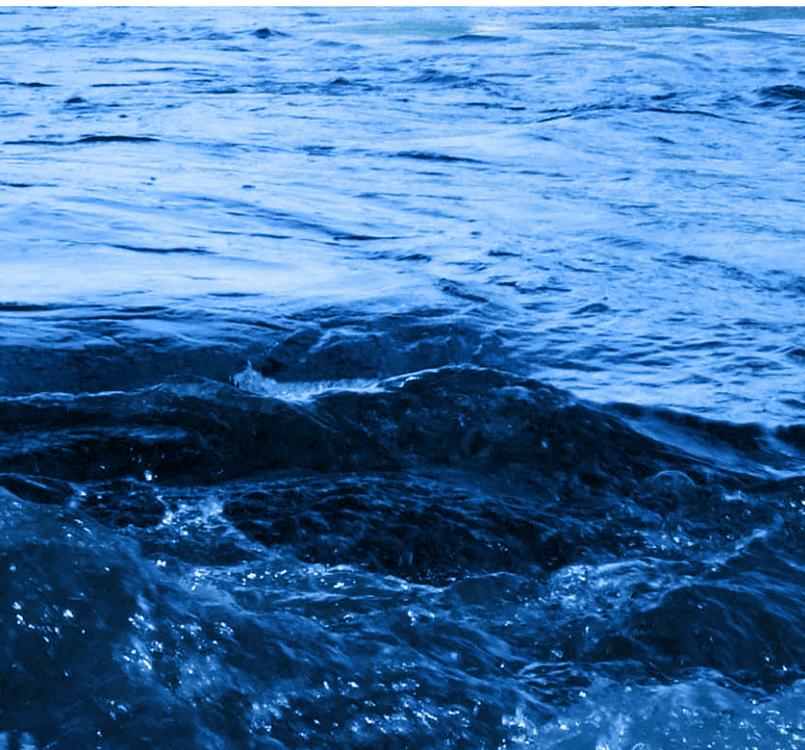




Loveland Water and Power

# Strategic Plan Update

## 2023-2024



# TABLE OF CONTENTS:

LETTER FROM DIRECTOR	3
LEADERSHIP TEAM	4
VISION, MISSION, VALUES	5
FOUNDATIONAL PILLARS	6
SAFETY	7
FACT SHEET PAGES	8
LOVELAND UTILITIES COMMISSION	11
LOVELAND COMMUNICATIONS ADVISORY BOARD	12
LUC AND LCAB 2023 WORK PLANS	13
WATER RESOURCE PLANNING	14
WATER CAPITAL IMPROVEMENT PLAN	16
WASTEWATER CAPITAL IMPROVEMENT PLAN	19
POWER DIVISION PLANNING	20
POWER DIVISION: LOOKING AHEAD	22
UTILITY APPLICATION SERVICES	23
CUSTOMER RELATIONS	24
CUSTOMER RELATIONS: LOOKING AHEAD	25
UTILITY ACCOUNTING	26
FINANCIAL REPORT & HEALTH	27
PULSE	30
DIRECTOR'S OFFICE	32
DEIB	34
APPENDIX	35
MEMBERSHIPS	36



# LETTER FROM THE DIRECTOR

**Welcome** to the 2023 City of Loveland Utilities Strategic Plan update which provides the reader with an update on the strategic activities of each of the four utilities.

It is a huge honor to serve as the Utilities Director since November 2021. Loveland's previous leadership and directors have left us with a strong foundation and focus on safety, reliability, reasonable rates, and planning for today and future generations. We recognize our staff who make the systems work and we have one of the most dedicated groups in the business right here in Loveland. Each of our four utilities continue to meet or exceed our operational goals for 2023 and we look forward to the upcoming objectives outlined in this report.

Our updated 2023 Strategic Plan focuses on our employees and community while continuing to upgrade or replace aging infrastructure. Over the last year, our entire organization has embarked on Diversity, Equity and Inclusion and Belonging (DEIB) fundamentals, and I am proud of the work accomplished to date. Advancing our program will require an open dialogue that embraces our current and future employees. This is just the beginning, as we have learned DEIB is a continuous process that revolves around our people and culture.

Several key projects will begin over the next few years in the water division. They include planning for Loveland's Great Western Reservoir, implementing advanced metering infrastructure (AMI) for water, relining of a key 36" waterline, remodeling and expanding our service center, Hearts in Place (HIP) Street water and wastewater replacement, and adding aeration to our Green Ridge Glade Reservoir.

Our power division has new leadership in 2023 and have embarked upon a system wide master plan that will be completed in 2024. Organizational adjustments have been implemented to meet the requirements AMI implementation, a project that will span two years and is a prerequisite for each of the four owner cities of Platte River Power Authority. Updating infrastructure, expanding our service for growth, and supporting our best in class employees while focusing on safety are just a few of the key objectives for our power division.

In wastewater, we have spent the last year evaluating and testing our advanced wastewater treatment process. From that testing, we have learned a great deal, and improved our process control which will be added to our master planning documents. We also completed the 10-year wastewater master plan. Over the next few years, we will be adding significant treatment modifications primarily for regulation requirements, as well as expanding our service areas for growth. Our staff have strived to keep ongoing cost of service reasonable, while meeting more stringent treatment requirements. From a master planning perspective, we will be investing in significant capital improvements for an often-forgotten part of our infrastructure. In the end, we treat our wastewater and return it to meet all local, state, and federal standards.

Our customer relations staff focused on continued outreach in our community for every program we offer. They also completed the 2023 Customer Survey, and our strategic plan will revolve around areas that we can improve upon.

Pulse, our very own fiber broadband utility, continues to provide every home and business in our community with fiber communications. The large-scale construction project began in 2019, and we are on track to finish by the end of 2023! Pulse is proud to provide service to neighborhoods as construction is completed, instead of waiting until the entire network is built. The public expects us to plan, operate, and maintain all of these assets that are so critical to our residents. To that end, our commitment remains – we are always there to meet our goal of providing reliable, cost effective, and environmentally resilient services for water, power, wastewater, and fiber communications each and every day.

Please keep updated and visit our website often at [lovelandwaterandpower.org](http://lovelandwaterandpower.org).

Sincerely,

Kevin R. Gertig  
Director of Utilities

# LEADERSHIP TEAM



**Our leadership team is the driving force behind our organization's success**, embodying a diverse range of expertise, innovation, and dedication. Through collaborative leadership, they inspire and empower our talented professionals to achieve new heights and exceed expectations.

Left to right:

**Kevin Gertig**, Director of Utilities

**Jim Lees**, Utility Accounting Manager

**Cree Goodwin**, Utility Application Services Manager

**Tracey Hewson**, Customer Relations Manager

**Tanner Randall**, Water Utilities Manager

**Briana Reed-Harmel**, Municipal Fiber Manager

**Adam Bromley**, Electric Utility Division Manager

**Melanie Reeves**, Executive Assistant



## OUR VISION:

To provide best in class utility services for our community.

## OUR MISSION:

To serve the community's utility needs for today and tomorrow by:

- Providing quality and reliable service
- Implementing innovative technology and policy for a sustainable future
- Managing fiscally responsible and resilient utilities

## OUR VALUES:

Caring for the community and each other.

# FOUNDATIONAL PILLARS



## Our Foundational Pillars

are provided by the City of Loveland's strategic plan and provide us with 8 strategic focus areas that were developed by City Council.

These pillars provide the basis for achieving a high quality of life for our citizens and our community, and they guide the Water and Power department as we realize our stated Vision, Mission, and Values.



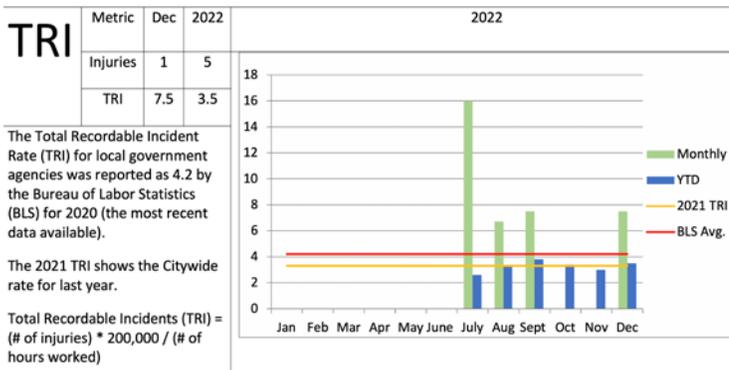
**For 2022, Water & Power had a total of 5 recordable injuries and 2 lost time incidents for the entire year.** The Bureau of Labor Statistics records the Total Recordable Incident rate (TRI) and Lost Time Incident rate (LTI) averages for all industries nationwide.

For local government agencies, the TRI for was 4.2 for 2022. City of Loveland Water and Power ended 2022 with a TRI of 3.5, meaning that we had fewer recordable injuries compared to the national average. As for the LTI rate, the average last year for local government agencies was 1.7. Comparatively, Water and Power ended the year with an LTI of 1.4, meaning that this metric was also below the national average.

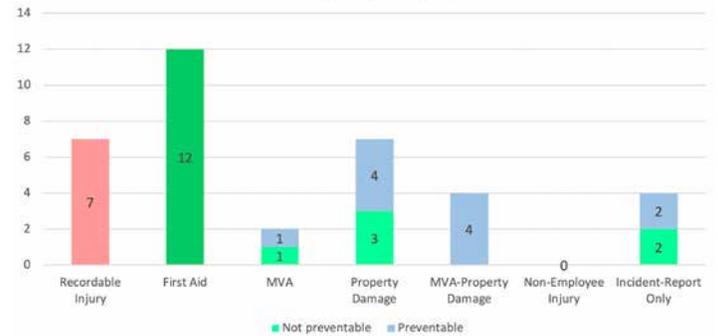
Considering that all divisions in the Water and Power Department involve sophisticated operations with field personnel that perform high risk work, these metrics are a great achievement. It will only continue to through our increased collaboration with Risk Management. Additionally, revision of the safety manuals to reflect operations, development of an electrical safety program, implementing corrective action items after incident investigations, being compliant with critical safety trainings, and evaluating risks/hazards through regular assessments are just few of the things that the divisions are doing proactively to establish good safety culture. Reporting incidents no matter the severity (e.g., near misses, unsafe acts/conditions, incidents requiring first aid), will be leading and lagging indicators of our commitment to safety.

Overall, Water and Power is committed to safety, and will continue to prioritize safety as a core value.

2022 City of Loveland Key Performance Indicators – Water & Power



2022 - YTD - Incident Type by Category - WATER & POWER



# 2022 FACT SHEETS

## 2022 FACT SHEET | POWER AND COMMUNICATIONS

1925 Power Utility Established | 56 Electric Employees

### CUSTOMER DATA

**40,083** Total Electric Customers

**13.56 ¢/kWh** | Avg. Residential Electric Rate\*  
**662 kWh** | Avg. Monthly Residential Electric Use  
**\$91.92** | Avg. Monthly Residential Electric Bill\*  
**9.3 kWh** | Avg. Daily Residential Electric Use / Person  
**21.45 kWh** | Avg. Daily Residential Electric Use / Household

**30** | Key Accounts  
**7,826.6 MWh** | Annual Energy Program Savings  
**7** | Residential Energy Efficiency Programs  
**1** | Commercial Energy Efficiency Program  
**1** | Renewable Energy Program

\*Summer Rate

### FINANCIAL DATA

**\$78,212,769**  
ELECTRIC REVENUE

**\$49,969,493**  
PURCHASED POWER EXPENSES

**\$15,356,624**  
OTHER POWER EXPENSES

**RESIDENTIAL**

	Inside <b>34,288</b>	Outside <b>629</b>
--	-------------------------	-----------------------

**COMMERCIAL**

	Inside <b>4,527</b>	Outside <b>282</b>
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**INDUSTRIAL**

	Inside <b>350</b>	Outside <b>7</b>
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## POWER SYSTEM DATA

**ANNUAL PURCHASE POWER** | 691,411 MWh TOTAL  
 163,288 kW | Summer Peak (Jul - Sep)  
 111,946 kW | Winter Peak (Dec - Mar)

**12.47 kV** Distribution Voltage (City Limits, Canyon)

**DISTRIBUTION LINES** | 688 MILES TOTAL  
 589 Underground Circuit Miles | 99 Overhead Miles (28 miles in Canyon)

**11** City-Owned Public EV Charging Stations

**74 SQ. MILES**  
Current Service Area

**7** Substations

**16** Substation Transformers

**7,063** Streetlights  
668 Non-LED | 6,395 LED

**RENEWABLE ENERGY** **4,045 MWh** Renewable Energy Purchase Program Allocations

**FOOTHILLS SOLAR FACILITY** | 3,500 kW DC GENERATING CAPACITY  
 4,248,860 kWh in 2022 (offline 2 months) | 34,816,190 kWh cumulative since 2017

**348** Solar Interconnection Agreements

**DISTRIBUTED GENERATION** | 2,606 kW DC  
 Commercial - 536 kW DC  
 Residential - 2,070 kW DC

**MULTIGIGABIT FIBER-OPTIC, COMMUNITY-OWNED  
INTERNET, WIFI, TV AND VOICE PROVIDER**



Established **2018** | **38.92** Employees

**CONSTRUCTION KICK-OFF** November 2019 | **BUILD OUT TIMELINE** Estimated Completion End of 2023

**28 SQ. MILES** Current Service Area | **5** Huts | **99.99%** Uptime | **15+** Community Partnerships

**ESTIMATED TOTAL MILES OF FIBER NEEDED** | 1,189.51  
738.54 Miles of Fiber Completed

**ESTIMATED TOTAL BORE LENGTH** | 2,505,355 FT  
87% Completed

**32%** Market Take Rate Goal After Build Out | **30%** Take Rate as of December 2022

**INTERNET SERVICE PLANS**  
Starter 30 Mbps | Connect 120 Mbps  
My Gig 1 Gig | Pro 10 Gigs

**PULSETV PLANS**  
Essentials (35 Channels), Favorites  
(95 Channels), Premier (170 Channels)

**MAIN CONTACT**

(970) 541-4990 | LovelandPulse.com  
2695 W. Eisenhower Boulevard  
Suite 200, Loveland, CO 80537

(970) 744-4226 **24/7 TECHNICAL SUPPORT**  
LovelandPulse.com/PulseInProgress **CONSTRUCTION UPDATES**  
LovelandPulse.com/Map **SERVICE AREA**

**2022 FACT SHEET**

**WATER AND  
WASTEWATER**



**1887** Water Utility Established | **1902** Wastewater Utility Established | **83** Water and WW Employees

**RESIDENTIAL**

**Inside** 25,890 | **Outside** 778

**COMMERCIAL**

**Inside** 1,216 | **Outside** 86

**IRRIGATION**

**Inside** 434 | **Outside** 5

**CUSTOMER DATA**

**28,409** Total Water Customers  
**\$6.18/1,000 gal** | Avg. Residential Water Rate  
**8,107 gal** | Avg. Monthly Residential Water Use  
**\$50.10** | Avg. Monthly Residential Water Bill  
**87 gal** | Avg. Daily Residential Water Use Per Person  
**265 gal** | Avg. Daily Residential Water Use Per Household  
**1,938,054 gal** | Water Savings  
**7** | Water Conservation Programs

**FINANCIAL DATA**

**\$22,950,030**  
WATER REVENUES  
**\$17,663,194**  
WATER EXPENSES  
**\$17,185,282**  
WASTEWATER REVENUES  
**\$12,379,643**  
WASTEWATER EXPENSES

**RESIDENTIAL**

**Inside** 34,048 | **Outside** 965

**COMMERCIAL**

**Inside** 1,175 | **Outside** 41

**37,648** Total Wastewater Customers  
**1,419** | Flat Rate Customers  
**314** | High Strength Surcharge Customers  
**\$10/1,000 gal** | Avg. Residential Wastewater Rate  
**3,083 gal** | Avg. Monthly Residential Wastewater Use  
**\$30.83** | Avg. Monthly Residential Wastewater Bill



## WATER SYSTEM DATA

 **34 SQ. MILES**  
Current Service Area

 **38 MG**  
Water Treatment Plant (WTP) Daily Capacity

 **483 MILES**  
Combined Length of Water Lines

 **20.24 MG**  
WTP Daily Average Summer (May - Sep)

 **9** Pump Stations  
(8 Public, 1 Private)

 **6.97 MG**  
WTP Daily Average Winter (Dec - Feb)

 **3,362** Hydrants

 **26.98 MG**  
WTP Peak Day

 **25.14 MG**  
Treated Water Storage

*MG = Million Gallons*

### LEADERSHIP

**KEVIN GERTIG** | Director of Water and Power  
**TANNER RANDALL** | Water Utilities Manager  
**BRIEANA REED-HARMEL** | Municipal Fiber Manager  
**TRACEY HEWSON** | Customer Relations Manager

**JIM LEES** | Utility Accounting Manager  
**ADAM BROMLEY** | Electric Utility Manager  
**CREE GOODWIN** | Utility Application Services Manager

## WASTEWATER SYSTEM DATA

 **33 SQ. MILES**  
Current Service Area

 **10 MG**  
WRF Daily Hydraulic Capacity

 **378 MILES**  
Combined Length of Sewer Lines

 **20,236 LBS**  
WRF Daily Organic Capacity

 **18** Lift Stations  
(14 Public, 4 Private)

 **9.5/9.9 MG**  
WRF Peak Day/Peak Hourly

 **9,516** Manholes

 **6.95 MG**  
WRF Daily Average Wet Season (Apr - Sep)

 **2,075 MG**  
Water Reclamation Facility (WRF) Total Wastewater Treated

 **5.5 MG**  
WRF Daily Average Dry Season (Jan - Mar & Oct - Dec)

*MG = Million Gallons*

**MAIN PHONE**  
(970) 962-3000  
200 N. Wilson Avenue, Loveland, CO 80537  
lovelandwaterandpower.org

**WATER & SEWER EMERGENCIES**  
(970) 962-3720 | (970) 962-3456 (After Hours)  
(970) 663-1043 (24 Hours) **POWER EMERGENCIES**  
(970) 744-4226 **PULSE 24/7 TECHNICAL SUPPORT**

# LOVELAND UTILITIES COMMISSION (LUC)

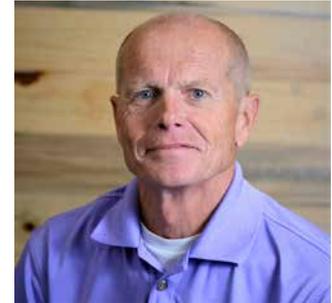
The Loveland Utilities Commission (LUC) was created by City Council on March 16, 1999, and serves as an advisory body to the city council on all matters pertaining to the water, wastewater, and electric utility operations and services provided by the city. The Commission meets on the third Wednesday of each month.



**Gary Hausman, Chair**



**Dan Herlihey, Vice Chair**



**Don Cook**



**Bill Szmyd**



**Eugene Packer**



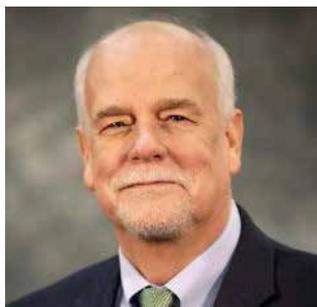
**John Butler**



**Randy Lee Williams**



**Matt Elkins**



**Councilor Jon Mallo**



**Councilor Steve Olson**

# LOVELAND COMMUNICATIONS ADVISORY BOARD (LCAB)

The Loveland Communications Advisory Board (LCAB) was created by City Council on February 20, 2018, and serves as an advisory body to the city council on broadband and communication matters, including the City's provision of advanced communications of high-speed broadband internet services to its citizens. The board meets on the second Wednesday of each month.



**Shane Mares, Chair**



**Paul Langfield, Vice Chair**



**Adam Auriemmo**



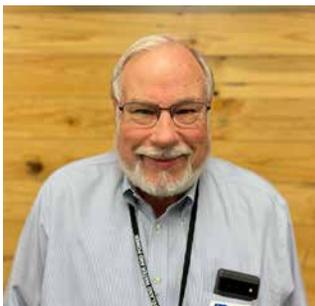
**Richard Bilancia**



**David Hetrick**



**JD Walker**



**Richard Toftness**



**Councilor John Fogle**



**Councilor Don Overcash**

# LUC AND LCAB 2023 WORK PLANS

City Council encourages all Boards and Commissions to develop annually a work plan for the subsequent year that aligns with the City of Loveland Strategic Plan.

## Loveland Utilities Commission Work Plan

Work Plan Priorities		Strategic Plan Alignment:
Priority A	<ul style="list-style-type: none"> <li>• <b>Increase Public Outreach and Public Education:</b> <ul style="list-style-type: none"> <li>➢ Advanced Metering Infrastructure (AMI) program and rollout</li> <li>➢ Utility costs and operation</li> <li>➢ Transformer availability and global supply chain disruptions as they relate to utility operations</li> <li>➢ Educational presentations related to                             <ul style="list-style-type: none"> <li>○ Platte River Power Authority (PRPA)                                     <ul style="list-style-type: none"> <li>▪ Future power supply post-Rawhide</li> <li>▪ DER and Virtual Power Plants</li> </ul> </li> <li>○ Northern Water</li> <li>○ Emergency preparedness; water supply interconnects, wildfire mitigation and preparedness</li> </ul> </li> </ul> </li> </ul>	<b>Outreach, Collaboration and Engagement</b>
Priority B	<ul style="list-style-type: none"> <li>• <b>Promote Long-term Water Conservation Planning:</b> <ul style="list-style-type: none"> <li>➢ Understand City priorities for future water supply planning (including need for additional downstream and upstream storage)</li> <li>➢ Review of water conservation study</li> </ul> </li> </ul>	<b>Sustainability</b>
Priority C	<ul style="list-style-type: none"> <li>• <b>Promote Employee Retention</b> <ul style="list-style-type: none"> <li>➢ Understand City needs and challenges</li> <li>➢ Review update on City Compensation Study</li> </ul> </li> </ul>	<b>Innovation and Organizational Excellence</b>
Priority D	<ul style="list-style-type: none"> <li>• <b>Oversight of procurement authority and water rights acceptance</b> <ul style="list-style-type: none"> <li>➢ Review and approve water and power contracts greater than \$500,000</li> <li>➢ Review and accept ditch shares into the water bank, as appropriate</li> </ul> </li> </ul>	<b>Fiscal Stability and Strength</b>
Priority E	<ul style="list-style-type: none"> <li>• <b>Hold Public Hearing on Public Utilities Regulatory Policy Act (PURPA)</b> <ul style="list-style-type: none"> <li>➢ At June 2023 regular meeting, hold public hearing on the two new PURPA standards: demand response, and electric vehicles.</li> <li>➢ Make recommendations for City Council consideration and action.</li> </ul> </li> </ul>	<b>Sustainability</b>

OUTREACH, COLLABORATION & ENGAGEMENT

## Loveland Communications Advisory Board Work Plan

Objective	Program/Project	Activity	Responsible	Target Date
Review Small Cell Wireless Development Code	Small Cell & 5G	Council Directed	Staff/LCAB	December 2023
Review small cell wireless standards	Small Cell & 5G	Council Directed	Staff/LCAB	December 2023
Annual review of Municipal Fiber budget	Fiscal	Budget review	Staff/LCAB	May-August 2023

# WATER RESOURCE PLANNING

**2022 brought a remarkable number of challenges to the Water Division.** Staff was challenged in continuing to analyze the City's vast water resources portfolio, ensure the ability to treat the requisite amount of water and wastewater while meeting all required regulations, and respond to the changing nature of development, while coordinating large capital projects across the system.

The City of Loveland continued its participation in the new Chimney Hollow Reservoir construction project. The Chimney Hollow Reservoir is a joint project between Northern Water and other participating Northern Colorado water providers to firm up the City's water yield. The project will continue until 2025, but the construction progress has long been planned and shows the fruit of years of planning and budgeting which will benefit Loveland residents for decades to come. Additionally, the Lawn Irrigation Return Flows (LIRFs) water court case was completed, bringing more firm yield to the City.

The City of Loveland's current and planned improvements meet the 30,000-acre foot firm yield target as recommended in the 2020 raw water master plan. Loveland is in a good position with a diverse and robust water supply portfolio. Loveland revisits our demand analysis every 10 years, or as needed, with the last Raw Water Supply Update completed in 2020. Loveland has a wide host of additional and emerging water supply projects that would support water needs beyond the 30,000-acre foot target.

Although, Loveland has an excellent water rights portfolio, water supply vulnerabilities still exist, such as what to do when pumps go down, forest fires occur, floods happen, or algae blooms. The Utility is looking for ways to become more resilient and prepared for such scenarios and we will be exploring some of these vulnerabilities in the coming years.



*Loveland's Great Western Reservoir is an existing gravel pit that the city will convert to downstream water storage over the next decade. This will provide for a desired and likely yield of approximately 1300 – 1600 acre feet of storage and will position the city to better maximize our return flow obligations in the future. Costs are estimated at \$21 million (2022 dollars), and this will be completed in the 2026 – 2027 time frame.*



The City of Loveland is the third largest participant in the **Chimney Hollow Reservoir Project** and has exactly one-ninth of the storage capacity with 10,000 acre-feet. Once completed, this reservoir will be a critical element in Loveland's water supply portfolio. **Shown is the asphalt core construction. Photo credit: Northern Water**

# WATER CAPITAL IMPROVEMENT PLAN

## Water Treatment Plant

**Progress continued at the Loveland Water Treatment Plant (WTP)** as the Division looked for more efficient ways to treat and deliver high quality water to its customers. Overall, the plant treated 4.75 billion gallons of water which was made more challenging after the effects of the East Troublesome and High Park Fires which burned portions of the watershed.

The City has two main sources of water, the Big Thompson River and the City-owned Green Ridge Glade Reservoir. During high precipitation events runoff from the burn scars affected water quality and often led to such high turbidity that the river water was left untreatable. Operators, lab staff, and water resources staff worked together to ensure there was flexibility to start and stop treating river water depending upon the ever-changing water quality.

To continue to meet these challenges and late summer taste and odor events in the reservoir, the Division completed a large capital piping and valving project which allows for water to be diverted around the reservoir. This project will allow another “source” from the Charles Hansen Feeder Canal and can bring approximately eight million gallons of water per day into the plant.

Additionally, staff is working on a complete update of the WTP control building which will bring much needed extra space and state of the art monitoring equipment to assist staff in day-to-day operation.



## Development

The Water Division staff was quite busy with a number of large projects that will allow for future development throughout the service territory. The Division worked with a developer in the northwest portion of the City to design and begin construction on a large regional pump station that will allow for water to serve high elevation areas in the newly formed P2 water pressure zone. This project has been planned and discussed for over 15 years.

Division staff spent time over the past couple of years reviewing the design and monitoring construction of a 24" water line that extends south to Highway 402 down South St. Louis Avenue. This water line, finally completed in 2023, is phase one of a three-phase project to construct a southern loop for the city water distribution system.

In addition to these large projects staff has continued to be challenged with how to maintain clearances and look at long term maintenance aspects of ever shrinking lot sizes. As the lot sizes get smaller, due to economic reasons, it gets harder for staff to meet spacing separations and ensure long term access to maintain these utilities.

## Capital Projects

As is customary, the Division completed major construction projects geared towards improving aging infrastructure and meeting the demands of customers. Highlights included the conclusion of construction of the 29th Street 5.5-million-gallon water storage tank that will help meet high demands and fireflows. The Division also rehabilitated numerous water lines throughout the downtown service area to ensure the reliable delivery of water to customers. Additional capital projects included numerous projects to rehabilitate distribution system water lines and valves.





# WASTEWATER CAPITAL IMPROVEMENT PLAN

## Water Reclamation Facility

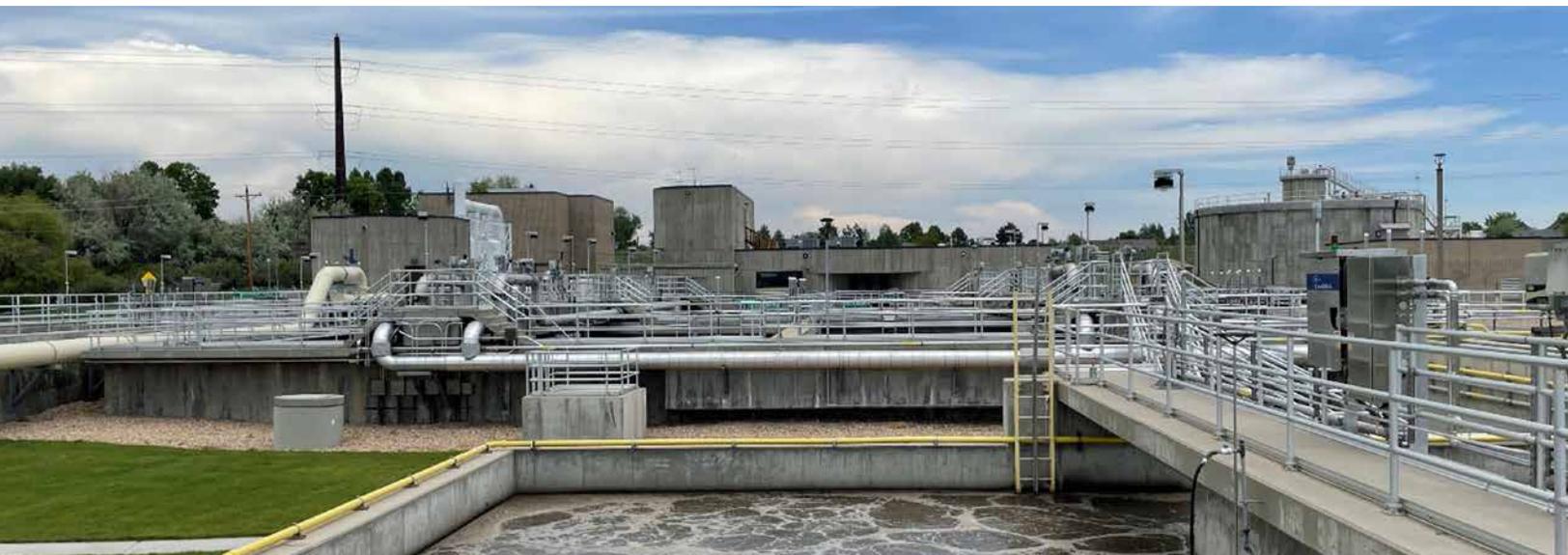
**2022 brought a busy year to the Water Reclamation Facility (WRF)** as it continued to meet all regulatory requirements while additional testing and operational philosophies were implemented. A comprehensive master plan was started to analyze the existing and future capacity and look at the life expectancy of all the various process components. The completion of the master plan work will outline the 20-year plan for the facility and ensure the Division is prepared for upcoming loadings and regulations and is well positioned financially to meet its obligations.

### Development

Design was started in 2023 on the 402 Utility Service Project to provide sewer to the Olson property under agreement with the developer. This project includes design of a sewer interceptor, lift station, two force mains, water line, power, and fiber optics. This project is anticipated to start construction in late 2024 or early 2025.

### Capital Projects

The Division made a substantial effort to rehabilitate numerous wastewater lines through the lining of sewer lines and manholes throughout the city. The significant capital expenditure on this effort will help to extend the life of the City's sewer collection system. Major renovations were completed on three lift stations starting in 2022 and completing in 2023.



*The new state of the art advanced water quality laboratory became fully operational in March 2023. The Laboratory is certified by the State Health Department for microbiology, organic and inorganic parameters, and NPDES / wastewater regulatory analysis. Shown to the left is one of our scientists working on water tests in the new laboratory.*

# POWER DIVISION PLANNING

**The Power Division endured a tumultuous year** in 2022 that included high levels of staff turnover and interim roles paired with unprecedented development demand and devastating supply chain issues for electric system materials, such as distribution transformers.

Goals and objectives in the Power Division for 2023 and beyond are intended to provide more stability and direction while focusing on technology enhancements to better support staff efficiency and customer engagement.

**The Power Division is working to fill personnel vacancies** in a very difficult recruiting environment while also looking to restructure existing workgroups and business processes as we identify gaps. We understand that staff retention will be increasingly important as the job market becomes more competitive, so we are actively engaged in defining our desired workplace culture, which provides a structure for collaboration, innovation, and results. We are also focused on creating pathways for career progression and identifying opportunities to foster growth and development of our future leaders.

One of Power's top priorities is the citywide deployment of **Advanced Metering Infrastructure** (AMI), which will revolutionize existing metering, billing, and revenue operations and business processes. It will also provide customers with data and tools to change behavior or to reduce their energy bill. This AMI technology is one of the main tools we will use as we work toward a 100% renewable energy resource mix by 2030 with Platte River Power Authority (PRPA) and its owner communities.



The other main priority for Power is the creation of a long-range Master Plan.

This plan will include traditional aspects such as forecasting future load growth and associated electric system needs, but it will also include strategic policy-related decisions that might drive how quickly the City wants to underground its existing overhead system or the technology systems necessary to enhance outage restoration and customer notification.

All of the work being done in the next few years will enhance our adaptability and resiliency to better meet the challenges we face as a utility in the 21st century.



# POWER DIVISION: LOOKING AHEAD



- Implementing a Master Plan for the Power Division
- Identify workload gaps and process improvements, hire vacancies, publish Engineering roles/responsibilities
- Plan for and manage “initial” deployment of Advanced Metering Infrastructure (AMI); support testing and go-live for Meter Data Management System (MDMS), Mobile meter exchange processing app
- Enhance outage notification process for internal/external customers (AMI, After-hours, IVR, etc.)
- Collaborative Loveland/Substation and Supervisory Control and Data Acquisition (SCADA) (Survalent to OSI) O&M support plan
- Public Works Memo of Understanding establishing infrastructure relocation processes
- Update Street Lighting Design Guidelines
- Transformer Sizing Methodology Review
- Formalize Transformer Inventory/Warehousing Solution
- Support HIP Streets – 4th Street Improvements
- East Substation Transformer 2 Replacement – Q3 2023
- Engineering Design for Airport Sub Switchgear Replacement and Highway 402 Electric system expansion
- Overhead to Underground Conversions – Highway 287 Phase 1 and 2, Madison Ave N/o 29th St, 14th St SW between Roosevelt & Taft
- Underground Replacements – Single Phase Primary in neighborhood adjacent to 37th and Colorado

# UTILITY APPLICATION SERVICES

**The safety of our field crews is priority number one for the Utility Application Services team.** Our goal is to create accurate and up to date data that represents real world environments - to create a digital twin of our utility systems. We strive to provide reliable and easy to use tools and applications for our crews to build their confidence in technology.

The Utility Application Services team has a standard of furthering their education and staying up to date with industry trends and newest innovations. Making sure everyone makes it home at the end of the day will always be our priority. Cyber security is a constantly changing discipline. Bad actors are evolving and are always finding new ways to attack networks. The Utility Application Services team implement network monitoring tools and consistently watch our cyber footprint for vulnerabilities.

Staying up to date on trends and being cyber forward helps us be prepared for any potential cyber breaches. It is essential to never get comfortable when dealing with cyber security. Staying educated and staying diligent is the approach we will take.



# CUSTOMER RELATIONS

OUTREACH, COLLABORATION & ENGAGEMENT

SUSTAINABILITY

**The rise of personalized customer experiences across industries set a new standard of consumer engagement for utility companies.** Customers want to interact with their utility by paying bills online, reporting outages or enrolling in efficiency programs.

The Customer Relations division was reorganized to implement strategies that allow our utility to maintain visibility and build trust in our community. We created a marketing team that focuses on our website, social media, content development, print media and video production. The marketing team considers how customers think and behave to ensure customer interactions are meaningful and productive.

Improving the customer journey through the utility website is a top priority in 2023. We will create pages that allow customers to easily navigate to programs and rebates, project information, event calendars and services. We will also track links and gather data so we can make informed decisions through the transition.

AMI education and outreach prior to the deployment of AMI meters in 2024 is a priority for Customer Relations. We are creating videos to educate customers about radio frequencies (RF), the benefits of AMI and what to expect during their meter changeout. We will also create web content and print features. The new AMI webpage will display a map of the progress of the project and an online opt-out form.

Customer Relations is also collaborating with our sister cities and Platte River Power Authority to develop and implement distributed energy programs as we grow closer to Platte River's Resource Diversification plan that calls for 100% noncarbon energy mix by 2030.

Program managers are focused on creating programs that provide value to our customers at a reasonable price.



**Our Customer Relations Team is at your service!**

*Left to right: Brian Nunnery, Rebecca Howe, Kim Edwards, Tracey Hewson, Carl Woodworth*

# CUSTOMER RELATIONS: LOOKING AHEAD

## 2024 Major Projects

- Website reconstruction
- Create email communications plan and establish citywide team
- Distributed Energy Resources (DER) program development
- Annual Report
- Strategic Plan
- Utility Survey
- Key Accounts Program
- Water Quality Report
- Emergency Operations Communication
- AMI Communications



## Larger objectives

- Three phase AMI communications plan: AMI 101, deployment maps, website content, videos, benefits of AMI
- Water education – Incentive programs, education, regional partnerships, water scarcity and fire mitigation education
- Carbon 2030 – Communication strategies around goals, premise, rates, community impacts, coordination with four cities and the Office of Community Engagement
- Program development DER –residential and commercial, Efficiency Works, improve customer outreach about incentives and rebates
- Website development and improved customer journey with new page buildouts, email communications plan, video production

OUTREACH, COLLABORATION & ENGAGEMENT

SUSTAINABILITY

Customer Relations partners with Resource Central to **provide discounted waterwise perennial "Garden in a Box"** kits tailor-made for Colorado yards and intended to greatly reduce water usage compared to traditional grass.

# UTILITY ACCOUNTING

**For the Utility Accounting Division, 2022 was a challenging and rewarding year that went by quickly.** A highlight was the completion of a cost-of-service rate study for the Power Utility that included some key changes to the rate structure for solar customers.

In the Warehouse, efforts continued in collaboration with the Power Engineering Division to be as prepared as possible for an industry-wide shortage of electric transformers. Also in the Warehouse, two excellent employees with nearly 60 years of combined experience with the City retired. Thanks to some great successors and the Knowledge Transfer Program, the Warehouse staff is well positioned for the future.

2023 has a new set of challenges, with the first cost-of-service rate study for Water and Wastewater in five years and adapting to new budgeting software. In the Warehouse, with the upcoming implementation of Advanced Metering Infrastructure (AMI) and the Pulse Utility transitioning into more of an operational phase, there are large challenges to find space for AMI meters and Pulse materials.

As we look ahead, our division will be providing support in efforts to find Federal and State grants and discounted interest rates for loans as a way to help fund very ambitious 10-year Capital Improvement Programs. With the advent of AMI, we also see the potential for more elaborate rate structures, such as Time-Of-Use. In the Warehouse, implementing a more robust program for tracking materials (an Allocation program) and transitioning to a more digital mode of operating (e.g. barcoding of materials) are what's on the horizon.



# FINANCIAL REPORT & HEALTH

## Utility Financials

The following graphs are intended to provide a very high-level perspective of some key financial metrics for the Water, Wastewater, Power and Broadband Utilities. They capture both the operating and growth-related sides of the utilities. The key areas that are portrayed are:

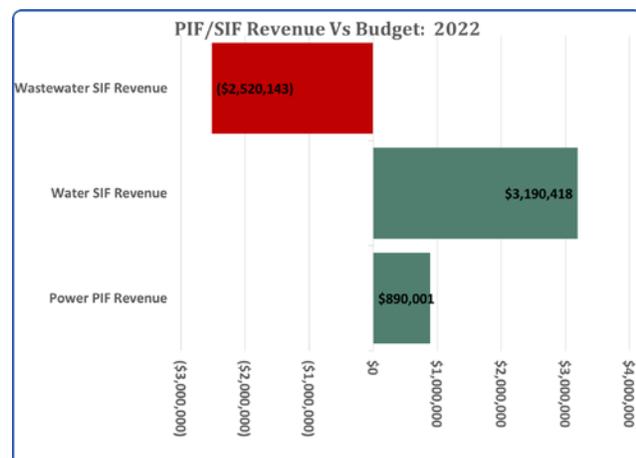
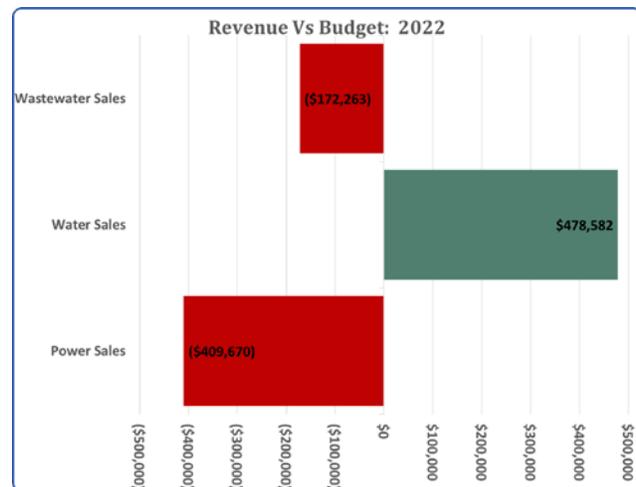
- A look at how actual sales compare to budget
- How growth-related revenue is faring compared to budget (PIF is for Plant Investment Fee, which is the growth-driven revenue for Power and SIF is System Impact Fee, which is the growth-driven revenue for Water and Wastewater)
- How are operating and maintenance expenses compared to budget
- How are general capital expenditures (rehab capital) compared to budget
- How are growth-related capital expenditures compared to budget

**In looking at 2022, it was a very strong year financially for all four utilities.**

All four were very close to their budgeted sales for the year, growth-related revenues were strong (a project with a contribution from a developer was delayed, so Wastewater was under budget), and Operating Expenses, General Capital Expenditures and growth-driven Capital Expenditures all came in well under budget.

Some of the underruns in capital were for projects that will continue into 2023, so those unspent funds are available to roll from 2022 and be re-appropriated in 2023.

We look forward to continuing to monitor and report on the financial progress of the utilities in 2023.

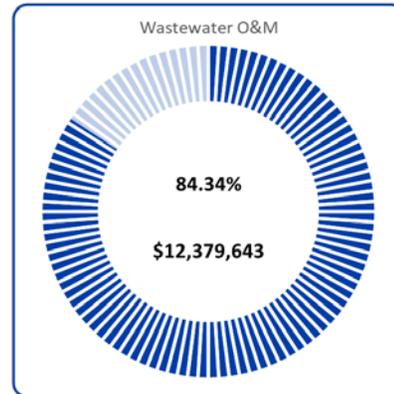
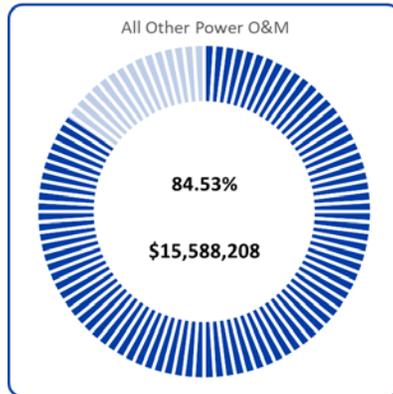
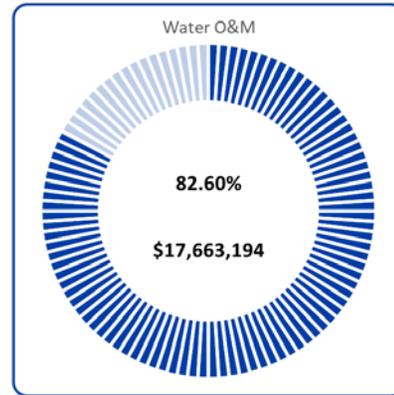
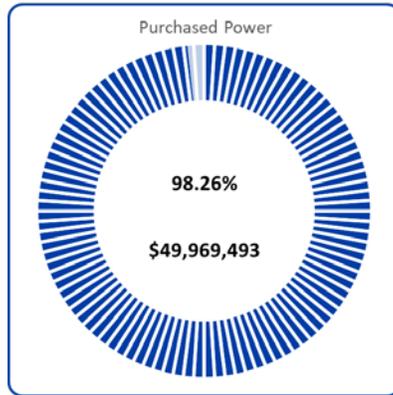


# FINANCIAL REPORT & HEALTH cont'd

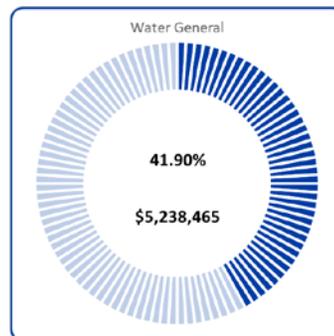
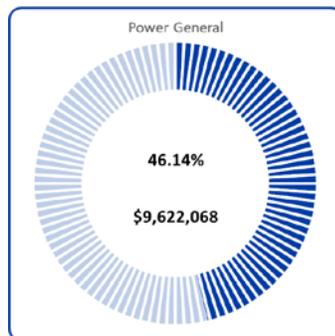
## Utility Financials cont'd

FISCAL STABILITY & STRENGTH

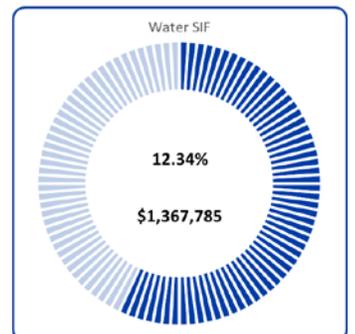
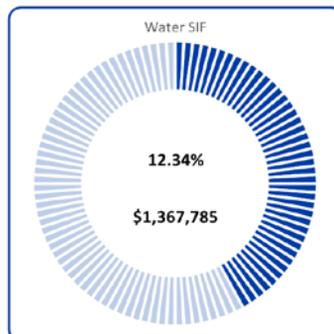
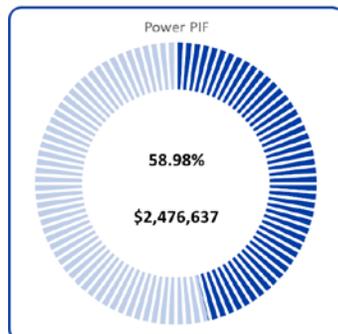
### Operating Expenses: 2022



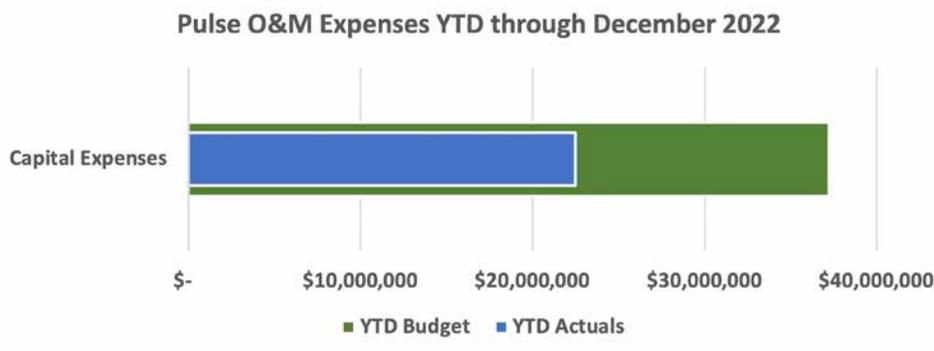
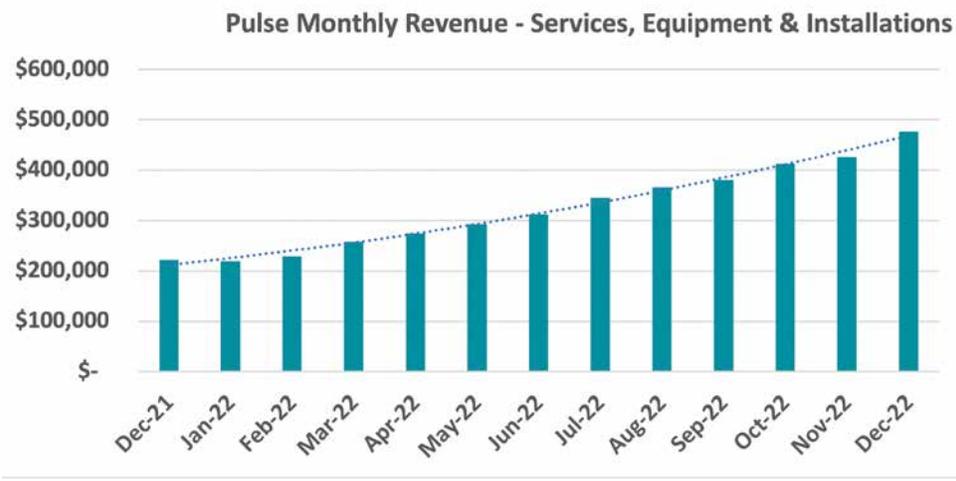
### General Capital Expenses: 2022



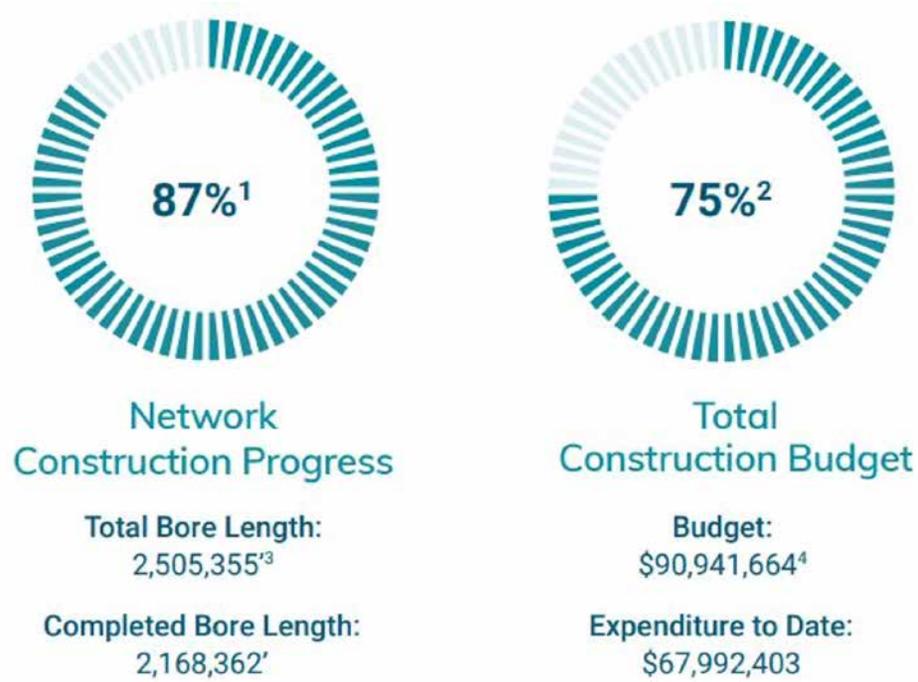
### PIF/SIF Capital Expenses: 2022



# Pulse Financials



# Pulse Capital



<sup>\*</sup>Reported from: November 25, 2019 – December 31, 2022

<sup>1</sup> Construction progress includes active network, and Hut installation in addition to overall bored length

<sup>2</sup> Invoicing follows completed work

<sup>3</sup> Total borina updated based on final desian estimate

FISCAL STABILITY & STRENGTH

LIVABILITY

**Pulse is a trusted local utility committed to connecting the City of Loveland and its surrounding community.** We provide reliable connections our residents and businesses need, backed by exceptional customer service and fair rates.

## Implementation Plan for 2023

- Complete Construction of “Big Build” within Loveland City limits by end of 2023.
- Expand access to surrounding Community through partnerships with Larimer County and neighboring communities.
- Prepare for unprecedented funding in broadband infrastructure by State and Federal grant programs.
- Maintain best in class service at competitive prices through launch of new services and products such as adaptive Wi-Fi, parental controls, and enhanced security.

## Pulse in Progress

The creation of a new utility to deliver multigigabit, fiber optic internet past every home and business address in our community is the largest project ever executed by the City of Loveland. Construction began in November 2019 and is on track to finish by the end of 2023 - on time and on budget!

2022 was an exciting year of growth and learning to overcome new hurdles with an ever-increasing customer base as more serviceable areas came online. Our team was able to successfully scale up as planned, and Pulse continued to deliver on its promise of unparalleled network reliability with 99.95% uptime and outstanding customer experiences. The year also brought unforeseen challenges, in the form of unprecedented inflation of material costs following the pandemic. These were even more apparent with high-growth new developments. That said, although difficult, it was a challenge successfully navigated.

As we look toward 2023, we are excited about the conclusion of the Loveland capital build, allowing us more bandwidth to continue to improve and expand our offerings to serve the community. Pulse is also working closely with Larimer County and other partners to prepare for unprecedented grant funding opportunities on the horizon, such as the Broadband Equity, Access, and Deployment (BEAD) program through the bipartisan Infrastructure Investment and Jobs Act. These funds, if granted, will allow Pulse to expand to bring connectivity to more of our community members beyond the borders of the City, and move Northern Colorado closer to its goal of equitable, ubiquitous, high-quality connectivity for everybody.



LIVABILITY

ECONOMIC VITALITY



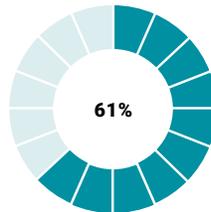
Vault Setting

### TAKE RATE



### RESIDENTIAL

### ACTIVE SERVICE AREA



#### Project Milestones

- 0-32%: Planned Ramp-Up During Construction
- 32-42%: Business Plan Break Even After Full Buildout
- 42-53%: Expected Take Rate After Full Buildout
- 42-53%: Projections Exceeded

Notes:  
Take Rate: Take rate is the percentage of total potential residential customers in active areas that subscribe for service. Learn more at [www.LovelandPulse.com/TakeRate](http://www.LovelandPulse.com/TakeRate)  
Active Service Area: Percentage of residents and businesses that are currently serviceable by Pulse.

### FIBER TO THE PREMISE HEALTH GAUGE



### SCHEDULE



### BUDGET

Notes:  
Schedule: One hundred and twenty weather days since November 2019 have impacted production rates but remain within seasonal expectations.  
Budget: Costs to date higher than anticipated as final design quantities were finalized, but are expected to stay within current budget.

### TYPICAL SERVICE AREA SCHEDULE

- When network construction begins in a neighborhood, we typically begin providing service within six to nine months.

### MILESTONES COMPLETED SINCE LAST REPORT

- Number of completed areas with boring complete: 153
- Number of areas with fiber installation complete: 146
- Successful Thankful For You Giveaway

### PULSE NETWORK CONSTRUCTION MAP

- Present-day snapshot of Pulse network construction and service availability [www.LovelandPulse.com/Map](http://www.LovelandPulse.com/Map)

### MILESTONES IN PROGRESS

- A controlled release of services.
- Construction in the Big Thompson Canyon & Sylvan Dale Areas
- Inter-governmental agreement with Larimer County for 3 additional under-served areas

### MILESTONES NEXT STEPS

- Launch of Starz Plex Superpack (TV)

**LOST TIME SAFETY INCIDENTS TO DATE: 1**

# DIRECTOR'S OFFICE

**Safety – First and foremost**, the City of Loveland Utilities focuses on safety in every Division. We do this by beginning each meeting with a safety minute followed by updates for safety training throughout the city.

Our crews begin each morning by a worksite briefing, then a tail board and tailgate safety meetings in the field. Each one of our employees are empowered to stop work if any staff member observes a hazard or other element that requires regrouping to address the hazard or situation. Our employees are encouraged to report near misses to their supervisor. We are fortunate to have a safety officer that helps each division on a regular basis.

SAFETY

LIVABILITY



## Compensation Study

The City of Loveland completed a city-wide compensation study in 2023. Results were released in the Spring of 2023 and implemented soon after. As a result of the study, the Utility had several title changes as well as updates to job descriptions. Now that the study is completed, there will be follow up as required later in 2023.

## Utility Service Center

The existing Utility Service Center was built in 1986 jointly between Thompson School District and the City of Loveland; the building has served the organization well for over 30 years. The building and its support systems are showing their age and the workforce has more than doubled. The locker rooms and conference rooms are all inadequate to keep up with the needs of the organization. In 2020, we began to evaluate options for an expansion.

This year we secured the service of VFLA Architects working closely with Public Works. Conceptual drawings, space requirements, and parking have all been reviewed in 2023. If approved by both our commission and city council, expansion and renovation is expected to begin in 2025.

## Raw Water Vulnerability Study

Staff developed and lead workshops with a Loveland Utilities Commission-lead workgroup. The study was completed in July, 2023 and a memorandum with recommendations will be sent to city council in the fall of 2023.

## Platte River Power Authority

The Platte River Power Authority's Integrated Resource Plan (IRP) is a comprehensive, long-term strategy that efficiently meets projected energy demand through a balanced integration of supply and demand side resources. Its primary goal is to determine the optimal combination of resources for reliable, cost-effective and environmentally sustainable electricity supply to customers. Supply side resources include renewables and dispatchable sources, with considerations for availability, cost and environmental impact.

Additionally, the IRP considers demand side resources and engages public input for community alignment. Regular reviews and updates adapt the plan to changing circumstances, technologies and regulations. Mandated by Western Area Power Administration (WAPA) every five years, the IRP paves the way towards a cleaner, greener and resilient energy future.

Our dedication to serve our community continues today and into the future; making sure our customers receive high quality power, water, fiber communications, and wastewater services 24 hours a day, 7 days a week, 365 days a year. We strive to be environmentally responsible, meet our financial budgets established for our rate payers, and meet or exceed national benchmarks for reliability.

# DIVERSITY, EQUITY, INCLUSION & BELONGING (DEIB)



Engagement to create  
connection, belonging and  
safety for self & others

## How the department is embracing DEIB:

**Focus on Internal Connections** Between Team Members to Create “CBS”

**Focus on Improving the Employee Experience** for Existing Team Members

**Focus on Internal Equity** in Balancing Roles and Responsibilities Among Existing Team Members

**Focus on Creating Welcoming and Inclusive Work Spaces** for Everyone, Starting First with Existing Employees and Then Expanding Opportunities for New Team Members.

# APPENDIX

Please visit [www.lovgov.org](http://www.lovgov.org) to view the City of Loveland's:

- Strategic Plan
- Boards & Commissions Calendar

Please visit [www.lovelandwaterandpower.org](http://www.lovelandwaterandpower.org) to view Water and Power's:

- Drinking Water Quality Report
- Water Efficiency Plan
- Source Water Quality Report
- Raw Water Master Plan

Please visit [www.lovelandpulse.com](http://www.lovelandpulse.com) to view Pulse's:

- Pulse in Progress Reports
- Affordable Connectivity Program

Please visit [www.prpa.org](http://www.prpa.org) to view Platte River Power Authority's:

- Strategic Plan
- Integrated Resource Plan



# MEMBERSHIPS



[acaconnects.org](http://acaconnects.org)



American Association  
for Public Broadband

[aapb.us](http://aapb.us)



[publicpower.org](http://publicpower.org)



American Water Works  
Association

[awwa.org](http://awwa.org)



ASSOCIATION OF  
METROPOLITAN  
WATER AGENCIES

[amwa.net](http://amwa.net)



[coloradopublicpower.org](http://coloradopublicpower.org)



[ccua.colorado.gov](http://ccua.colorado.gov)



[fiberbroadband.org](http://fiberbroadband.org)



[nacwa.org](http://nacwa.org)



[natoa.org](http://natoa.org)



[nctconline.org](http://nctconline.org)



[rmel.org](http://rmel.org)



[wef.org](http://wef.org)



THE  
Water  
Research  
FOUNDATION

[waterrf.org](http://waterrf.org)