employees	Raymond Lee	0.25
	2022 CDBG Program Applications Summary	Ben Snow	0.25
October 19, 2021 Council Meeting	Resolution - GOCO Grant with CO DNR through State Trails Program for Shur View property	Andy McRoberts	Consent
	Resolution - CO DNR Grant through State Trails Program for updates to City trails master plan	Andy McRoberts	Consent
	Resolution - CO DNR Grant through State Trails Program for repairs to Poudre River Trail "narrows"	Andy McRoberts	Consent
	Resolution - School Inspection MOU	Becky Safarik	Consent
	Resolution – 2021 City of Greeley Tax Levy Certification	John Karner	Consent
	Ordinance - Second - 2022 Budget Adoption	John Karner	Regular
	Ordinance - Second - 300 E 8th Street Rezone	Becky Safarik	Regular
	Public Hearing - Westgate Preliminary/Final PUD	Becky Safarik	Regular
	Ordinance - Second - Amendments to the GMC regarding Industrial Pre-Treatment	Sean Chambers	Regular
	Ordinance - Second - Non-Potable Water Irrigation Master Plan	Sean Chambers	Regular
	Public Hearing to consider 2022 CDBG Program Applications	Ben Snow	Regular
	Boards & Commissions Appointments	Anissa Hollingshead	Regular
October 26, 2021 Worksession Meeting	COVID-19 Update	Raymond Lee	0.25
	Code Compliance Presentation	Becky Safarik	0.50
	ERP Update	Raymond Lee	0.50
	Executive Session: City Manager Quarterly Check-in	Raymond Lee	0.50
November 2, 2021 Council Meeting	Cancelled		

Council Agenda Summary

Title

Consideration of a motion authorizing the City Attorney to prepare any required resolutions, agreements, and ordinances to reflect action taken by the City Council at this meeting and at any previous meetings, and authorizing the Mayor and City Clerk to sign all such resolutions, agreements and ordinances

Council's Recommended Action

A motion to approve the above authorizations.