



Remote Meeting Instructions for the June 16, 2021, Water & Sewer Board Meeting:

In order to comply with all health orders and State guidelines to stop the spread of the COVID-19 Coronavirus, **no physical location, including the City Council Chambers, will be set up for viewing or participating in this Water & Sewer Board meeting.**

You can view this Meeting by following the instructions below to watch the YouTube live stream. By utilizing this option to view the meeting, you will not be able to provide live input during the meeting. To provide live input, see the "In real time" instructions near the bottom of this page.

- From your laptop or computer, click the following link or enter it manually into your Web Browser: (<https://www.youtube.com/user/CityofGreeley>)
- Clicking the link above will take you to the City of Greeley's YouTube Channel.
- Once there, you will be able to view the meeting!

Citizen input and public comment for items appearing on this agenda as public hearings/quasi-judicial are valuable and welcome!

Anyone interested in participating and sharing public comments have a few of options:

Via email? – Submit to Ettie.arnold@greeleygov.com

All comments submitted this way will be read into the record at the appropriate points during this meeting in real time. Comments can be submitted up to and throughout this meeting.

Via traditional Mail? - Address to the Water & Sewer Department's Office, 1001 11th Avenue, Attn: Shannon Metcalf, Greeley, CO 80631

All written comments must be received no later than the day of the meeting. Again, written comments received by mail will also be read into the record in real time.

In real time? – <https://greeleygov.zoom.us/j/87909166820>

Clicking the link above will give you access to the live meeting where you will become a virtual audience member and be able to speak under Citizen Input on items not already on the agenda or during a scheduled public hearing.

Please visit the City's website at <http://greeleygov.com/government/b-c/boards-and-commissions/water-and-sewer> to view and download the contents of the May 19th Water & Sewer Board Meeting. You are also welcome to call the Water & Sewer Department at 970-350-9801 with any special needs or questions that you may have.

WATER & SEWER BOARD AGENDA

Wednesday June 16, 2021

2:00 p.m.

MEETING WILL BE LIVE STREAMED ON YOUTUBE.COM DUE TO CITY CLOSURES

RELATED TO COVID-19 Public Comments, please use:

<https://greeleygov.zoom.us/j/87909166820>

1. Roll Call: _____ Chairman Harold Evans _____ Vice Chairman Mick Todd
 _____ Mr. Bob Ruyle _____ Mr. Fred Otis
 _____ Mr. Joe Murphy _____ Mr. Tony Miller
 _____ Mr. Manuel Sisneros _____ Mayor John Gates
 _____ Mr. Roy Otto _____ Mr. John Karner
2. Approval of Minutes
3. Approval of and/or Additions to Agenda Welcome New Employees and Promotions
4. 2021 Water Conservation Program Update
5. Wastewater Collections Master Plan Update
6. Update on Cameron Peak Wildfire Recovery Funding and Activities
7. Executive Session
 ● Water Court Matters
8. Legal Report
9. Director's Report
10. Such Other Business That May Be Brought Before the Board and Added to This Agenda by Motion of the Board-



If, to effectively and fully participate in this meeting, you require an auxiliary aid or other assistance related to a disability, please contact Shannon Metcalf at 970-350-9818.

**City of Greeley
Water and Sewer Board
Minutes of May 19, 2021
Regular Board Meeting**

Chairman Harold Evans called the Water and Sewer Board meeting to order at 2:00 p.m. on Wednesday, May 19, 2021. Due to City remote operations status related to COVID-19, this meeting was held remotely and was aired via live stream for public viewing at <https://www.youtube.com/user/CityofGreeley>.

1. Roll Call

The Clerk called the roll and those present included:

Board Members:

Chairman Harold Evans, Vice Chairman Mick Todd, Fred Otis, Tony Miller, Joe Murphy, Manuel Sisneros, Roy Otto and Mayor Gates

Water and Sewer Department Staff:

Director Sean Chambers, Deputy Director Water Resources Adam Jokerst, Deputy Director of Operations Nina Cudahy, Utility Finance Manager Erik Dial, Water Resources Manager Jen Petrzela, Water Resources Asset Coordinator Cole Gustafson, Technical Services Manager Joe Kunovic, Rates and Budget Analyst Kalen Myers and Office Manager Shannon Metcalf

Legal Counsel:

City Attorney Doug Marek, Counsel to Water & Sewer Board Attorney James Noble, Environmental and Water Resources Attorney Jerrae Swanson, Environmental and Water Resources Attorney Dan Biwer, Environmental and Water Resources Attorney Aaron Goldman

Other Guests:

2. Approval of Minutes

Vice-Chairman Todd made motion, seconded by Mr. Murphy, to approve the April 21, 2021 Water and Sewer Board meeting minutes. The motion carried 6-0.

3. Approval of and/or Additions to Agenda

There were no changes to the agenda.

4. Welcome New Employees

Mr. Chambers provided an introduction of new Water and Sewer Department employees starting this month.

5. Approve and Recommend to Council Industrial Pretreatment Code Modifications

Ms. Kunovic explained that following a routine audit of the City's Industrial Pretreatment Program, the United States Environmental Protection Agency made a list of recommended ordinance modifications and best practices for Greeley to implement. Staff worked with the EPA Pretreatment Program advisors and the Greeley City Attorney's Office to develop the program modifications that meet the expectations of the EPA. The modifications to the Industrial Pretreatment Program must be codified through amendments to the City Code. The code changes amend the definitions to better align with Federal definitions, align the ordinance with current program processes such as permitting, enforcement and correct minor clerical errors. The amendments will provide more clarity for enforcement actions.

Vice-Chairman Todd moved, seconded by Mr. Miller that the board recommend to City Council approval of the Industrial Pretreatment Program legal authority as presented and the associated revisions to the Greeley Municipal Code, substantially in the form of the draft ordinance included in the board packet. The motion carried 6-0.

6. Recommend to Council Approve an Ordinance Establishing a Local Improvement District for the Ashcroft Regional Lift Station

Mr. Miller recused himself from the discussion and vote on this item due to a possible conflict of interest.

Mr. Prior explained that this ordinance will create a Local Improvement District for construction of a regional wastewater lift station and gravity sewer line to serve existing and future developments. The 2.9 million gallons per day full build out capacity lift station is planned to be located adjacent to the southeast corner of the existing St. Michaels Subdivision along 65th Ave. Wastewater treatment for the residents in St Michaels Subdivision, which are Greeley W&S customers, is currently provided by the City of Evans, pursuant to an intergovernmental agreement. This IGA was amended in May of 2021 to establish temporary treatment rates and the terms by which Evans will provide emergency overflow after the proposed Ashcroft lift station is constructed. The proposed Ashcroft lift station will allow Greeley to provide wastewater treatment to existing and future developments in Greeley within the Ashcroft Draw Basin.

The LID will establish two rates for assessment, 1) properties only tributary to the downstream proposed gravity sewer, and 2) properties tributary to the proposed lift station, force main, and gravity sewer as depicted in Exhibit A of the Ordinance. The Lift Station service area is approximately 900 acres, while the gravity sewer service area is approximately 1080 acres, with 180 acres of the service area being directly tributary to the gravity sewer main.

The basis for assessments under the LID will be water service tap size and ¾" equivalents. The lift station will have a ¾" equivalent capacity of 5156 and the downstream gravity sewer will have a ¾" equivalent capacity of 7051. The current estimated budget for the project is \$4.64 million, however the maximum estimated cost will be adjusted after receipt of GMP pricing, anticipated in the end of May 2021.

Vice-Chairman Todd moved, seconded by Mr. Murphy that the board recommend to City Council approval of an ordinance establishing Local Improvement District 343795 for construction of the Ashcroft Lift Station and associated infrastructure, substantially in the form of the draft ordinance included in the Board packet. The motion carried 5-0.

7. Executive Session

Mr. Otis recused himself from participating in the Executive Session and voting on this item due to a possible conflict of interest.

Chairman Evans moved, seconded by Vice-Chairman Todd, to hold an executive session to address the following matters, as provided by C.R.S. § 24-6-402(4)(a), (b) and (e) and Greeley Municipal Code § 2.04.020(a) (1), (2) and (5):

1. For the purpose of providing the Board legal advice and determining positions relative to matters that may be subject to negotiations, developing strategy for negotiations, and instructing negotiators on matters related to the purchase and sale of the Long Peak Dairy Water Rights.

The motion carried 5-0.

The Board left the public session and moved into a private, executive session. The live feed of the public session on YouTube stopped recording, but was still accessible to the public. While the Board conducted the executive session, the public was provided with a screenshot of the agenda and a message stating the Board was in Executive Session.

Present during the executive session were:

Chairman Harold Evans, Vice Chairman Mick Todd, Manual Sisneros, Joe Murphy, Tony Miller, Roy Otto, Director Sean Chambers, Deputy Director Water Resources Adam Jokerst, Utility Finance Manager Erik Dial, Water Administrator II Cole Gustafson, Outside

Legal Counsel Jim Noble, Environmental and Water Resources Attorney Jerrae Swanson, Environmental and Water Resources Attorney Dan Biwer, Environmental and Water Resources Attorney Aaron Goldman, and Senior Administrative Specialist Ettie Arnold

This executive session was authorized by Subsections (a),(b) and (e) of Section 24-6-402(4) of the Colorado Revised Statutes, and Subsections (1), (2) and (5) of Section 2.04.020 (a) of the Greeley Municipal Code.

The Executive Session ended at 3:05 p.m. The Board then left the executive session and moved back into the open, regular session. At that time, the live feed of the meeting resumed on YouTube.

8. Approve Purchase and Sale Agreement with Longs Peak Dairy and Recommend City Council Approve the Divestment of City Owned Property Identified Therein

Mr. Cole Gustafson explained that this is a Purchase and Sale Agreement for water rights with Longs Peak Dairy, LLC. The Agreement contemplates Greeley's purchase of five and one-sixth shares of the Water Storage and Supply Company ("WSSC"). Part of the negotiation was a leaseback with an initial term of twenty years, which may be extended for up to five additional one-year terms for the acquired WSSC shares. Sellers also agreed to grant Greeley a Right of First Refusal to purchase Seller's seven remaining shares of WSSC. Purchase price is \$10,900,000.00 plus two Greeley owned farms (The Varra Farm & The Hasbrouck Farm). The ROFR agreement, dry-up covenants, revegetation covenants, lease for the acquired water rights and leases for water rights associated with the two farms are included in the PSA. The total compensation in the form of both cash and farm property for the Water Rights is \$12,900,000.00.

Mr. Miller moved, seconded by Vice-Chairman Todd to approve the Purchase and Sale Agreement with Longs Peak Dairy and to authorize the Director, or his designee, to make minor amendments to the agreement, including but not limited to, contract deadlines and property descriptions, and recommend to City Council sale of the City owned property identified therein. The motion carried 5-0.

9. Non-Potable Development Policy Update

Mr. Dial reviewed the history of non-potable water usage in Greeley and discussed the long-term financial and water resource need to expand Greeley's non-potable system. Mr. Dial explained that to meet the non-potable usage projected in the non-potable master plan, the non-potable must expand as new development occurs. The proposed non-potable policy will require the installation of non-potable infrastructure in new development in most cases and will result in lower overall costs to the water rate payer and the development community in the long-term. A tentative schedule was proposed that would finalize the proposal by early fall. The Board provided feedback regarding their

preferred policy structure and directed staff to continue refining the policy as staff communicates it to interested stakeholders.

10. Utility Rate Affordability Update

Mr. Dial explained that in late 2020, staff presented background material relating to the need and potential options for creating a utility bill assistance program. He reviewed a pilot program proposal that will build upon Greeley's Food Tax rebate program. The proposed program would be based on income eligibility, which is the same as the food tax rebate. For utility customers who qualify, a \$45 credit would be applied to utility bills in June/July. Staff proposed to submit the pilot program as a budget increase request for the 2022 budget and would finalize the businesses processes if it is approved.

11. Legal Report

Jim Noble of Welborn, Sullivan, Meck & Tooley provided this month's legal report to the Board.

Based on a review of the March 2021 Water Court Resume, Mr. Noble recommended that the Board authorize filing a statement of opposition in Case Number 21CW3023. This is an Application of the Town of Berthoud for a change of water rights for 34 shares (out of 100) in the Ryan Gulch Reservoir Company for municipal uses. Ryan Gulch Reservoir releases water to the Big Thompson River. This application also includes two exchange rights on the Big Thompson River in the same stream reach as Greeley's exchanges and in the vicinity of the Greeley-Loveland Irrigation Company diversion structures. Mr. Noble recommended that Greeley file a statement of opposition to ensure that Applicant's claims do not cause injury to Greeley's Big Thompson River water rights and exchanges.

Vice-Chairman Todd made a motion, seconded by Mr. Miller, that the Board authorize the filing of statement of opposition in Case No. 21CW3023 for staff and legal counsel to seek resolution of issues raised by this cases consistent with Water and Sewer Board Resolution No. 3 (2015). The motion carried 6-0.

12. Director's Report

Mr. Chambers reported on the following items:

- Windy Gap Firing Project Activity Update
- Wildfire Mitigation Update

17. Such Other Business That May be Brought before the Board and Added to This Agenda by Motion of the Board

There were no additional items brought before the Board and added to the agenda.

Chairman Evans adjourned the meeting at 4:32 p.m.

Harold Evans, Chairman

Shannon Metcalf, Office Manager

WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE _____

NO ENCLOSURE X

ITEM NUMBER: 3

TITLE: WELCOME NEW EMPLOYEES AND
 PROMOTIONS

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE X

NO ENCLOSURE

ITEM NUMBER: 4

TITLE: 2021 WATER CONSERVATION PROGRAM
UPDATE

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

Water conservation has been included in Greeley's overall water supply planning for over 24 years. Throughout this time, the Greeley Water Conservation Program has become one of the most visible and well publicized conservation efforts in Northern Colorado and is a leader in the field throughout Colorado. Staff will provide a summary of the Water Conservation efforts to date, along with a discussion of future conservation planning.



Water Conservation Update

The City of Greeley continues to have one of the most robust Water Conservation programs in Colorado. Highlights of the Water Conservation team include:

Current Programs

- **Life After Lawn** – This “cash-for-grass” rebate incentivize residents to remove turf for more xeriscape landscape, beautifying Greeley and saving water at the same time. Last year, the program replaced 66,854 square feet of turf with an estimated water savings of 2.5 acre-feet per year. As of the end of April, this program received over 83,000 square feet of turf replacement requests from applicants. Landscape assessments are underway.
- **Water Budget Rate Structure** –Water Conservation staff updates all inputs to the water budget billing system weekly to ensure landscape size, persons per household, and current weather conditions are accurate.
- **Water Audits** – Annually, Water Conservation conducts over 300 water audits for residential, commercial, industrial and institutional customers to identify water waste and provide targeted recommendations for repairs and upgrades to irrigation systems. Currently all outdoor water audits are booked through August.
- **Rebates and Discounts** – The Water Conservation team provides various rebates and incentives for water saving indoor fixtures and outdoor water smart plantings. In 2019, 115 showerheads were distributed at public events and in 2020, Water Conservation distributed over 128 Garden in a Box planting kits.
- **Education and Outreach** – Greeley’s Landscape Lecture Series, local teachers’ trainings, and tours provide education on water conservation at every level for the community. Such outreach promotes a general water conservation ethic in the Greeley community.

Future Projects

- **City Center North Parking Lot Landscape Make Over** – In an effort to showcase water wise landscaping, the Water Conservation team has repaired the irrigation system and replanted the two island beds within the parking lot with low water-use and native plants. Planting was completed on May 27th. Water Conservation will remain engaged in the future City Facility capital improvement projects to ensure municipal irrigation and landscapes remain water wise.
- **Water and Land Use Planning** – In conjunction with the updated Landscape Code, the conservation team drafted a landscape and irrigation criteria and standard. This document will increase water conservation practices for future commercial and industrial development. The Water Conservation team is working with internal (Community Development) and external (developers, landscapers) members for insight. Once comments are compiled, a draft criteria will be presented at a future Board meeting.

- **Water Budget** – Recognizing that many new residents to Greeley do not understand the water budget billing system, Water Conservation has created and will be mailing welcome packets for new water customers to educate them on their water budget. In addition, Water Conservation will be streamlining the water budget process by collecting and analyzing ground truth data. New aerial imagery used to develop water budgets will be collected in 2022.
- **Xeriscape Garden and Reservoirs** – Water conservation continues to promote water saving by “doing” as demonstrated at the Xeriscape Garden. Future plans include new educational signage, and new landscape gardens. The Water Conservation team is facilitating more xeriscape in the landscape at the 23rd Ave/ Reservoirs site and Centennial Park to provide internal water savings.
- **Affordability** – Working with Finance, Water Conservation will assist in developing solutions to help our low-income customers that are impacted by water and sewer bills.
- **Advance Metering Infrastructure (AMI)** – Water Conservation is planning for the rollout of AMI by developing processes to use real time data to promote water savings and communicate conservation to our customers.

Grants

- **WaterNow Alliance and Western Water Resources** awarded Water Conservation a Project Accelerator Grant. This grant provides Greeley a third-party review of the effectiveness of its water conservation programs. These experts are currently analyzing data on water use, socioeconomic status, and geographic distribution in order to assess the value each program brings to the City’s residents. These tools will support the next Water Conservation Plan update and be a compass for future water conservation programs.
- **Bureau of Reclamation- Advance Metering Infrastructure (AMI)** – The Water Conservation team assisted writing the awarded AMI grant and continues to provide team support with grant reporting requirements. Our team continues to work with Utility Billing ensuring communication through this meter transition.

Publications/Outreach

- **WaterNow Alliance** will feature Greeley’s Water Conservation program as a Tap into Resilience Case Study in 2021.
- **South Platte Basin Implementation** website will showcase Greeley’s Water Conservation efforts in 2021.
- **Landscape Lecture Series** – On-line and in person lectures and workshops on landscape topics to improve water efficiency outdoors.
- **Speakers Bureau** – Speakers for classrooms, civic clubs and other groups on water efficiencies.
- **Teacher Training** – Training programs on water and conservation issues for local teachers.
- **Tours** of water-related facilities and watersheds.
- **Social Media** – Water conservation uses Facebook (~4,000 followers), Twitter (~2,700 followers) and Pinterest (~162 followers) to convey water conservation messaging.
- **Media** – It is important to stay connected with our community. Water conservation does so through radio announcements, short videos, public events participation, newsletters, bill inserts, websites, brochures, and pamphlets.

Representation

- Colorado Caring for our Watershed
- Colorado WaterWise Board & serve on various committees
- CO Water & Land Use Planning Alliance
- Metro Drought Coordination Group
- Conservation AMI User Group
- Colorado WaterWise Small Tool Committee member
- Rocky Mountain Section of American Water Works Communication Chair
- Rocky Mountain Section of American Water Works Conservation Committee members

Water Conservation Program Update

Water & Sewer Board | June 16, 2021



Water Conservation -Who we are



Water
Conservation
Manager
Dena Egenhoff



Water
Conservation
Administrator
Ruth Quade



Water
Conservation
Specialist I
Kevin Hartley



Seasonal
Dave Anderson



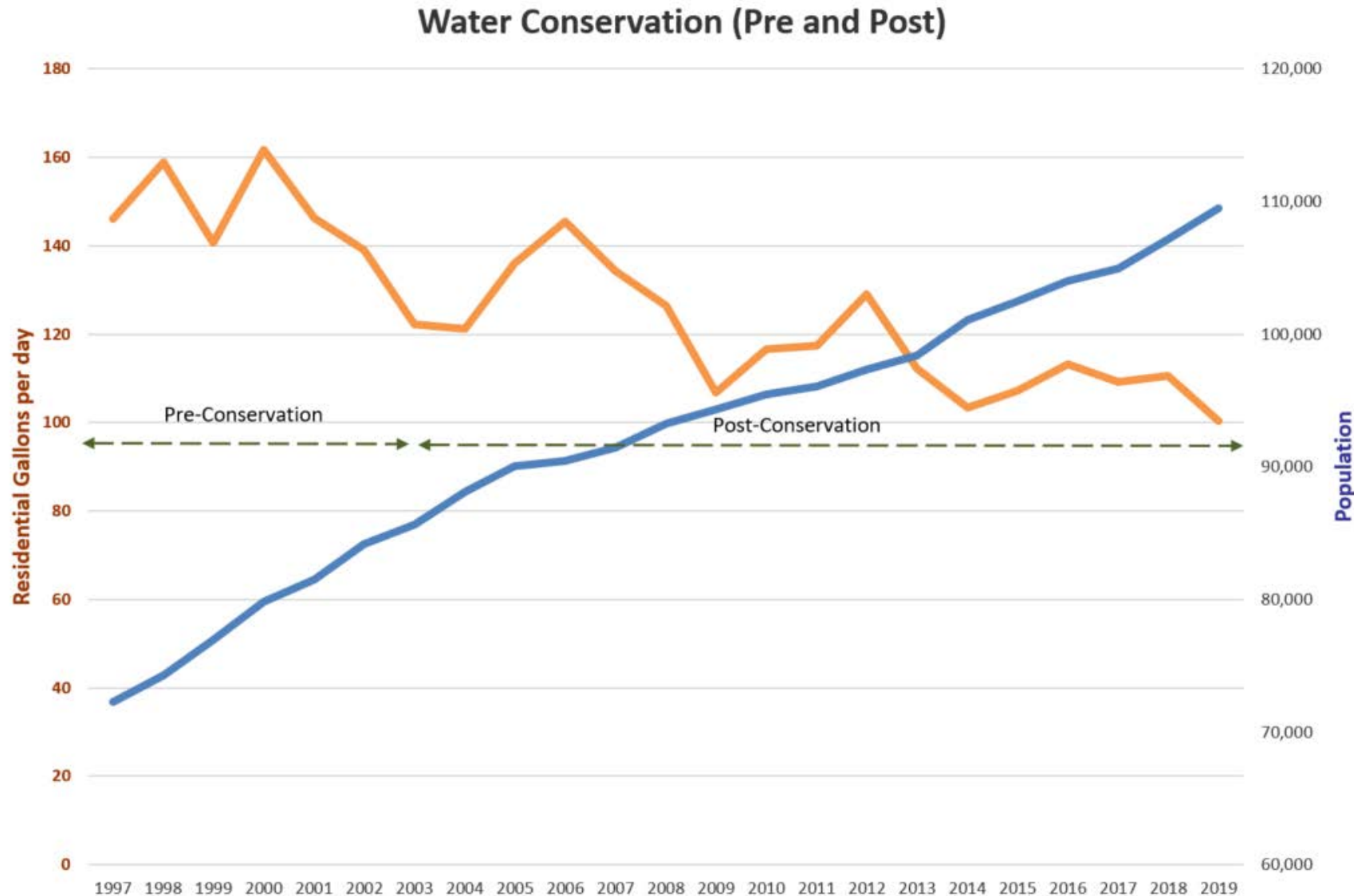
Seasonal
Katie James



Part Time
Pam Wright



What we do



- Cost savings
- Water and Wastewater treatment benefits
- Water stewardship and sustainability
- Direct customer benefits
- Regulatory compliance
- Public Perception



Current Programs

- Water Budget Rate Structure
- Water Audits
- Rebates and Discounts



Current Programs

Outreach and Engagement

- Speakers for classrooms, civic clubs, and other groups
- Landscape Lecture Series
- Teacher Training
- Tours
- Social Media
- Media releases



Current Projects

Life After Lawn

- “Cash-for-grass” rebate programs to remove turf for more xeriscape landscape.
- 2020 replaced 66,854 sf of irrigated turf
- 2021 over 83,000 sf of requests



Current Projects

- Outside technical review of Greeley's conservation programs
 - Funded by WaterNow Alliance and Western Water Resources
 - Cost-benefit analysis
 - Review socioeconomic status and geographic distribution for water conservation programs
- Advance Metering Infrastructure (AMI)
 - Provide team support for reporting requirement
 - Utility billing communication and training on WaterSmart customer portals



Representation

- Colorado Caring for our Watershed
- Colorado WaterWise Board & serve on various committees
- CO Water & Land Use Planning Alliance
- Metro Drought Coordination Group
- Conservation AMI User Group
- Colorado WaterWise Small Tool Committee member
- Rocky Mountain Section of American Water Works Communication Chair
- Rocky Mountain Section of American Water Works Conservation Committee members



A decorative wavy line in a light beige or cream color, flowing horizontally across the top of the slide. It has a soft, painterly texture and serves as a background element for the title.

Future Projects & Programs

- City Center North Parking Lot Landscape Makeover
- Water and Land Use Planning
- Water Budget
- Xeriscape Garden and Reservoirs
- Affordability
- Advance Metering Infrastructure (AMI)



Future Projects & Programs

- **City Center North Parking Lot Landscape Make Over**
- **Water and Land Use Planning**
- Water Budget
- Xeriscape Garden and Reservoirs
- Affordability
- **Advance Metering Infrastructure (AMI)**



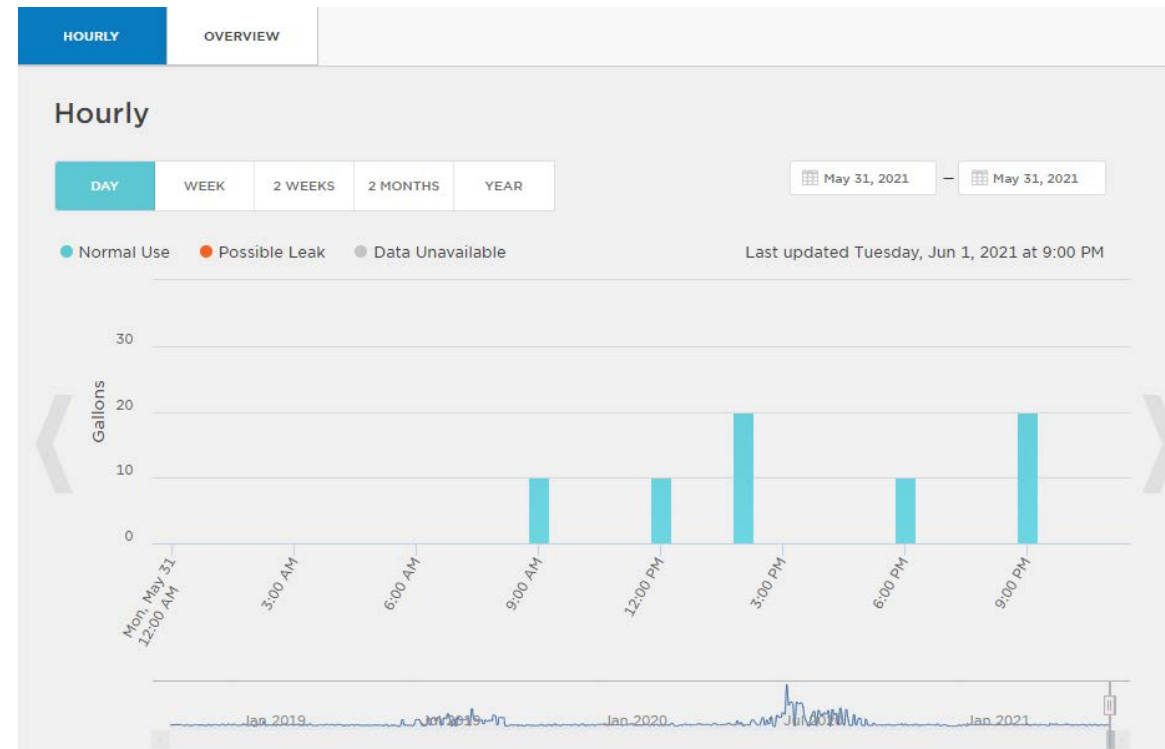
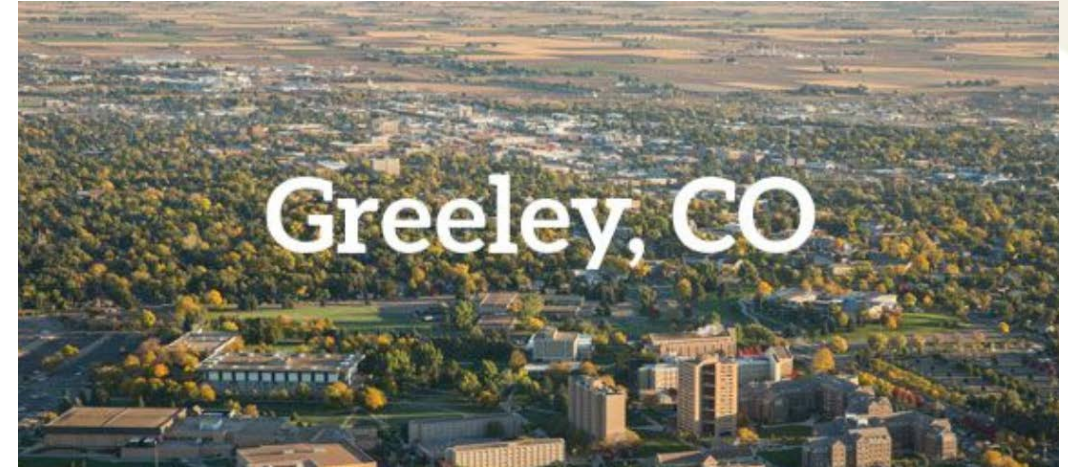
Future Projects & Programs

- **Landscape and Irrigation Criteria and Standards**

- General Provisions
- Soil Requirements and Sustainable Landscape Design
- Irrigation System Design, Installation, Performance Audits
- Landscape and Irrigation System Maintenance

- **Advance Metering Infrastructure (AMI)**

- Real-time consumption
- Leak detection
- WaterSmart Portal
- Communication tool
- Increase efficiency



WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE X NO ENCLOSURE

ITEM NUMBER: 5

TITLE: WASTEWATER COLLECTIONS MASTER
 PLAN UPDATE

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

Water and Sewer Department has embarked on the process of completing a Wastewater Collections Master Plan. The project started in 2018 with the selection of CDM Smith to complete the engineering services based on past experience with Greeley and extensive master planning qualifications. The following year started with monitoring flows in the entire collection system, which involved 12 temporary flow meters, nine permanent flow meters, two rain gauges, and 60 days of data collection. This critical step was followed by developing the existing system model and updating the Utility Plan report with North Front Range Water Quality Planning Association. The project then progressed to utilizing the system model to look at existing conditions of the system and planning the expansion of the system in the 5-year, 20-year, and full system build-out time frames. 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 final aspects of the project also 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.

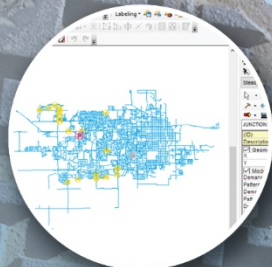
Staff will bring this item back to the Water Board in July with the Transmission & Distributions Master Plan for recommendation to City Council.



Sanitary Sewer Master Plan

June 16th, 2021

Water Board Presentation



**CDM
Smith**

Outline

- CDM Smith's Master Plan (MP) Experience
- MP Goals and Mission Statement
- Existing System & Model
- Master Plan Development
- Sanitary Sewer System MP Overview
- Stakeholder/Community Engagement
- Q&A

CDM Smith Experience

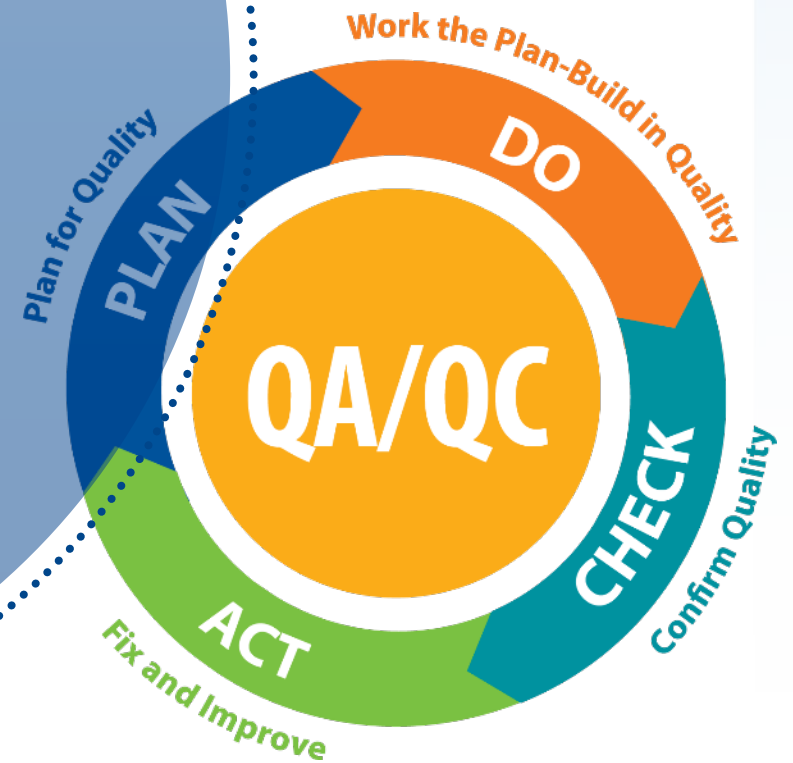
- CDM Smith has successfully completed over 500 Master Plans in the past 10 years
- CDM Smith has over 40 years of national experience in master planning
- More than 200 professionals versed in hydraulic modeling
- Project PM who has worked on over 20 water & sewer master plans



CDM Smith

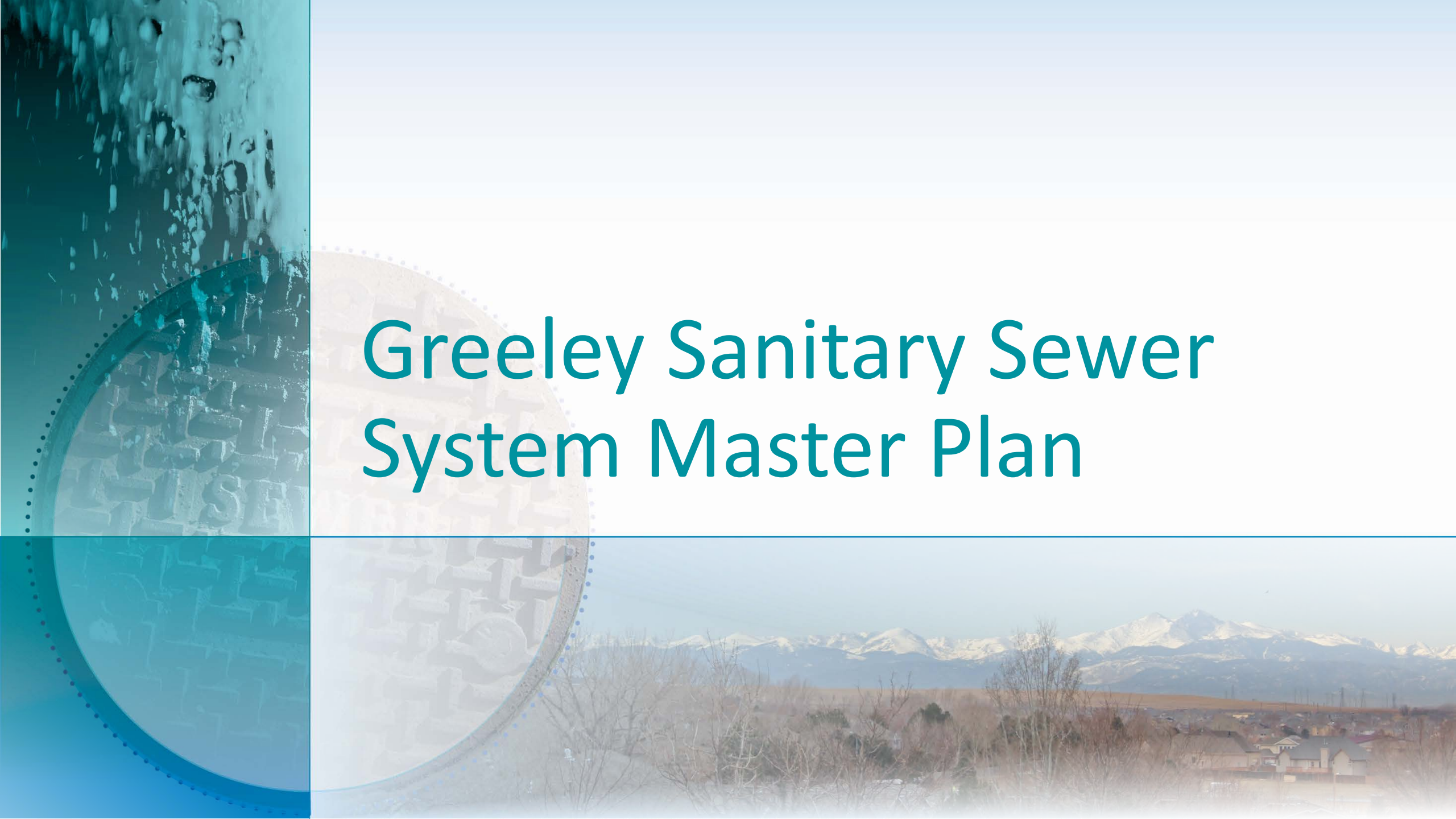
Project Goals

- ***Coordinated, Consistent, Integrated*** Master Plans
- Collaboration with City Staff and regional stakeholders
- Project within schedule/budget
- Quality assurance/control



Mission Statement

Provide City of Greeley a *reliable, defensible, and accurate* Master Plan that will serve as a 20-year planning guide by analyzing the infrastructure needed to improve system operations, serve population growth areas, and to integrate water, sewer, and non-potable water systems to make it a *cohesive plan*.



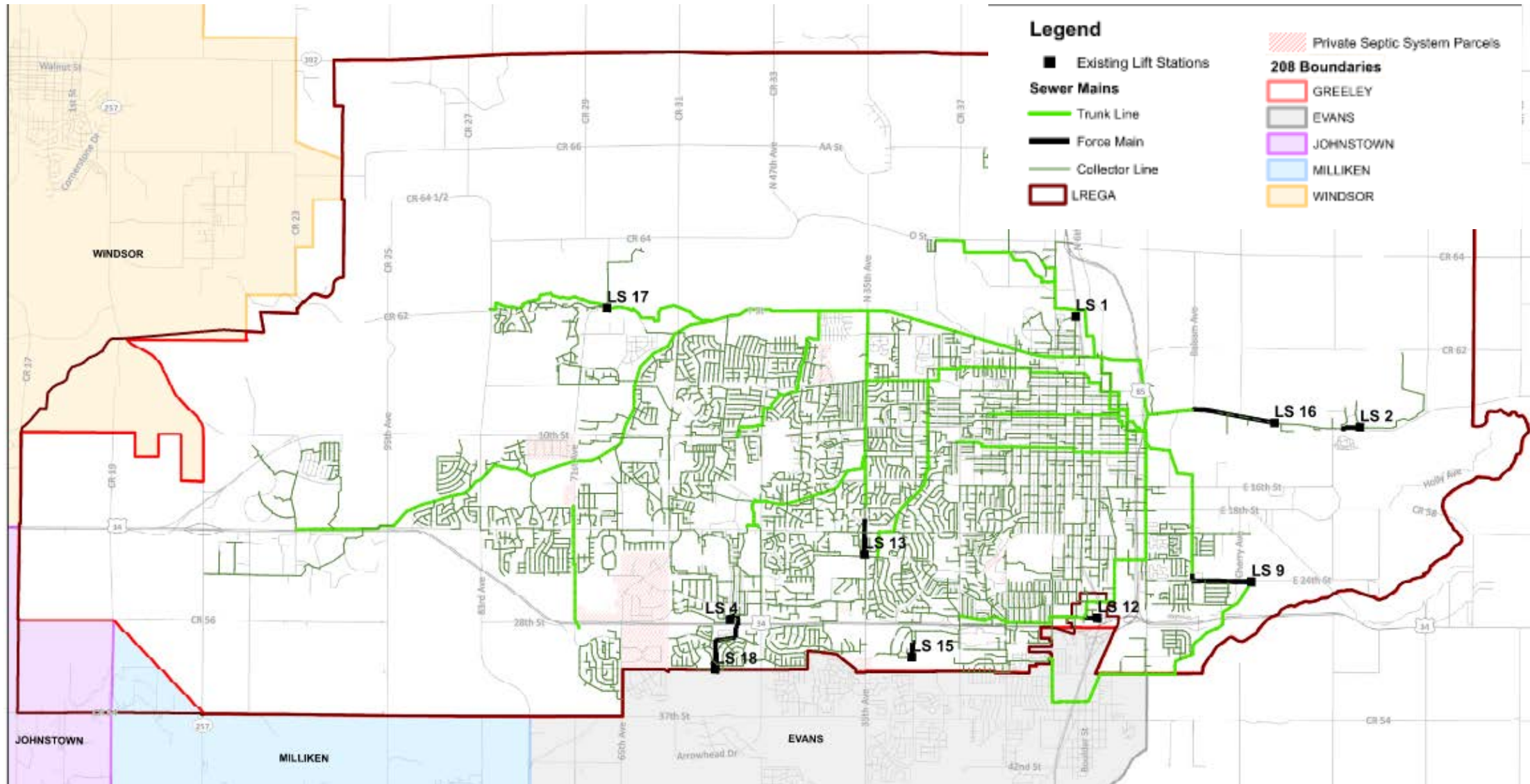
Greeley Sanitary Sewer System Master Plan

Existing Wastewater System

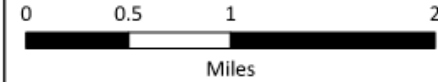
- 350 miles of sewer pipe (4" – 21" diameter)
- 17 miles of interceptor (24" – 48" diameter)
- 10 Lift Stations
- 1 Wastewater Treatment Plant

Diameter	Length (ft)
4	4,697
6	88,818
8	1,398,226
10	131,384
12	78,455
15	54,568
16	465
18	51,779
21	38,688
24	17,008
27	10,779
30	19,011
36	38,006
42	1,232
48	5,430

Wastewater Master Plan Area



Existing System Model Development



Legend

- Rain Gauge
- Lift Station
- WPCF

Sewer Mains

- Trunk Line
- Force Main
- Collector Line
- Overflow Line

Temporary Flow Meter and Basin

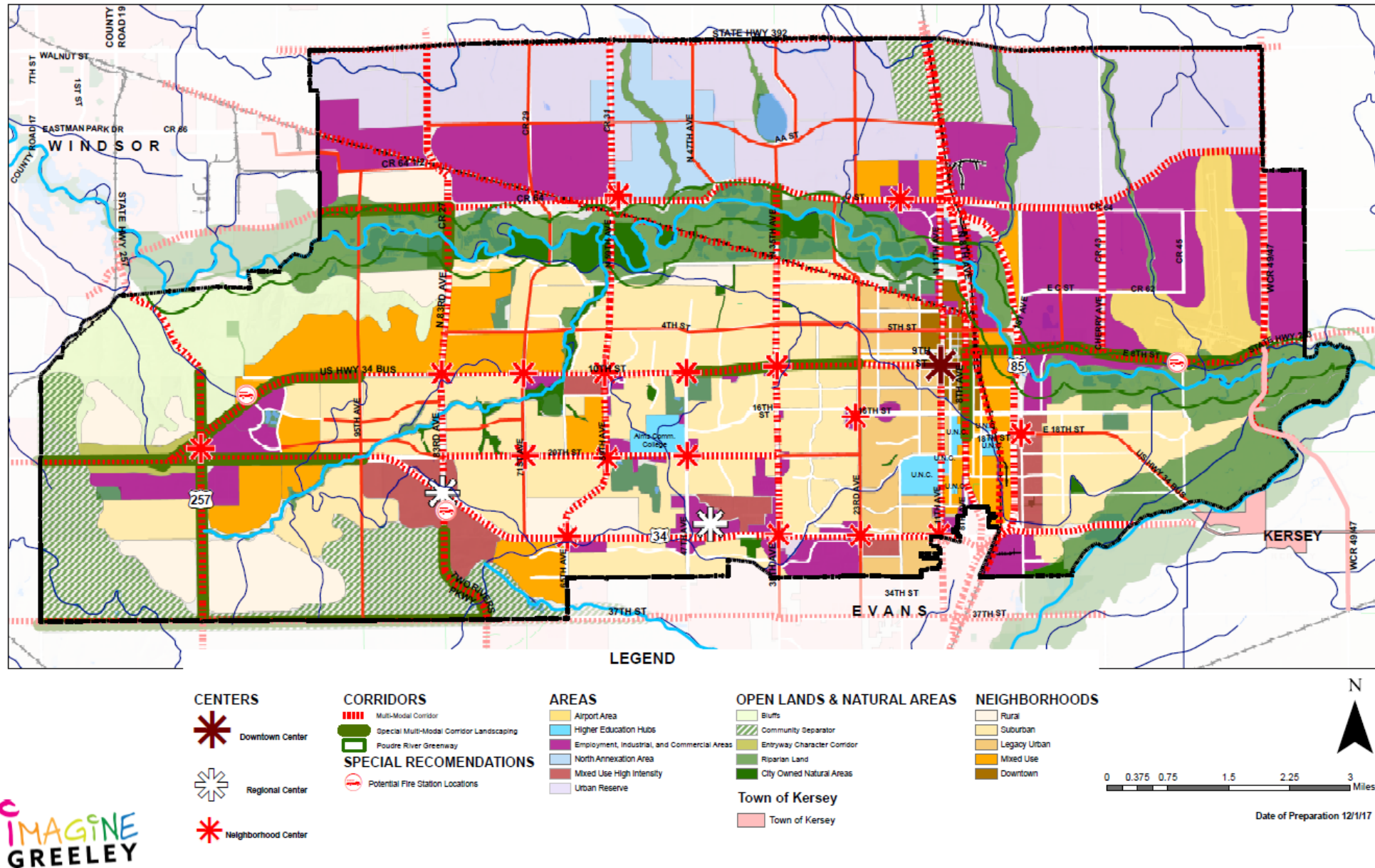
- FM01 Sheep Draw Basin
- FM02 Sheep Draw Basin
- FM03 Hilltop Basin
- FM04 Highland Hills Basin
- FM05 Highland Hills Basin
- FM06 Belair Basin
- FM07 Monfort Basin
- FM08 North Basin
- FM09 Eight Street Basin
- FM10 Central Basin
- FM11 South Basin
- FM12 South Basin

12 temporary flow meters & 9 permanent meters
60 days monitoring, 2 rain gauges

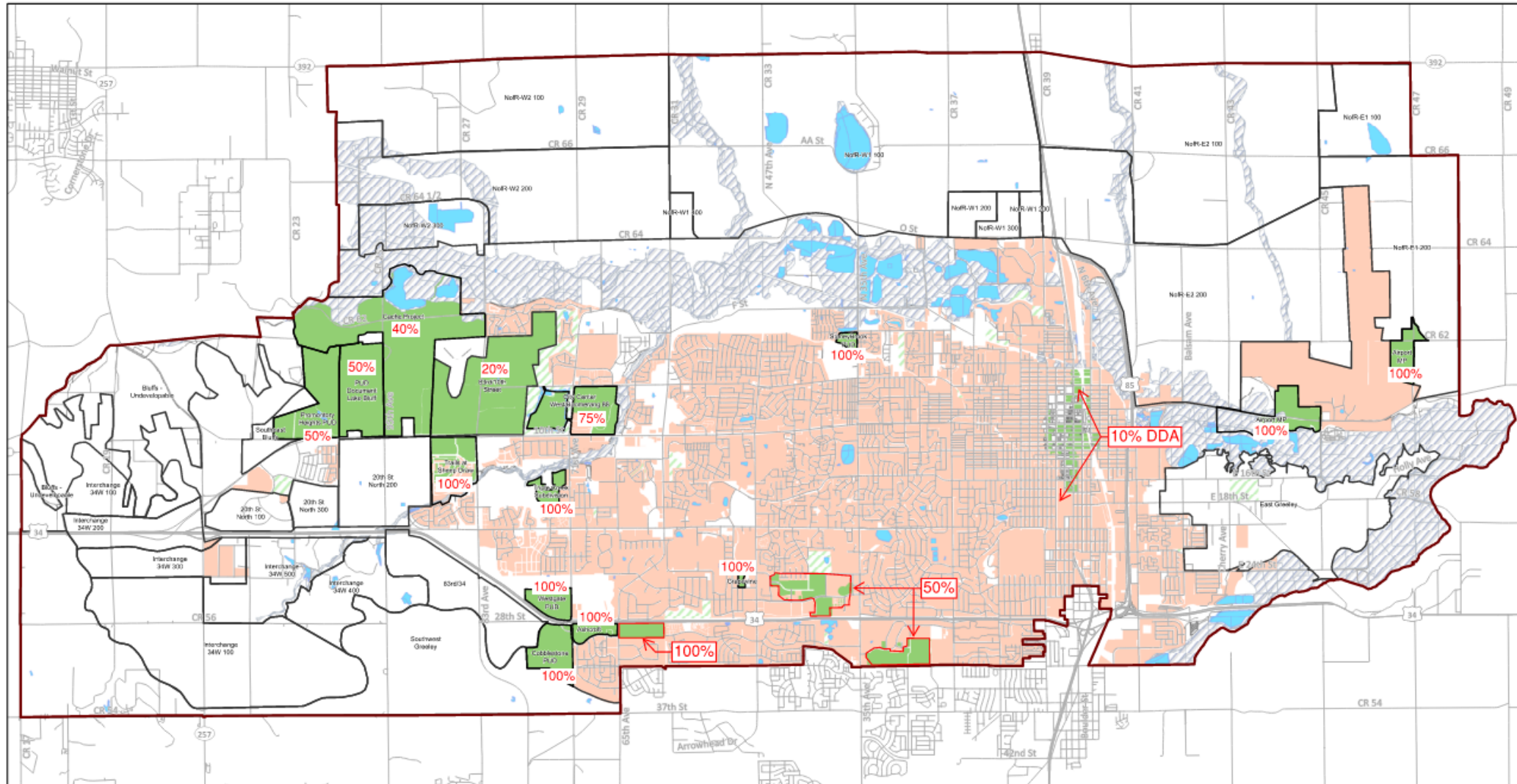


Demand Development

Comprehensive Plan – Land Use Guidance Map



2025 Development



Legend

- Long Range Expected Growth Area (LREGA)
- Demand Projection Area
- Flood Zone
- Lake

% = Percent of Development Completed

- Future Development
- Existing Service Area
- No Development
- Park

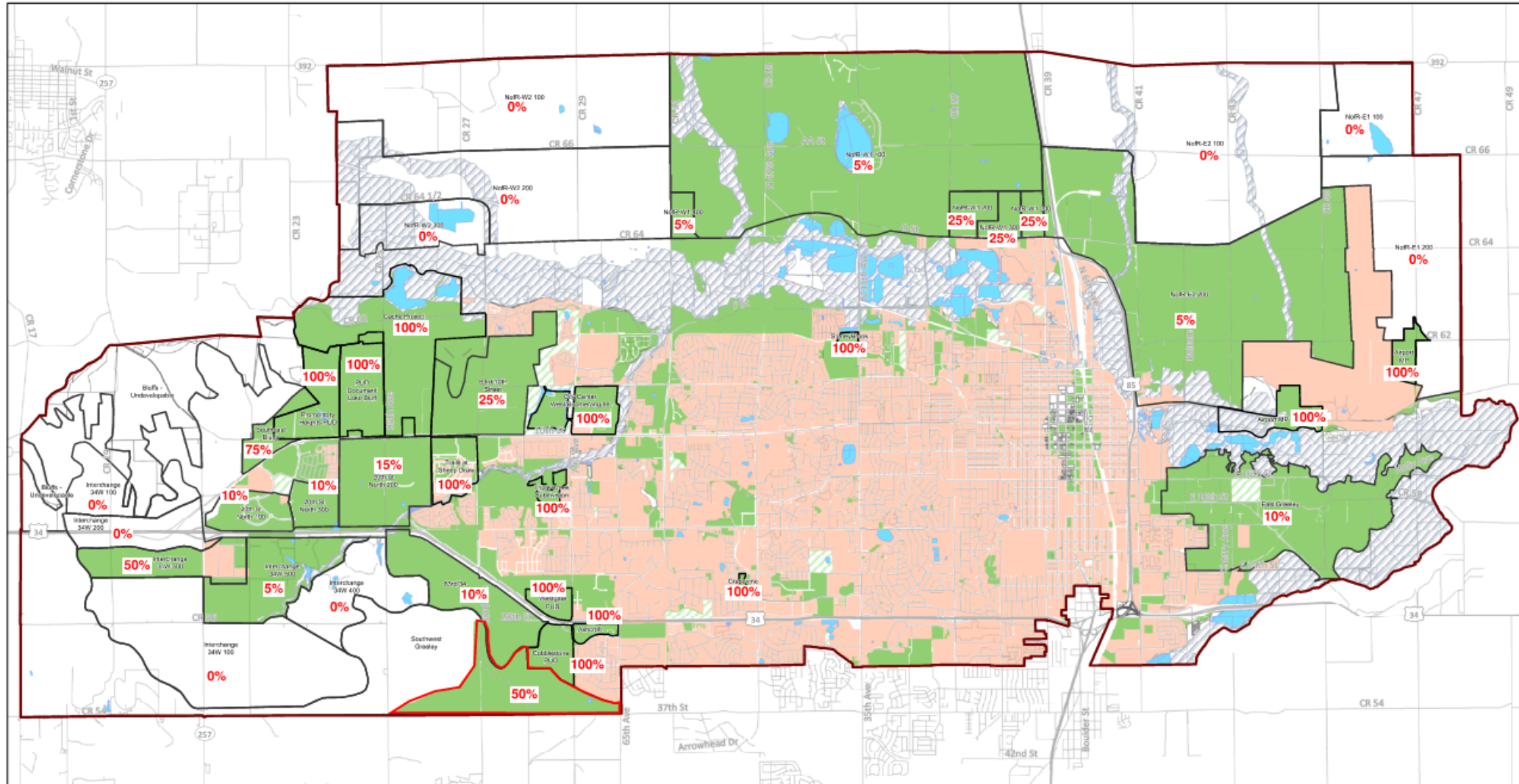
5 Year Development Area
% Complete Projections

Figure 6

Greeley Water System
Master Plan



2040 Development



Legend

- Long Range Expected Growth Area (LREGA)
- Demand Projection Area
- Flood Zone
- Lake

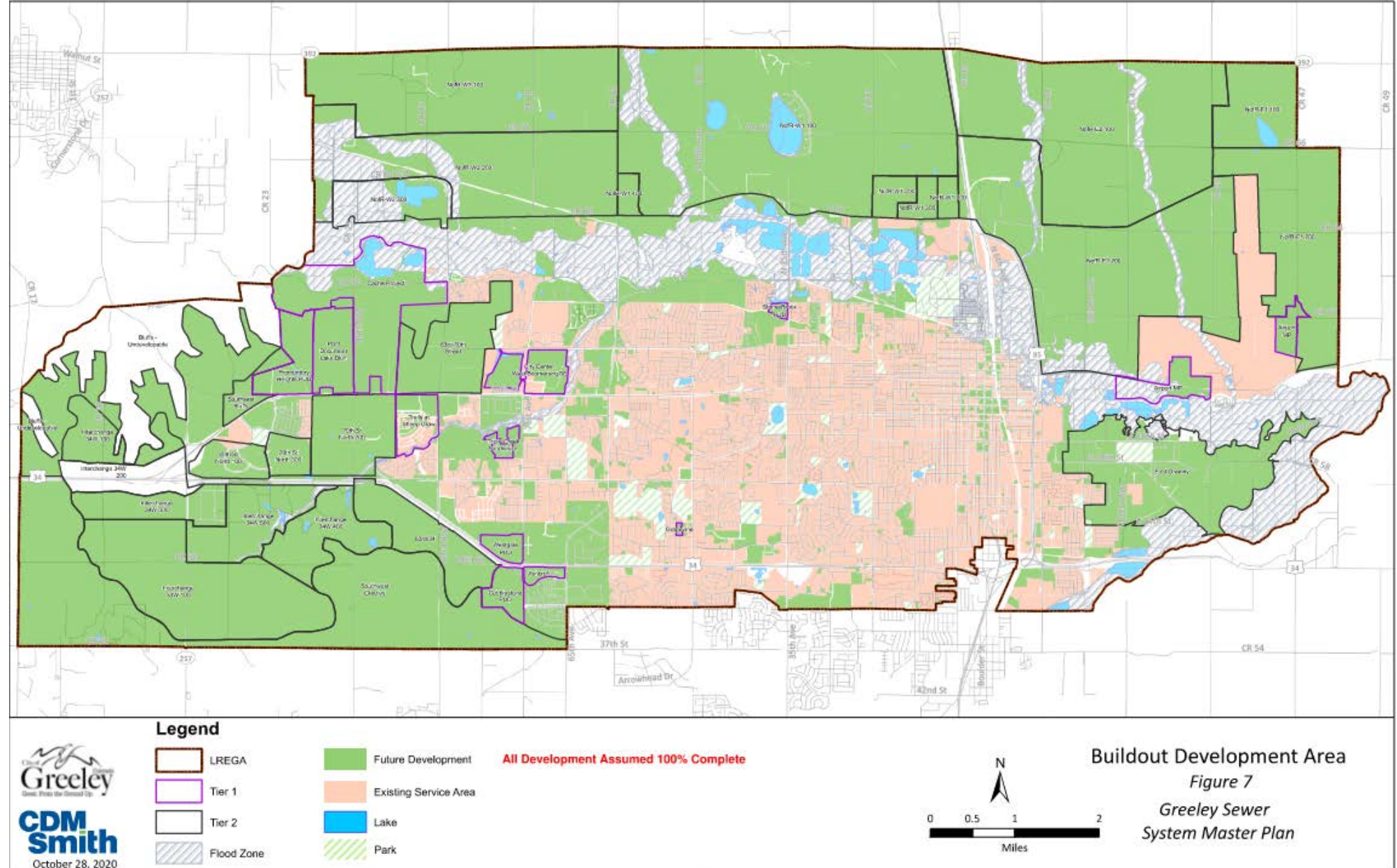
% = Percent of Development Completed

- Future Development
- Existing Service Area
- No Development
- Park



20 Year Development Area
 % Complete Projections
Figure 7
 Greeley Water System
 Master Plan

Buildout Development

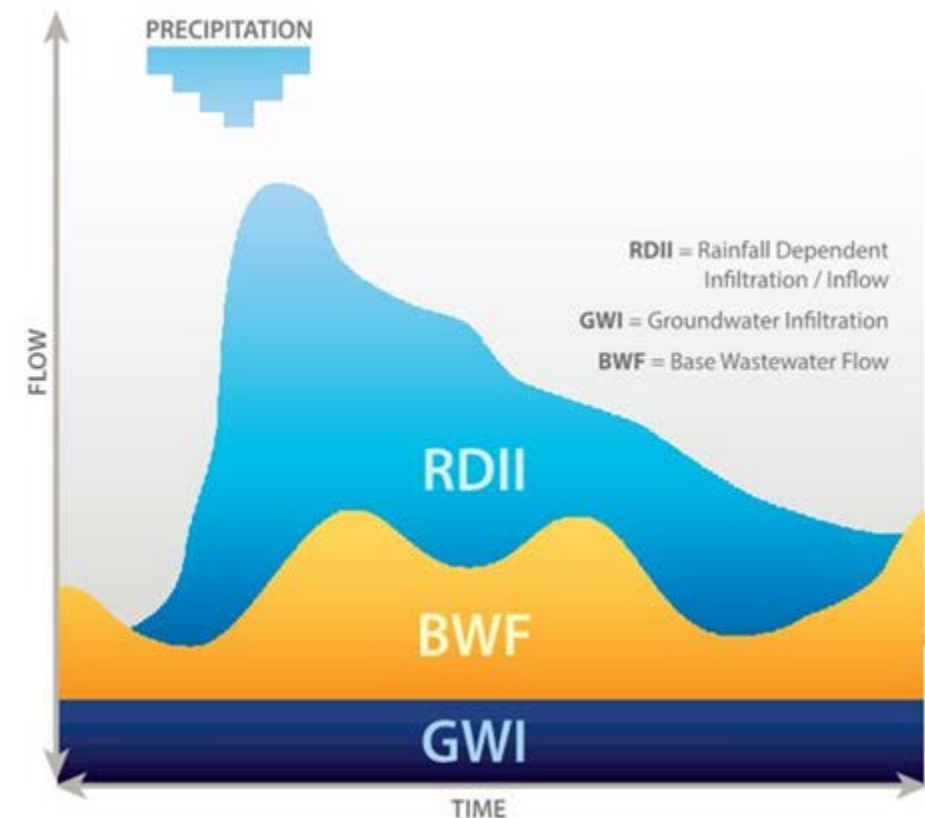




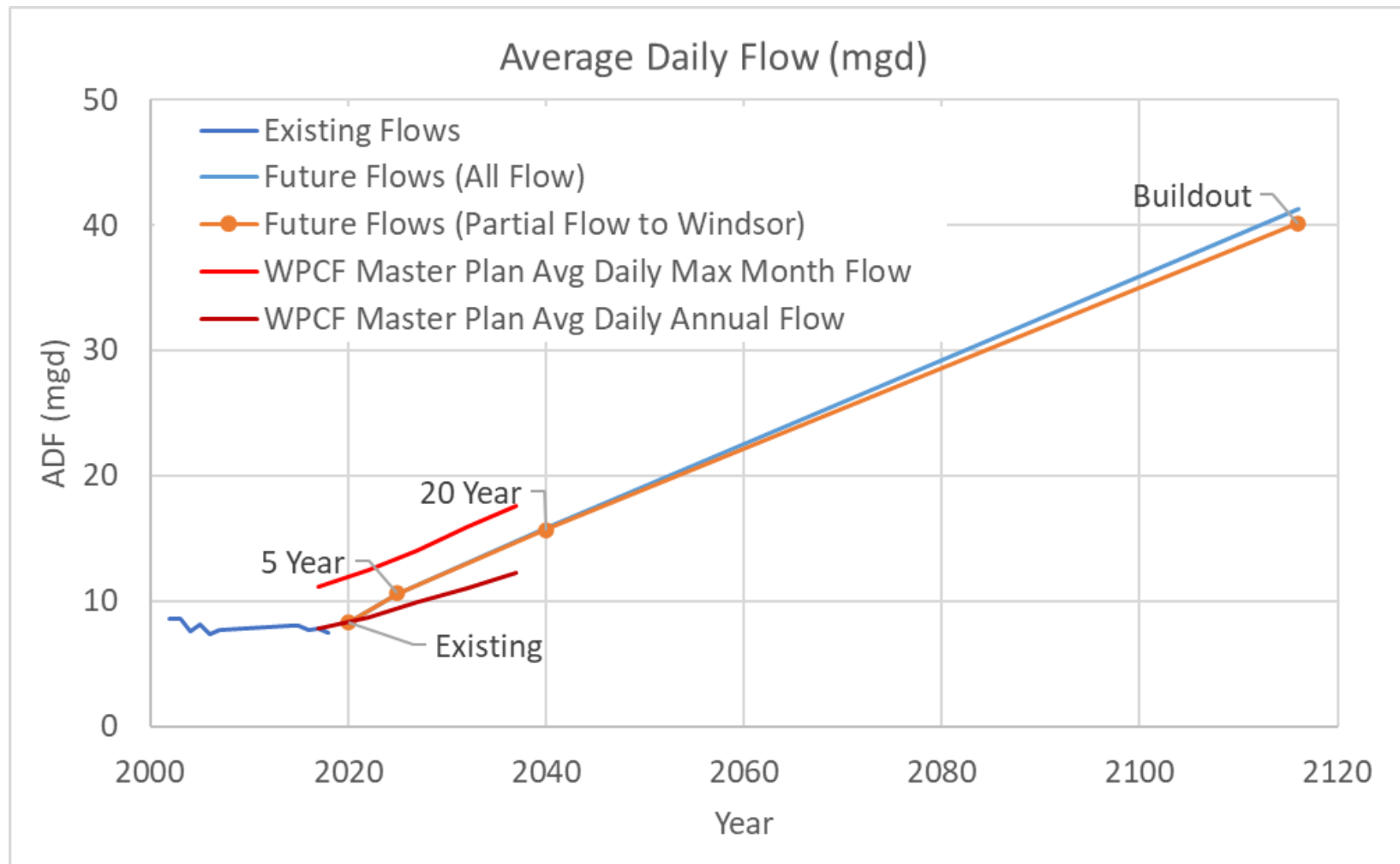
Sanitary Sewer Master Plan

Wastewater Projection Criteria

- Residential Flow – 60 gal/person-day
- Non-Residential Flow
 - Commercial Low 650 gal/acre-day
 - Commercial High 1,500 gal/acre-day
 - Industrial (I-M/I-L) 500 gal/acre-day
- Groundwater Infiltration – 100 gal/acre-day
- RDII – 1000 gal/day-acre peak inflow
- 5 Year, 24-hour Design Storm
 - Peak hour rainfall of 1.13 inches

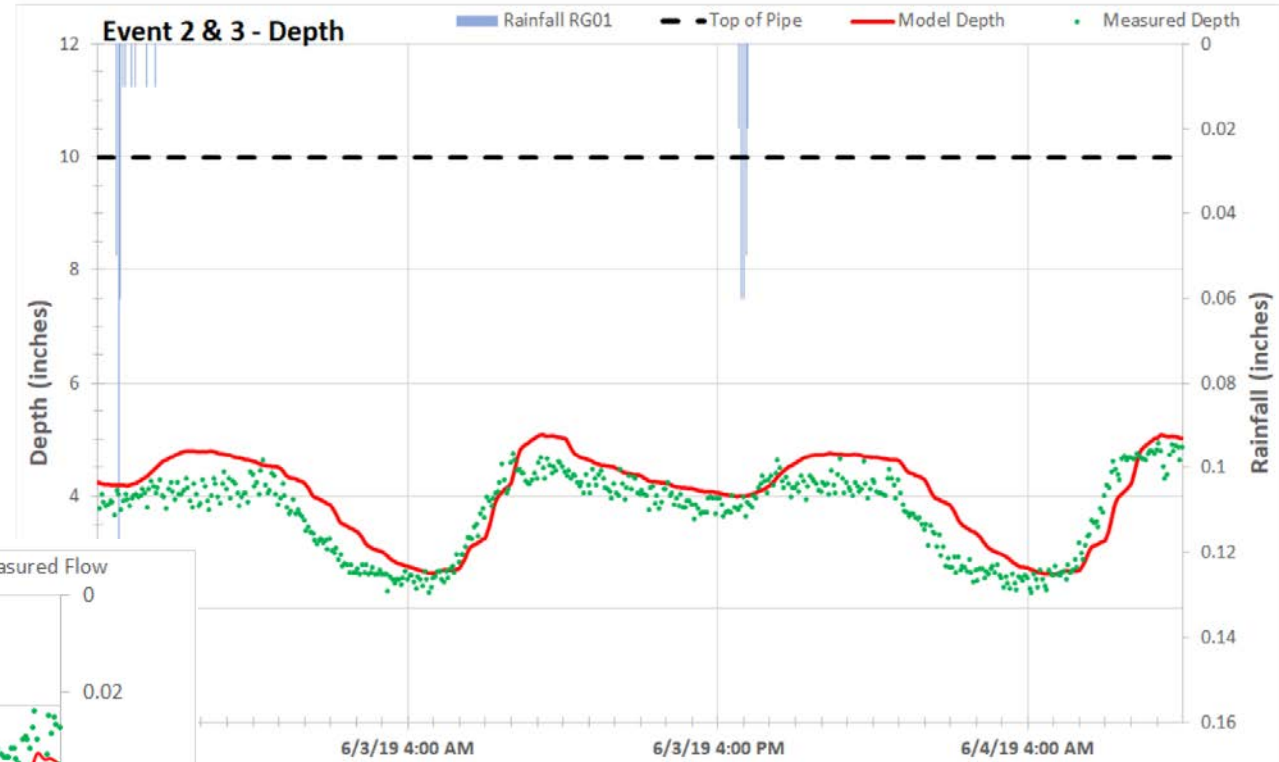
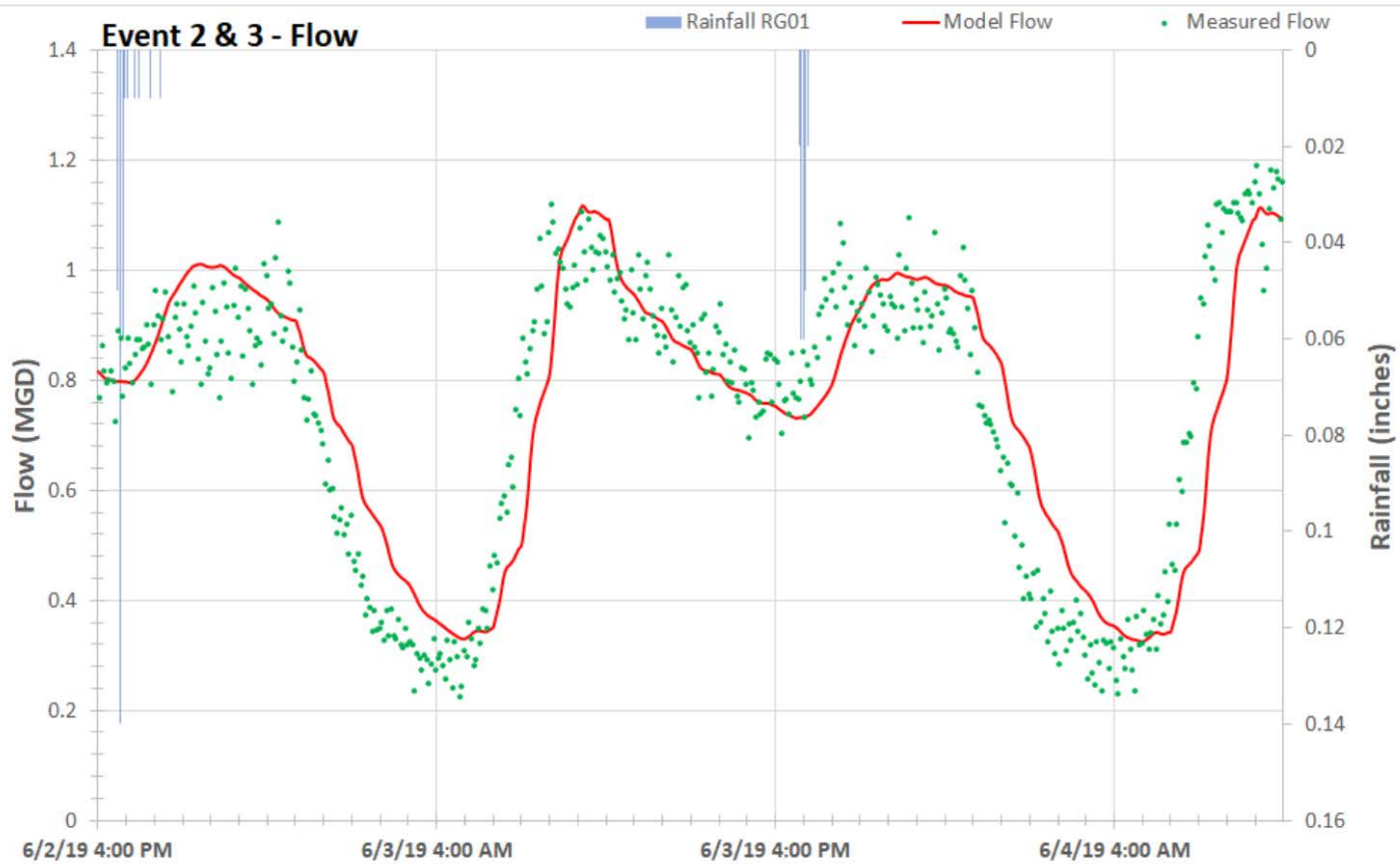


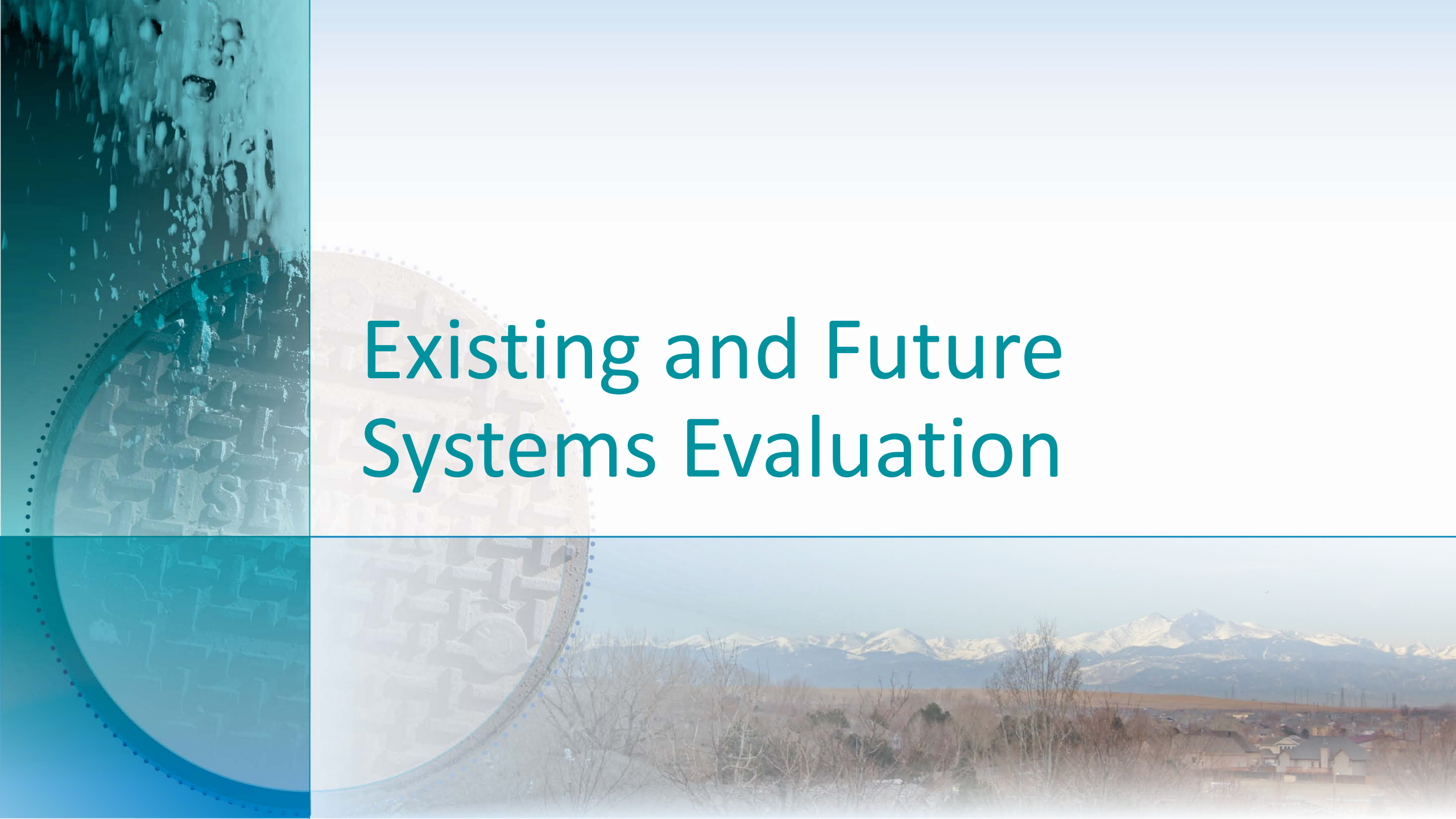
Wastewater Flow Projections



Calibration - Example

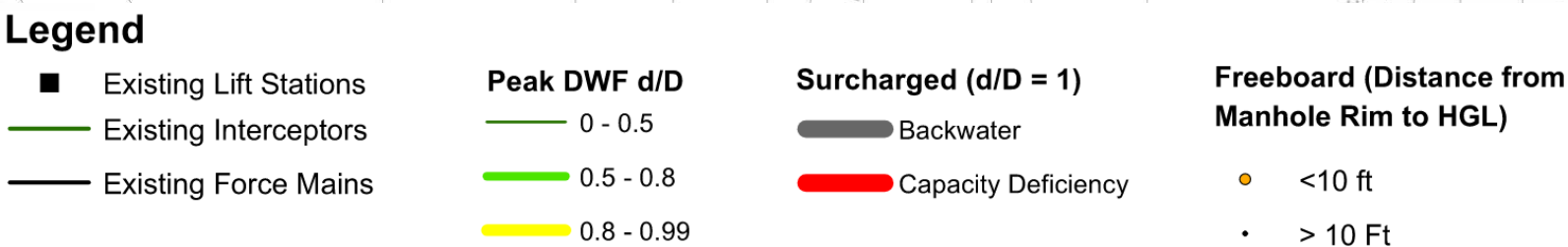
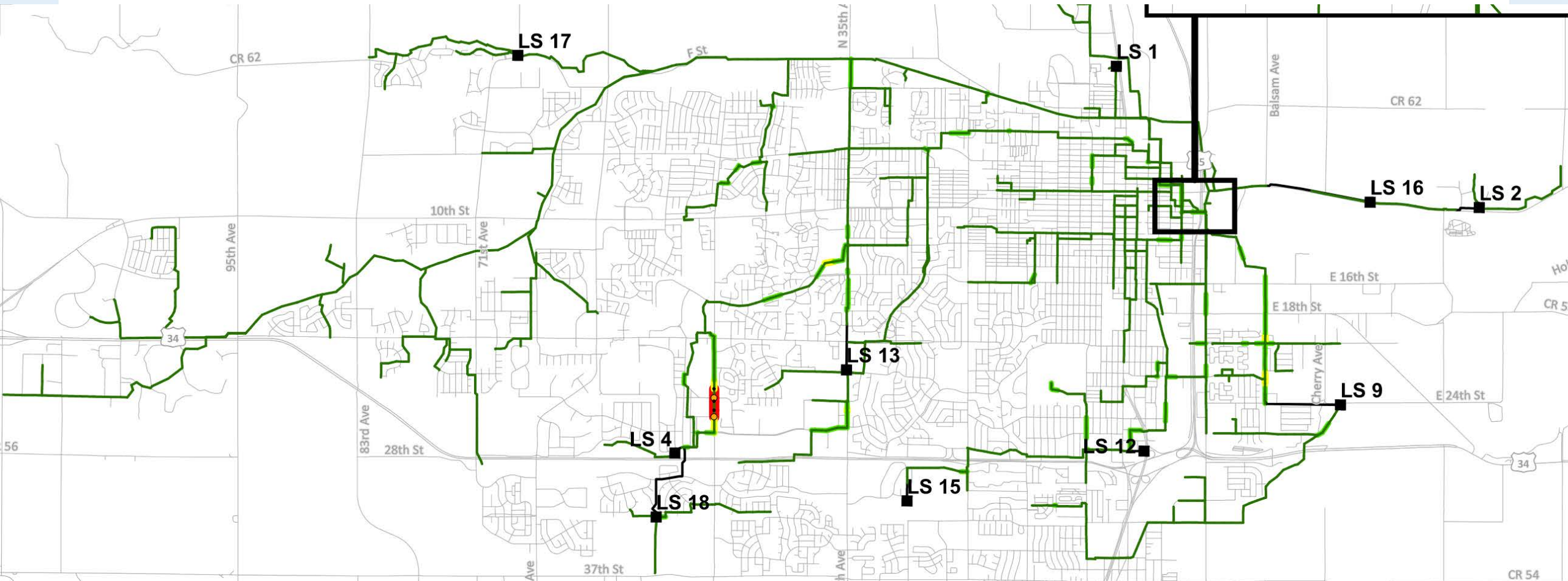
- Green Dots – Flow Monitoring Data
- Red Line – Model



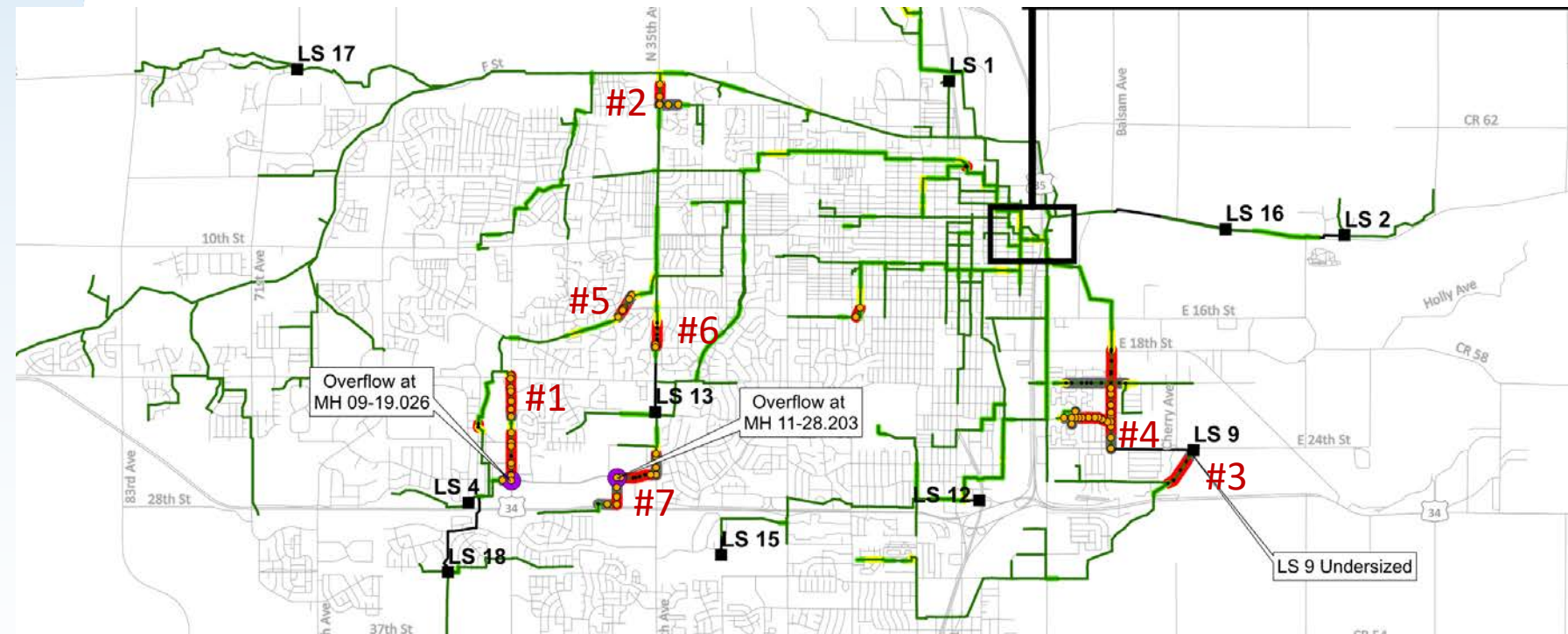


Existing and Future Systems Evaluation

Existing System Capacity Analysis – Dry Weather



Existing System Capacity Analysis – Wet Weather



Legend

- Existing Lift Stations
- Existing Force Mains
- Existing Interceptors

Peak WWF d/D

- 0 - 0.5
- 0.5 - 0.8
- 0.8 - 0.99

Surcharged (d/D = 1)

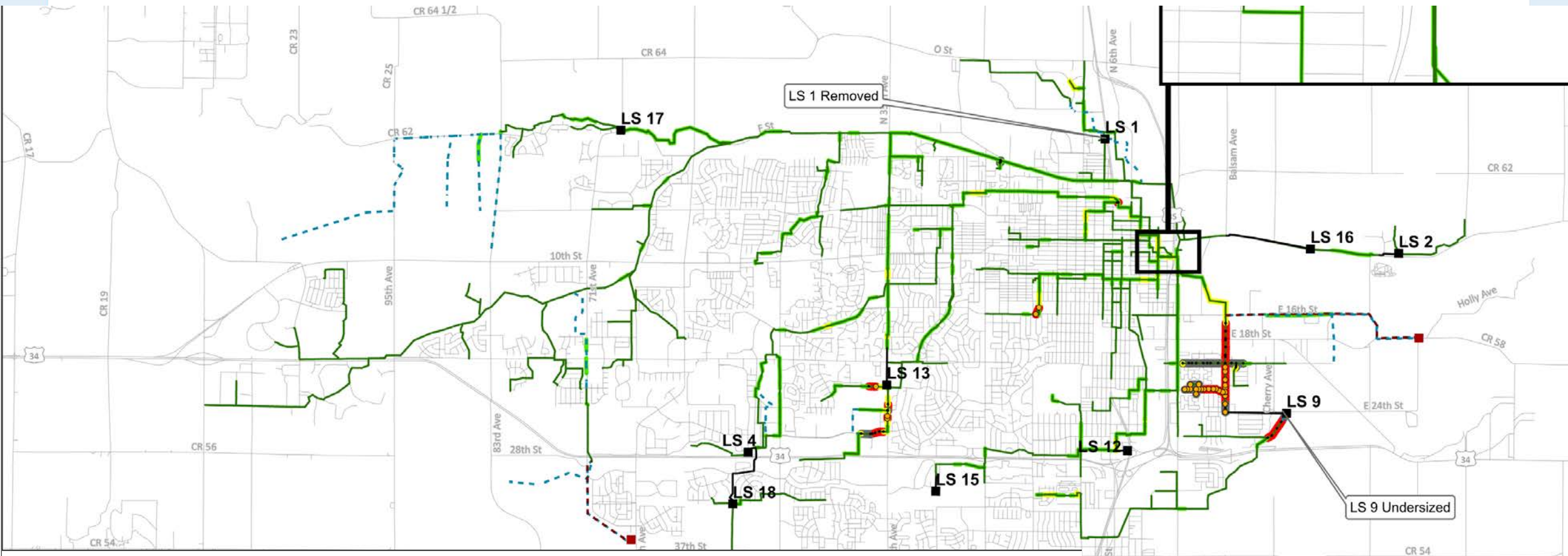
- Backwater
- Capacity Deficiency

Freeboard (Distance from Manhole Rim to HGL)

- <10 ft
- > 10 Ft
- Predicted Manhole Overflows

1. 47th Ave
2. 35th Ave (C St to F St)
3. Upstream of LS 9
4. Downstream of LS 9 (Balsam)
5. Bittersweet Park
6. 35th Ave (19th St Rd to 17 St)
7. Centerplace Dr & 25th St

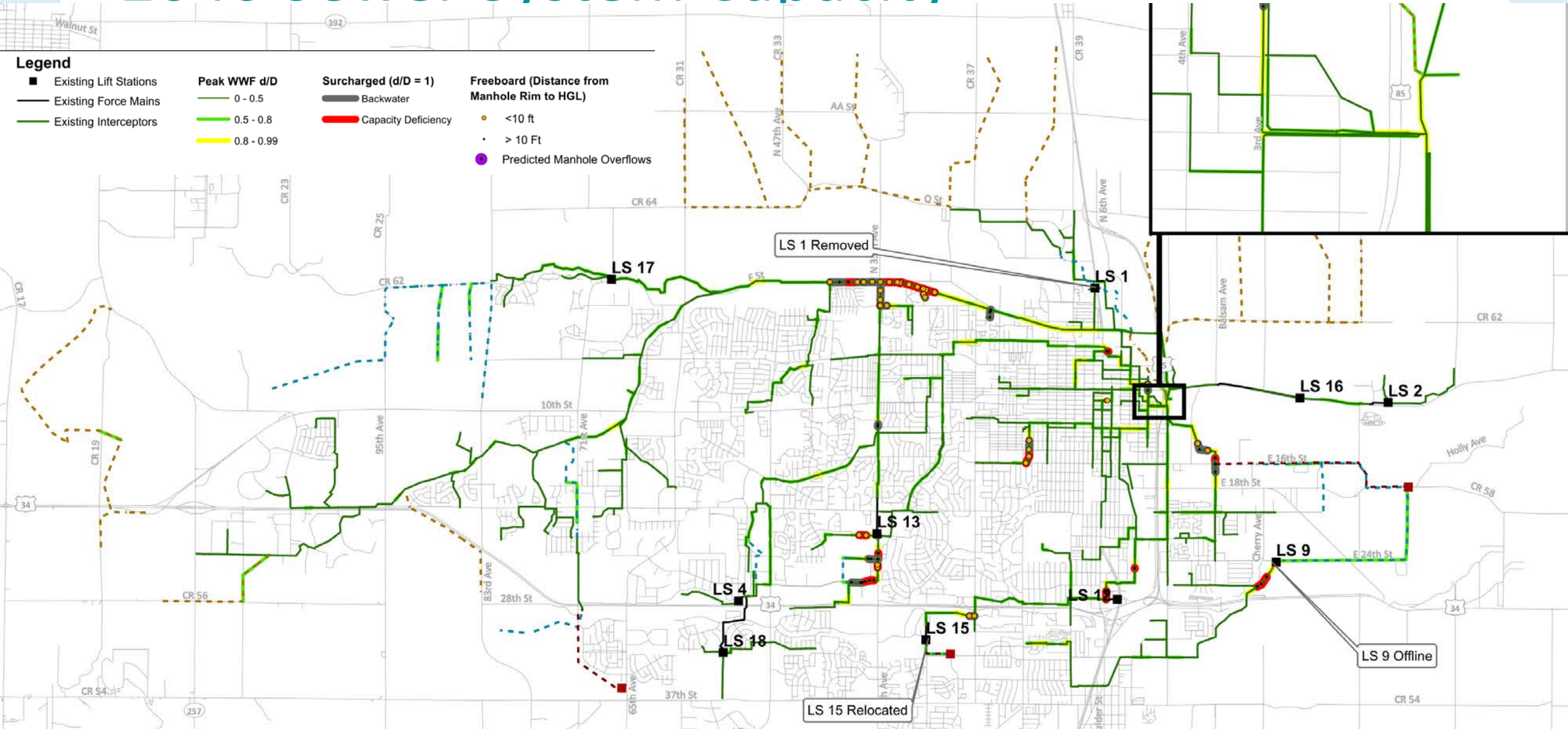
2025 Sewer System Capacity



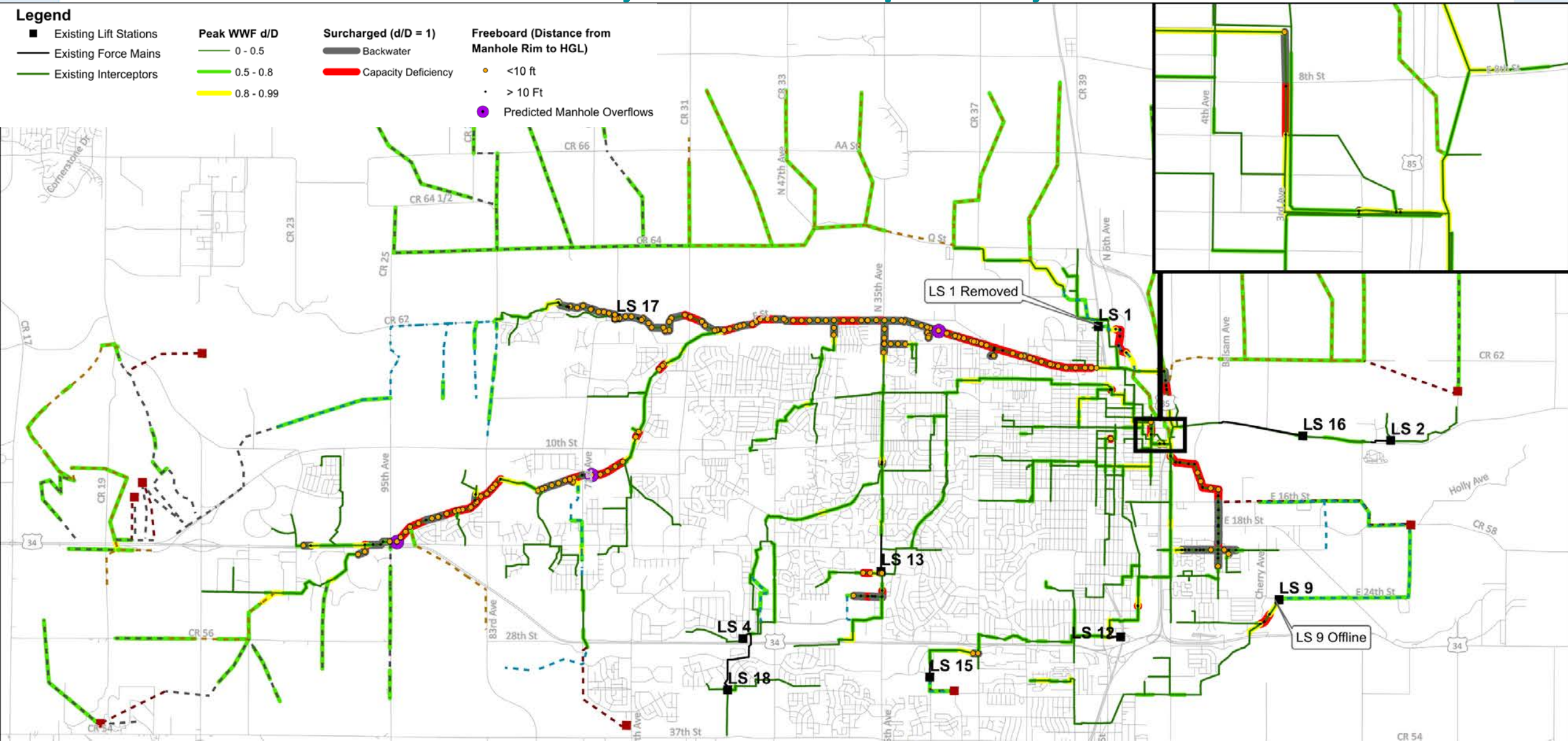
Legend

- | | | | |
|--------------------------|---------------------|-----------------------------|---|
| ■ Existing Lift Stations | Peak WWF d/D | Surcharged (d/D = 1) | Freeboard (Distance from Manhole Rim to HGL) |
| — Existing Force Mains | — 0 - 0.5 | — Backwater | • <10 ft |
| — Existing Interceptors | — 0.5 - 0.8 | — Capacity Deficiency | • > 10 Ft |
| | — 0.8 - 0.99 | | • Predicted Manhole Overflows |

2040 Sewer System Capacity

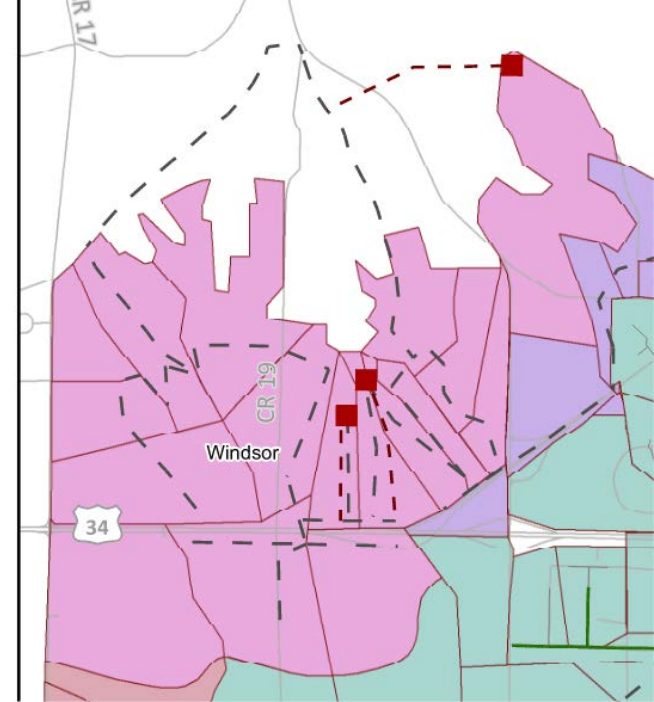


Buildout Sewer System Capacity

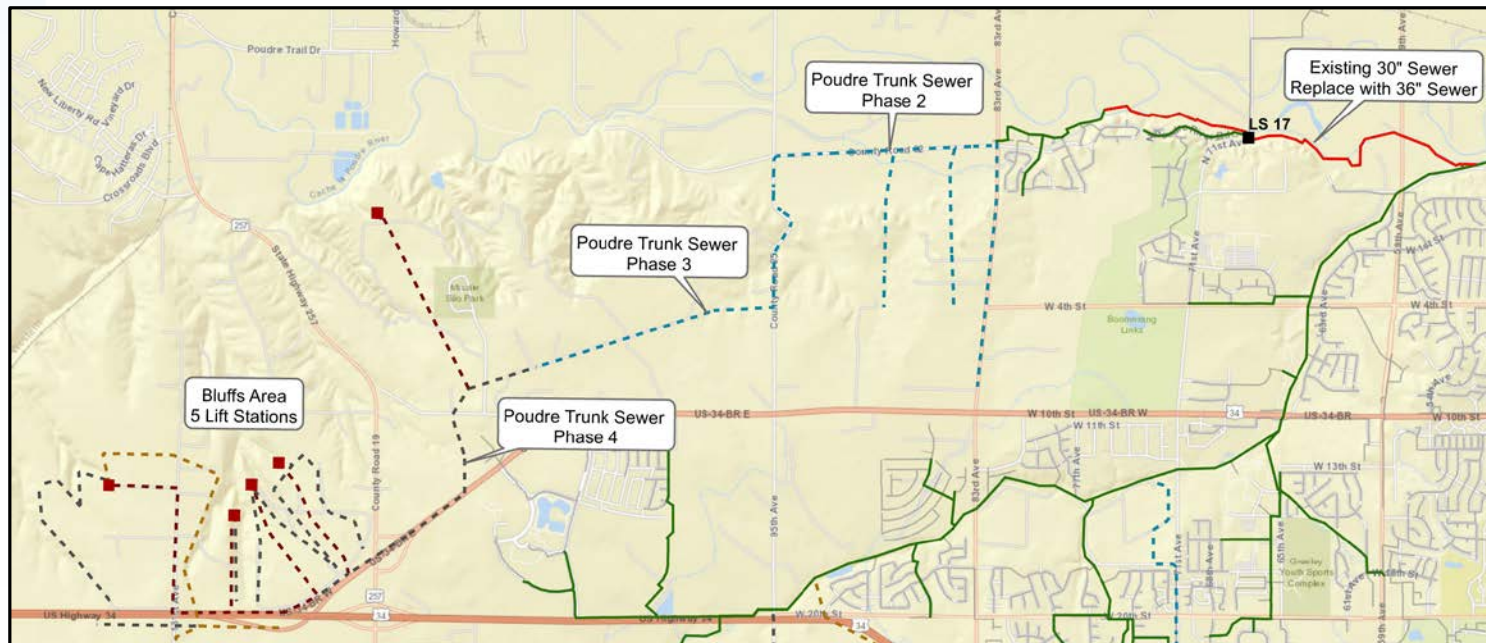


Windsor vs Poudre Options

- Area has been assumed to flow to Windsor at buildout
 - Windsor Master Plan (2015) covers part of the LREGA.
 - Buildout Peak WWF – 4 MGD
- Master Plan (Table 5-7) for Poudre sizing
- Existing IGA – Windsor/Greeley



Windsor Option

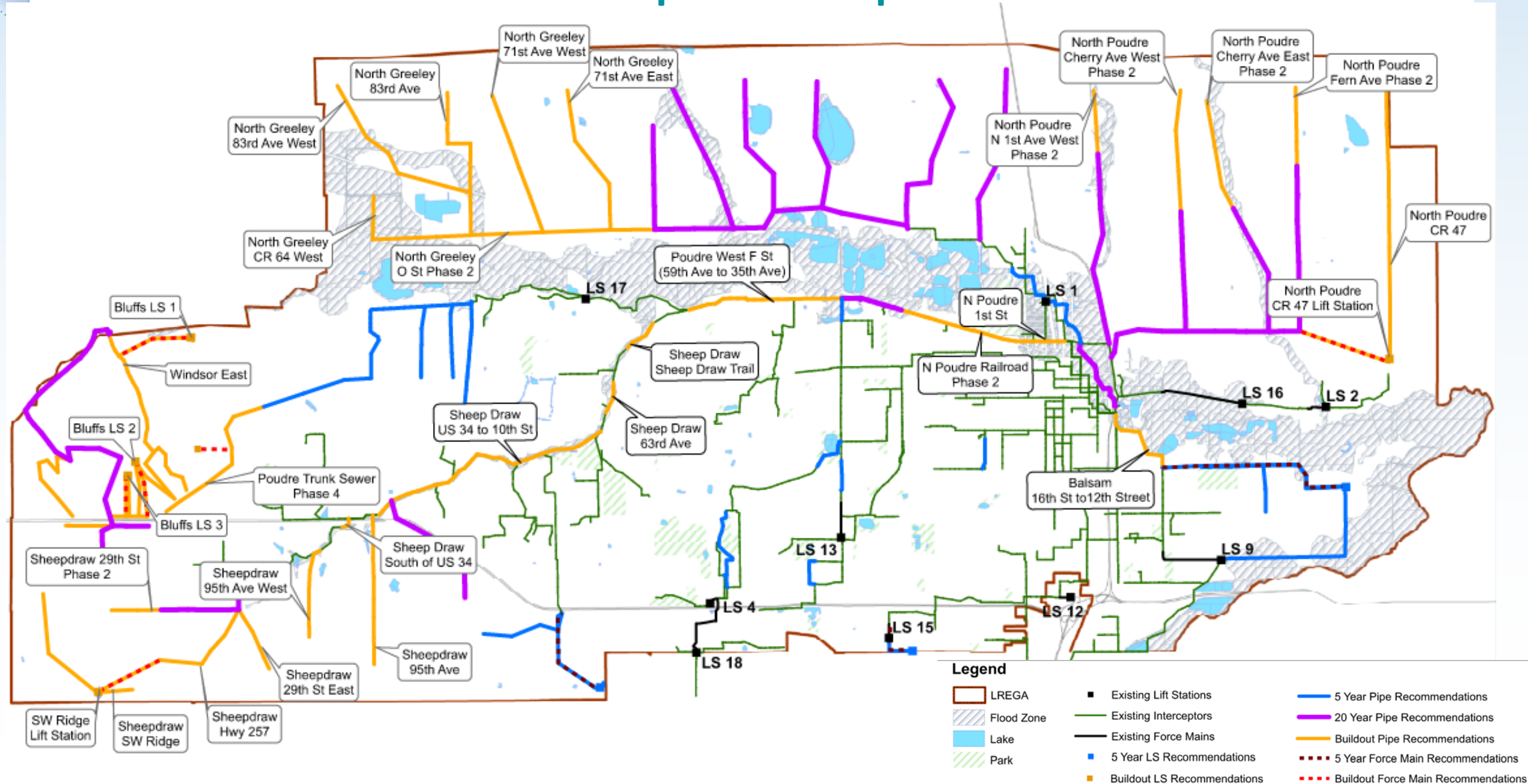


Poudre Option



Capital Improvements Plan

Recommended Capital Improvements



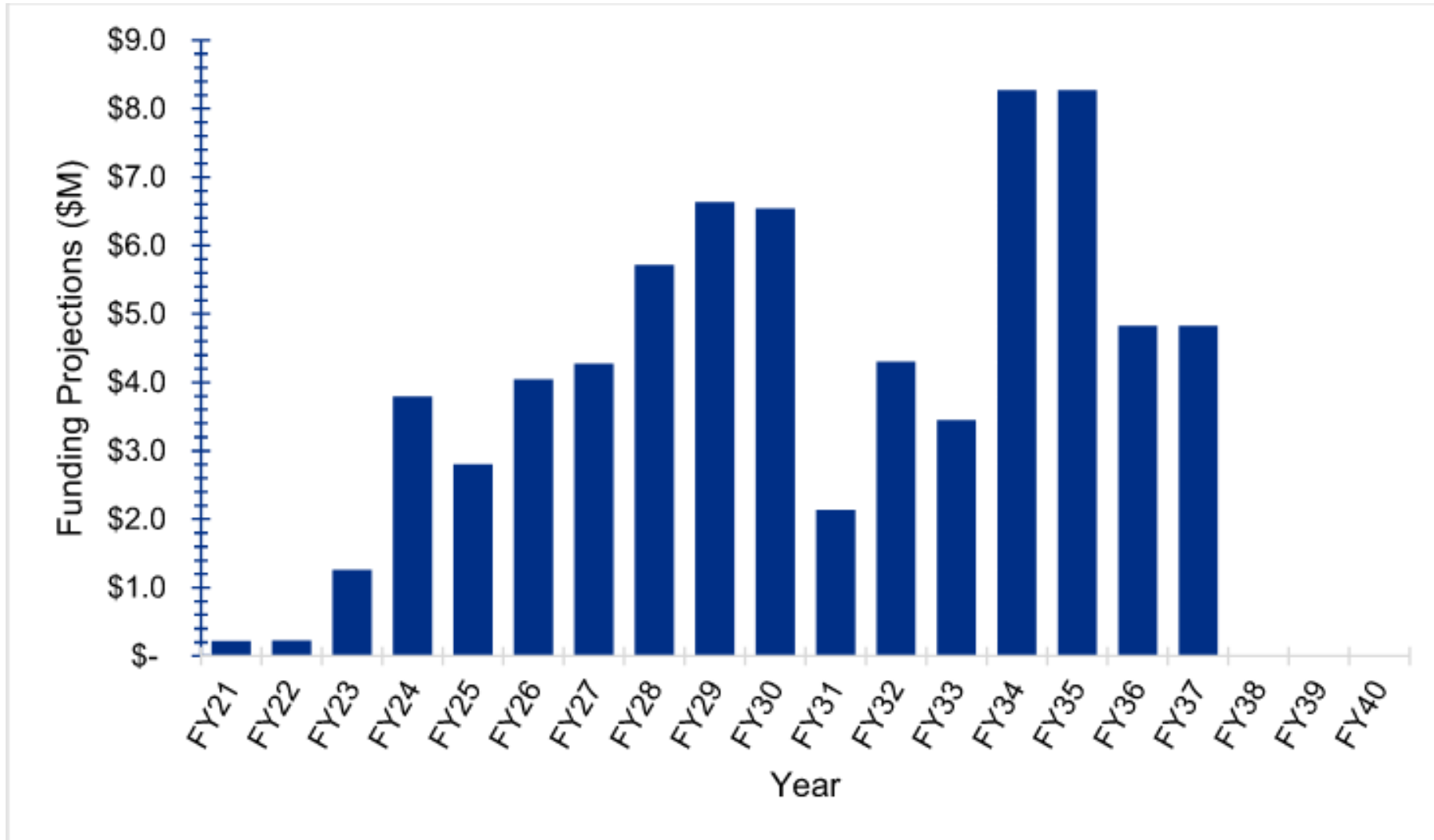
City CIP Summary

Projects	Project Driver	Funding Source	Planning Start Year	Design Start Year	Construction Start Year ¹	OPCC (\$M)	Total Cost (\$M)
5-year Planning Horizon							
Highland Hills 35 th Ave C St. to F St.	Deficiency	City			2021	N/A	N/A
Ashcroft Lift Station	Growth	City			2022	N/A	N/A
Highland Hills 47 th Ave Flow Diversion	Deficiency	City		2022	2023	\$1.39	\$1.81
Highland Hills 35 th Ave 19 th St. to 17 th St.	Deficiency	City		2022	2023	\$0.82	\$1.01
Highland Hills 25 th St Flow Diversion	Deficiency	City	2022	2023	2024	\$0.51	\$0.66
North Greeley Sewer Phase 2A	Growth	City	2022	2023	2024	\$5.5	\$5.8
Highland Hills Bittersweet Park	Deficiency	City	2024	2025	2026	\$0.84	\$1.08
Central 16 th Street	Deficiency	City	2025	2026	2027	\$0.71	\$0.91
Lift Station 9	Growth	City	Moved to 20 year				
20-year Planning Horizon							
Lift Station 9	Growth	City	TBD/2026	TBD/2027	TBD/2028	\$6.4	\$8.3
N. Poudre RR Phase 1	Deficiency	City	2026	2027	2029	\$5.7	\$7.4
North Greeley Sewer Phase 2B	Deficiency	City			2029	\$5.5	\$7.2
North Greeley O St.	Growth	City	2028	2030	2032	\$12.2	\$15.6
North Poudre East C St.	Growth	City	2030	2032	2034	\$17.2	\$21.9

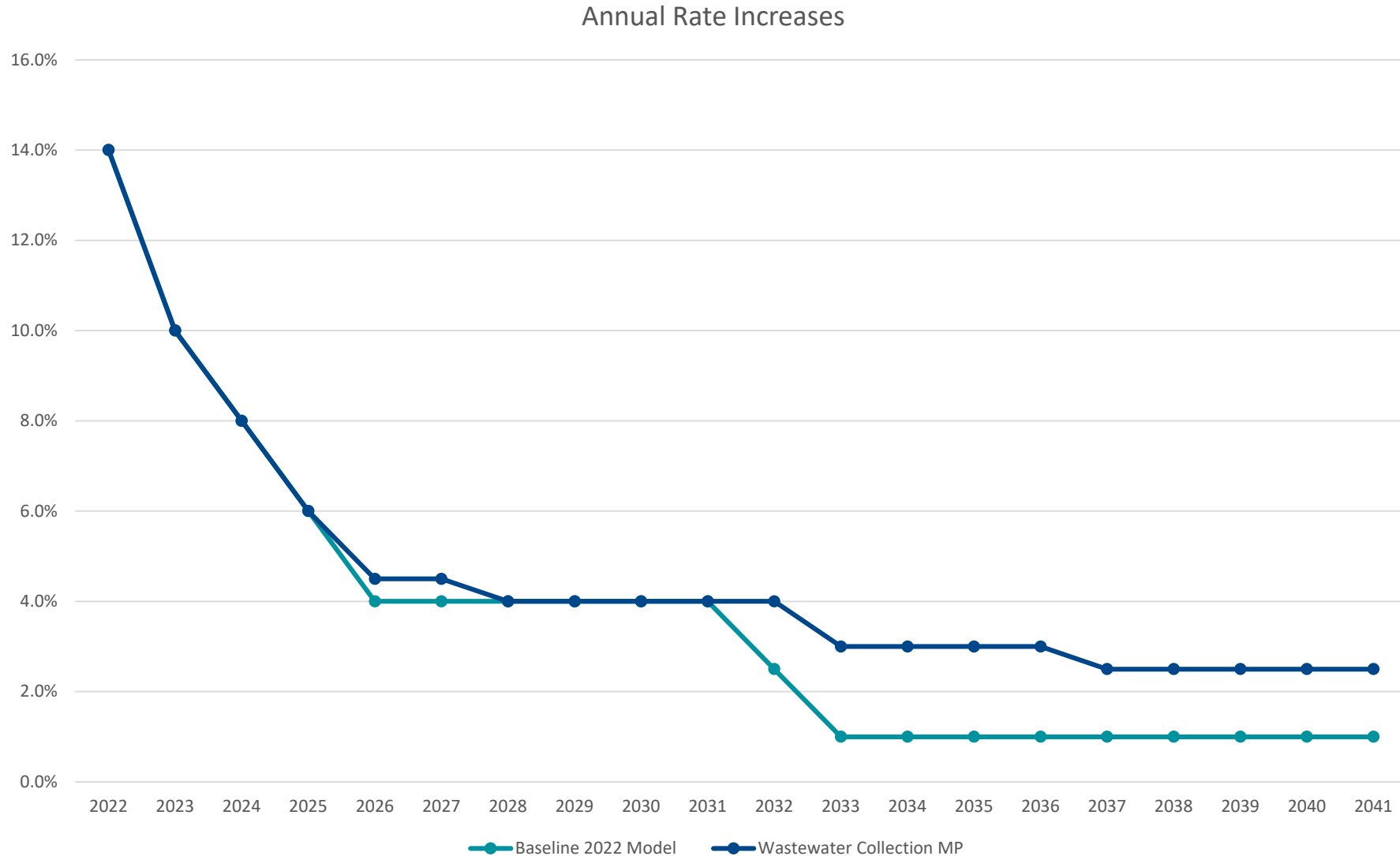


Master Plan Rate Impacts

Annual Sewer Funding Projections (City CIP Projects)



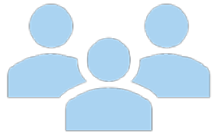
Annual Sewer Rates (City CIP Projects)





Stakeholder Engagement

Stakeholder Engagement Approach



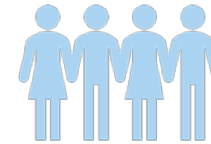
Interactive Workshop 1:

- Build collaborative environment
- Inform ALL stakeholder
- Share information between stakeholders
- Brainstorm additional areas of collaboration



Interactive Workshop 2:

- Stakeholder input on alternatives and challenges
- Discuss alternatives (map)
- Finalize regional solutions



One on Ones

- Collaborate on specific ideas between Greeley and stakeholders

Stakeholders

- Other: Community engagement (covered later)

Stakeholder	Wastewater	Water	Non-Pot
Evans*	✓	✓	✓
Kersey*	✓	✓	
Johnstown	✓	✓	
Eaton*	✓	✓	
Windsor*	✓	✓	✓
Milliken*	✓	✓	
Severance		✓	
Loveland		✓	
Elco		✓	
North Weld		✓	
Denver Water*			✓
Westminster*			✓

*One-on-one meeting held

Next Steps

- Finalize CIP Project Scheduling with Budget
- Final Master Plan Acceptance by City Council
- Approval of Wastewater Utility Plan
 - North Front Range Water Quality Planning Association
- Monitor Flows and Capacity of LS #9 and Balsam Ave Interceptor



Questions?

WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE X NO ENCLOSURE

ITEM NUMBER: 6

TITLE: UPDATE ON CAMERON PEAK WILDFIRE
RECOVERY FUNDING AND ACTIVITIES

RECOMMENDATION: INFORMATIONAL ONLY

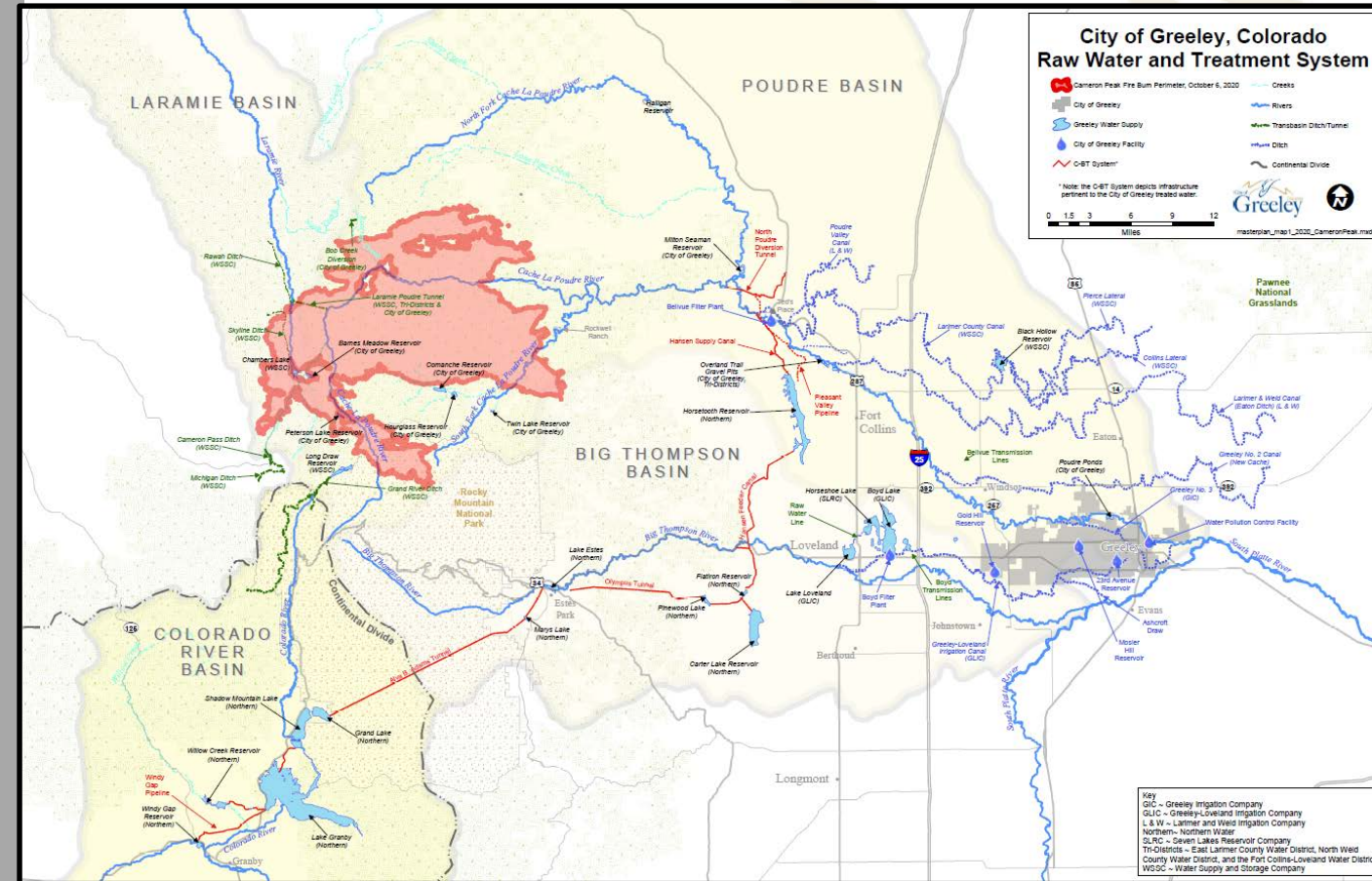
ADDITIONAL INFORMATION: The Cameron Peak fire was the largest wildfire in CO history burning over 200,000 acres. Significant mitigation work is needed to prevent watershed impacts. Staff will provide an update on the recovery efforts and funding sources obtained to date, as well as plans for securing additional funding and future mitigation plans.

Cameron Peak Fire



Cameron Peak Fire

- Largest CO wildfire
- >208,000 acres
- >90% on Forest Service lands
- >50% are medium to high burn severity
- All 4 of Greeley's watersheds affected
- In addition to East Troublesome Fire, >1 million people's water supply is at risk



Cameron Peak Fire

- \$40+ million project costs identified
 - >10,000 acres of mulching highest priority
 - Hillslope stabilization throughout private lands
 - Greeley's reservoirs
- Large funding gap requiring significant lobbying efforts



Funding Sources

- Emergency Watershed Protection Program
 - NRCS reimburses recovery expenses
 - 20-25% cost share
 - Policies limit use on federal lands
- Arapaho-Roosevelt Nation Forest
 - USFS severely underfunded
- Colorado Water Conservation Board
 - Grant funding
 - 100% cost match (broadly defined)
- FEMA (limited application)
- Local dollars



Current Funding

- ~\$7.5 million
 - \$5.4 million in Emergency Watershed Protection
 - \$1.5 million in CWCB funds
 - \$500,000 from NOCO Community Foundation
- Greeley, Fort Collins, and Tri-Districts committing \$2 million
 - Local dollars used to leverage federal and state funds
 - Contributions based on percent river diversions



Funding Gaps & Lobbying

- \$30+ million funding gap
- \$100+ million shortfall with East Troublesome Fire
- Intensely lobbying for additional Federal and State funding
 - Hired federal lobbyist
 - Engaged federal and state delegates
 - Engagement with USDA at D.C. level
 - Coordination with Northern and Fort Collins
 - May 2020 Tour



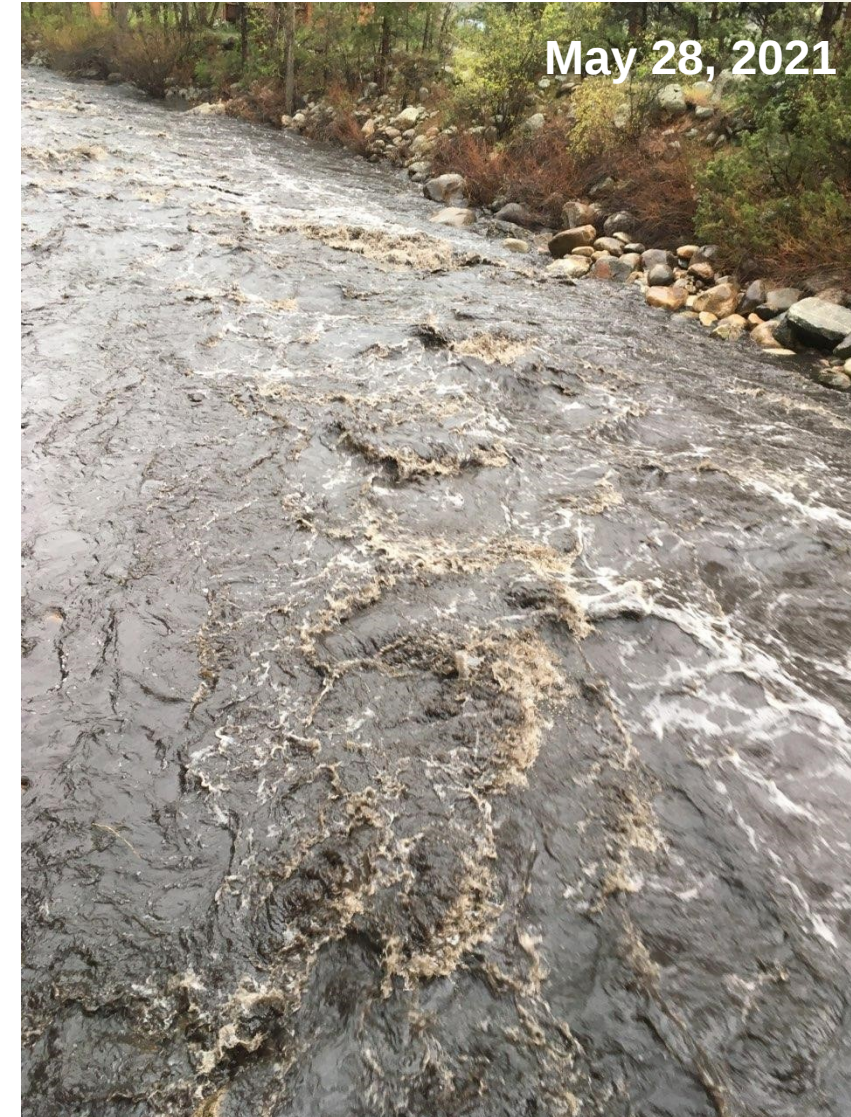
Funding Successes

- Senate Bill 240
 - \$30 million for statewide wildfire recovery
 - Greeley key to gaining support & amending bill
 - Awaiting Governor's signature
- USDA directed \$5 million of EWP funding on Forest Service land
 - Funds have not yet arrived, but staff is prepared to spend
- Federal delegation fully engaged and actively supporting supplemental appropriations and “Congressionally Directed Spending”



Project Status

- Beginning to see water quality impacts – three day shutdown following small rain event over fire area
- Approved and funded projects
 - Mitigation for Comanche, Hourglass, Petersen, and Barnes Reservoirs
 - Private land mitigation
- Hired aerial mulching contractor
- Expected to begin mid-July



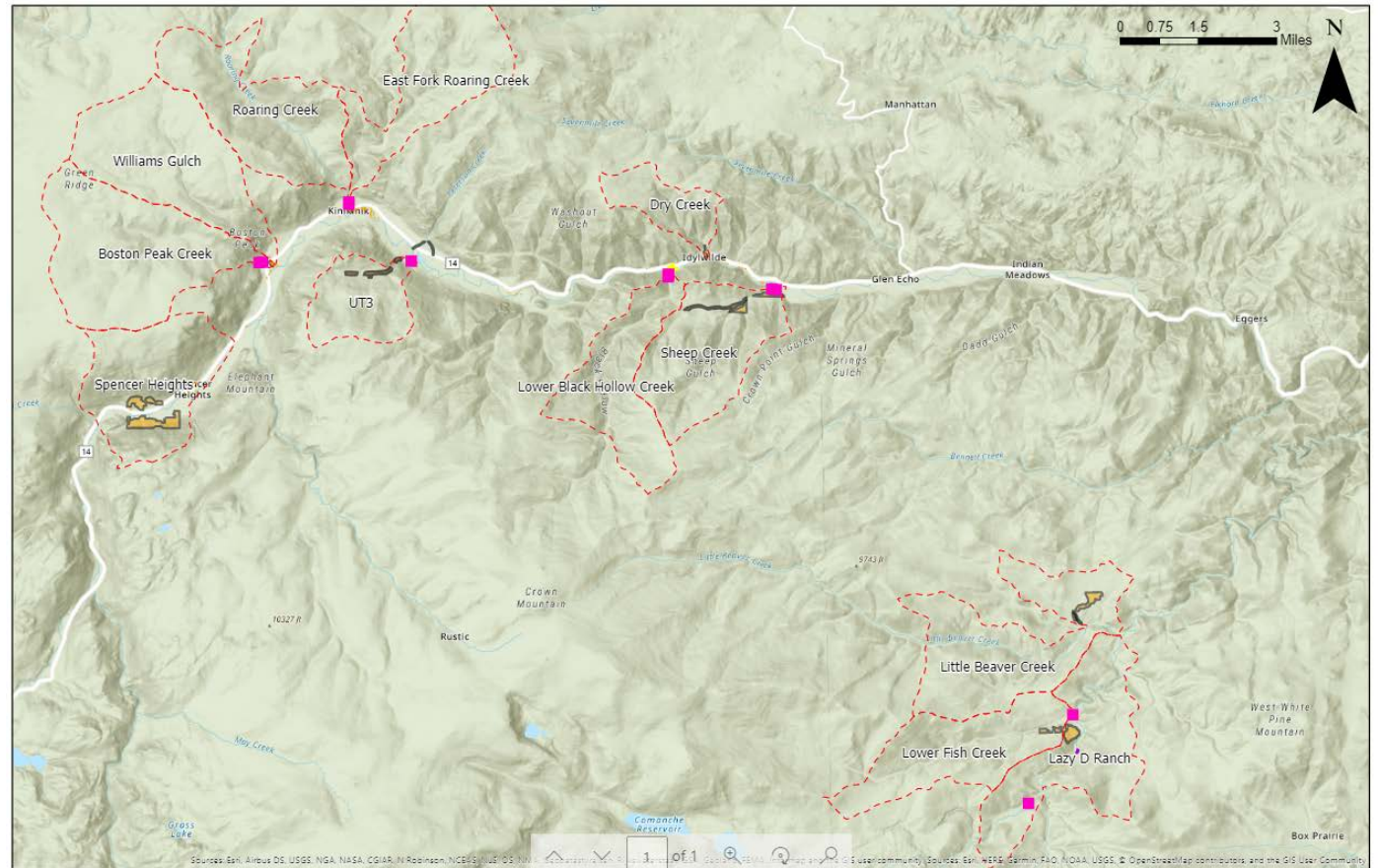
Reservoir Mitigation

- 450 acres of mulching on USFS land around Petersen and Barnes
- Erosion control around lake perimeters
- EWP funded and fully permitted



Private Land Mitigation

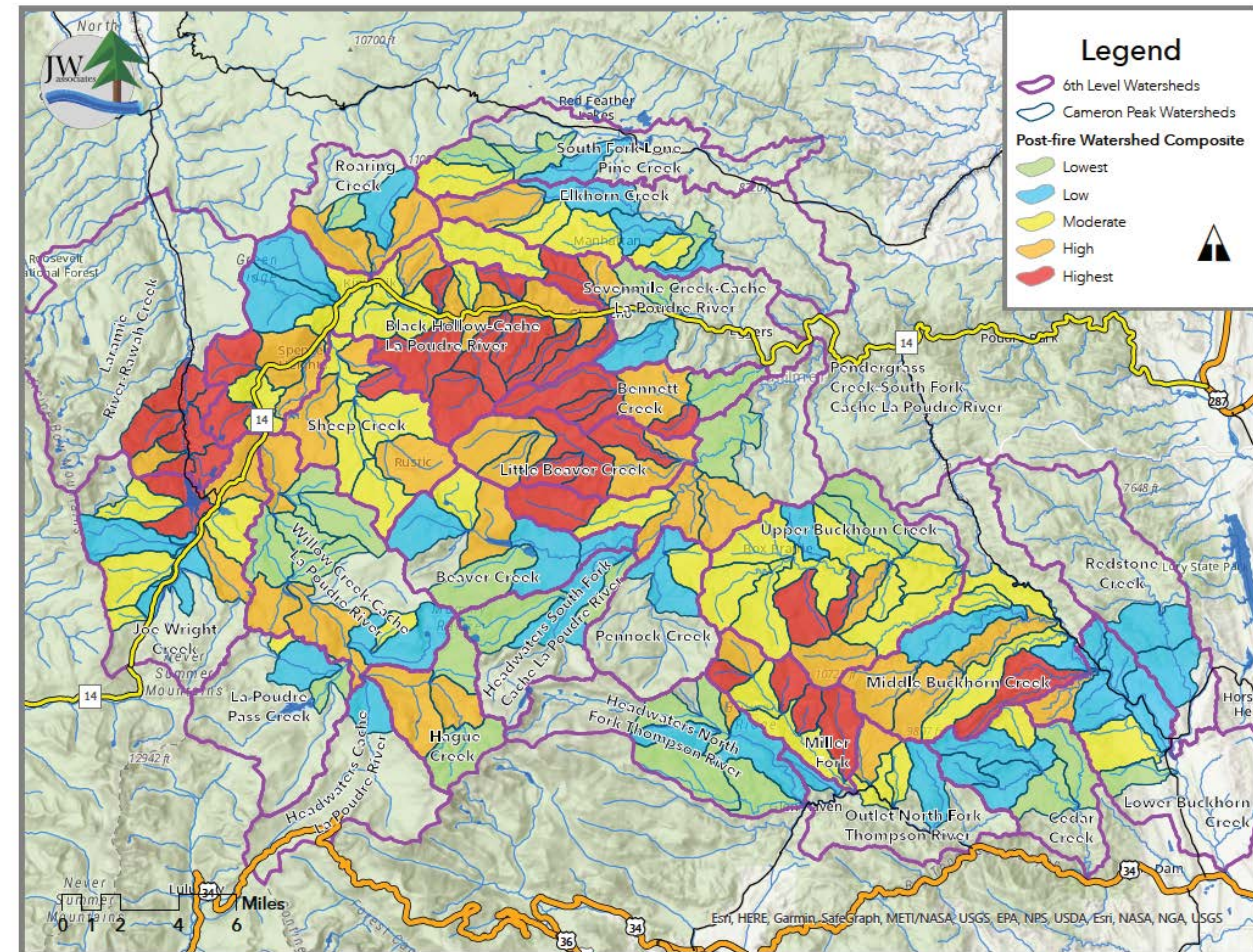
- Mulching and hillslope stabilization on six, high-priority private properties
- EWP funded and fully permitted



Future Mitigation

May 28,

- Planning and permitting underway for large-scale aerial mulching on USFS land
- Focusing on highest priority areas, ~3,000 acres
- Scope and timeline depends on funding



Questions?



WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE _____

NO ENCLOSURE X

ITEM NUMBER: 7

TITLE: EXECUTIVE SESSION

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

- Water Court Matters

WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE X NO ENCLOSURE

ITEM NUMBER: 8

TITLE: LEGAL REPORT

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

Legal Report
Greeley Water and Sewer Board Meeting
June 16, 2021

Statements of Opposition: Based on our review of the April, 2021 Water Court Resume, staff and water counsel do not recommend that the Water and Sewer Board file statements of opposition to any water court applications that would be due in the month of June, 2021.

WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE _____ NO ENCLOSURE X

ITEM NUMBER: 9

TITLE: DIRECTOR'S REPORT

RECOMMENDATION: INFORMATIONAL ONLY

ADDITIONAL INFORMATION:

WATER & SEWER BOARD AGENDA JUNE 16, 2021

ENCLOSURE _____

NO ENCLOSURE X

ITEM NUMBER: 10

TITLE: SUCH OTHER BUSINESS AS NECESSARY

RECOMMENDATION:

ADDITIONAL INFORMATION: