

# Public Works Report

## September 2022

### Front Range (FRL) and Denver Regional Landfill (DRL) Updates

The RFP for landfill stakeholders process is on hold temporarily as we look to transition leadership of that effort internally from Public Works to another department.

The methane recovery system at Denver Regional Landfill (DRL) has been upgraded. As waste breaks down in any landfill it releases gases including methane. At many landfills including the closed (DRL), methane is captured and utilized for power generation. Any excess methane that is not needed for energy use is burned off in a controlled system to deter this gas from entering the atmosphere or from becoming combustible. As part of this upgraded system there is a new flare which is the specific equipment that burns off excess methane. The old flare was an enclosed system, but the upgraded flare will show a visible, blue flame when the system is operating. This visible flame is normal and not of concern. This methane extraction system and new flare is just west of the WCR5 and WCR6 intersection, meaning the flame may be visible from the Singletrack Trails and possibly farther to the west.

### Marshall Fire Debris Update

The Asbestos Waiver for the Marshall Fire Debris has been extended to January 3, 2023. Incoming loads continue to dwindle in volume.

## Capital Improvement Projects

### North Water Reclamation Facility (NWRf) Expansion (no new information)

Construction of this \$30+ Million project continues, on budget and within schedule. This project will continue into 2023. We anticipate that we can be producing a high-quality Class A biosolids towards the end of this year. A third aeration/fixed media basin was recently brought online and tested, which will effectively increase the plant hydraulic capacity by 33%.

## Sustainability and Water Conservation

### Air Quality & Transportation

- Erie participated in its first regional [Transportation Electrification Plan](#). Opportunities to participate in implementation will be posted on the Town's Electric Vehicle [webpage](#) beginning this Fall.
- Erie's first Anti-Idling educational campaign, in partnership with BVSD and SVVSD, launched Sept. 2. Take the [community \(and employee\) survey](#) today!



- [Mow Down Pollution](#): rebates for trading in gas-powered mower and purchasing an all-electric mower are live and available while funds are available! [Indoor air quality rebates](#) are also going fast!
- [Electric vehicle charging stations](#) continue to enjoy their highest usage month after month. They have cumulatively offset 9,820kg of greenhouse gas emissions so far. This equates to 253 trees planted and reducing GHG emissions for 10 years. The electricity used translates to 13,891 kilowatt-hours (kWh) or enough energy to power the entire state of New York for a day.

### **Energy**

- An Energy Efficiency & Renewable Energy Toolkit was sent to all HOAs and highlights renewable energy resources from both Xcel Energy and United Power. The utilization of renewables will help accomplish goals set in Erie's [Energy Action Plan 2.0](#).
- IECC Code updates with local EV and solar-ready amendments to be adopted in September.
- Erie's launched its first GHG Inventory and will be collecting community-wide data sets. Report and public dashboard are scheduled to be completed by the end of 2022.

### **Waste, Recycling, & Composting**

- [Fall Cleanup](#) event details are live on the Town's website and the hard-to-recycle materials collection event at the Service Center is open from 8am-2pm, September 10 and will include new items such as paint, household batteries, gardening chemicals, aerosols, adhesives, house hold cleaning supplies, and more!
- A [Preferred Hauler RFP](#) was released to service Old Town, Northridge, and Airpark beginning January 2023. The bidding process will close September 30 and a presentation to the Board is scheduled for October 18.
- Tabling for sustainability and the Preferred Hauler RFP education is scheduled for Erie Biscuit Day, September 17.
- Zero Waste Town Meetings and Special Events continues to improve. Compostable kits and collapsible bins are available for use.

### **Water Conservation & Efficiency**

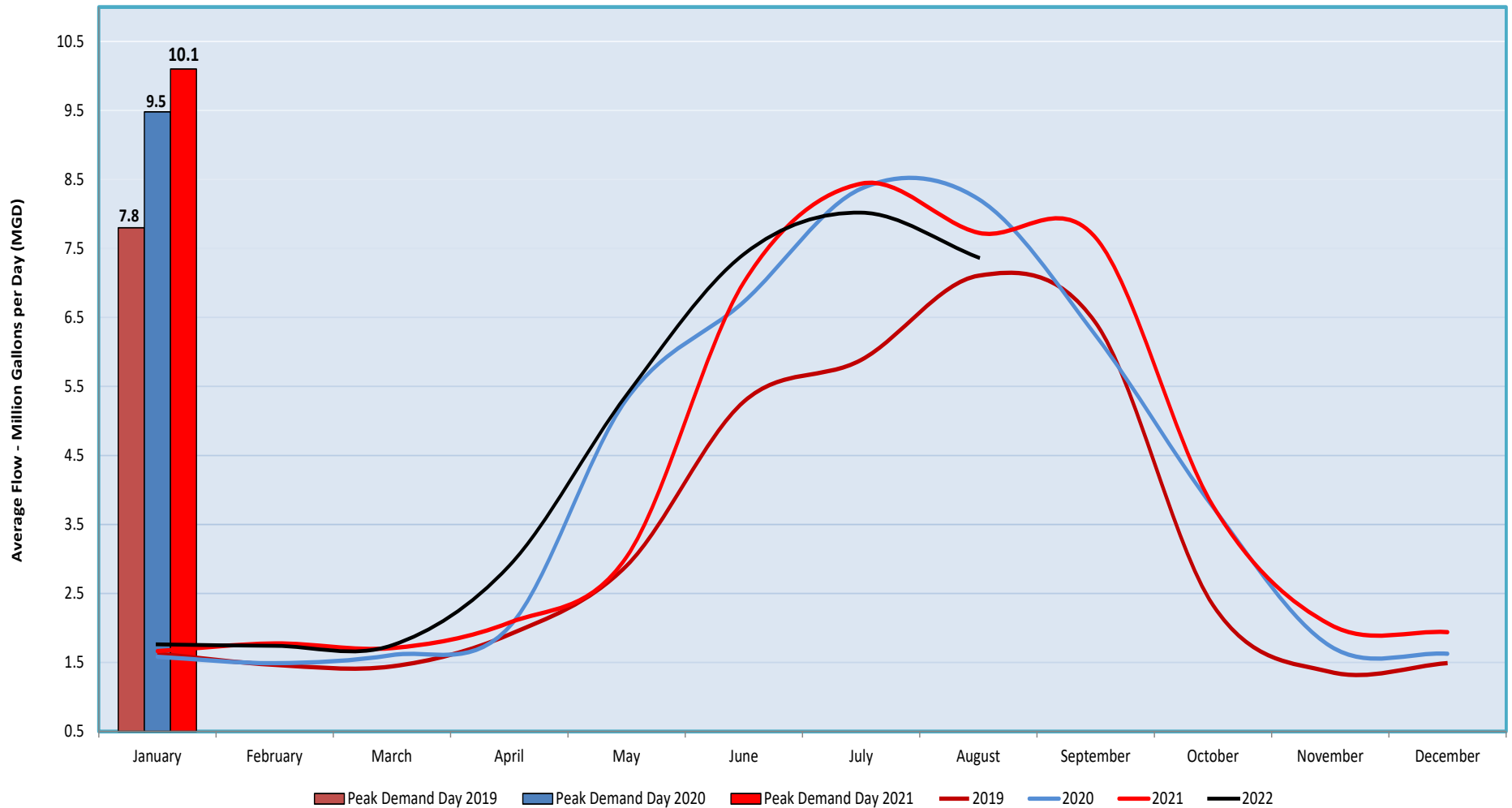
- The new turf replacement has helped replace more than 35,000 square feet of turf. More than 200 residents have taken advantage of the Town's water efficiency rebates.
- All tier 4 water utility customers (768) were sent a letter identifying them as the top water users and requesting they explore ways to use less water. More than 40 have responded so far with questions, interests in programs and rebates, and several leaks detected that have been fixed by the homeowners.
- Sustainability and Parks & Recreation have worked together to upgrade the Town's irrigation systems. Equipment such as flow sensors, smart control irrigation clocks, and soil moisture sensors have been purchased and will be installed.

## Lynn R. Morgan Water Treatment Facility (WTF)

**Average Flow Million Gallons per Day (MGD):**    2019 – 3.3 MGD    2020 – 4.1 MGD    2021 – 4.3 MGD

July 2021 maintains the record for the highest monthly average flows at 10.1 MG, while November 2019 had the lowest flows at 1.36 MG. We are moving into an extended dry/drought situation. Water demand has tapered slightly over the last two months due to increased precipitation.

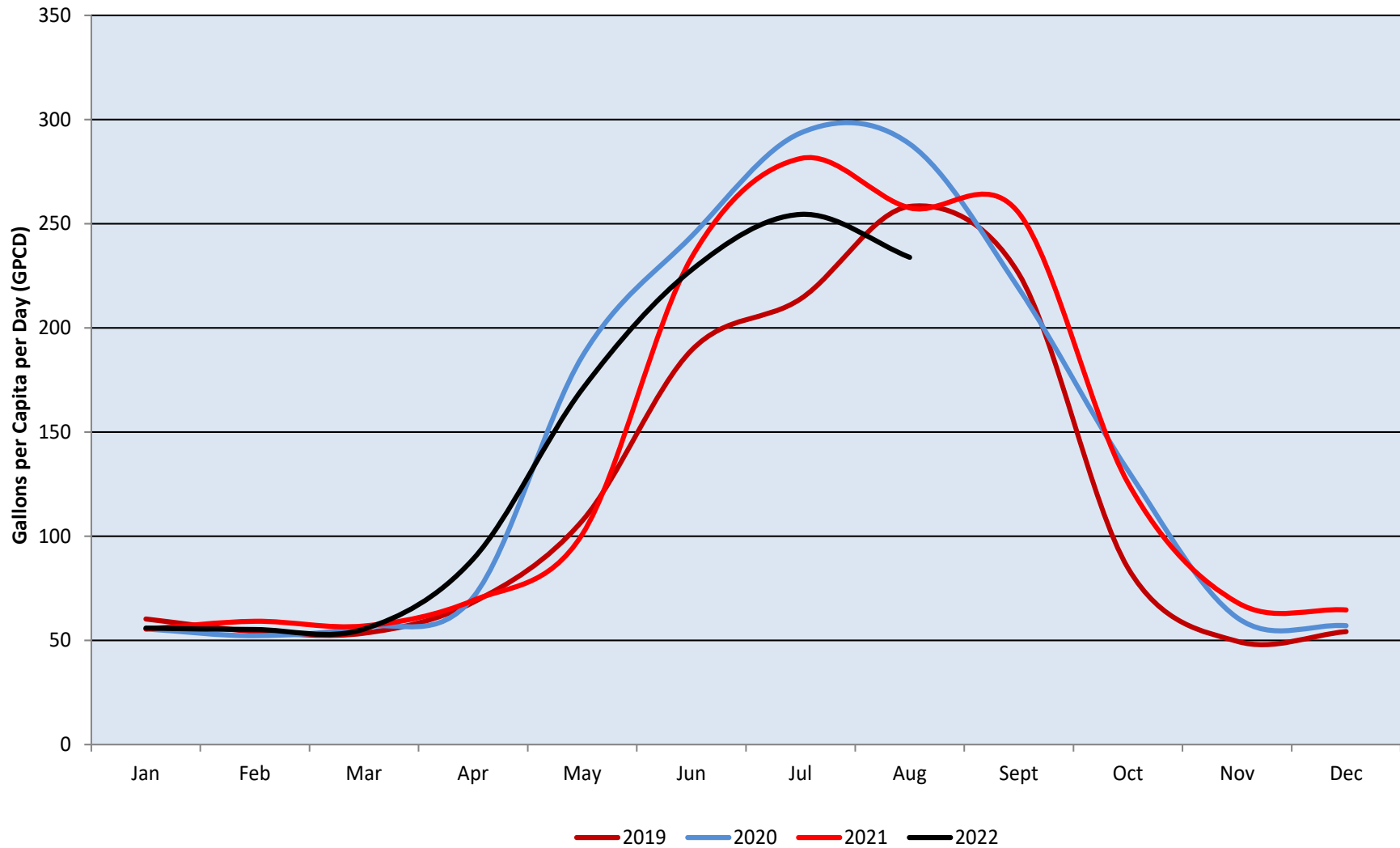
### Average Monthly Production



**Average Per Capita per Day (GPCD):**     **2019** – 118 GPCD     **2020** – 143 GPCD     **2021** – 136 GPCD

July 2020 had the highest average daily usage at 294 gallons GPCD. November 2019 had the lowest usage at 50 GPCD. Indoor demands during winter remain relatively stable. Average daily usage took a big jump in 2020 and 2021 due to COVID and drought, this trend is growing. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future.

## Average Daily Usage Per Capita



## North Water Reclamation Facility

### Average Flow MGD:

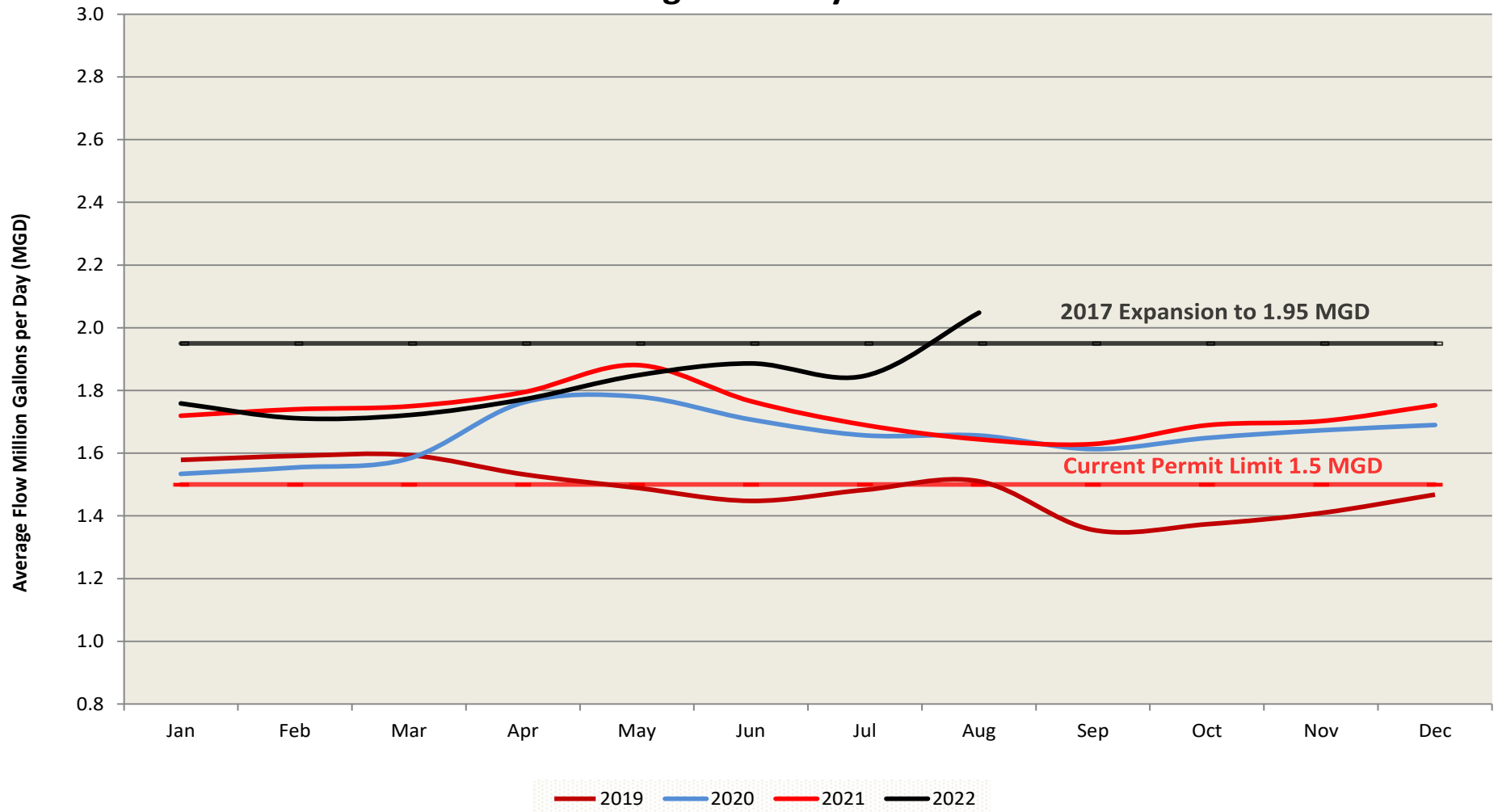
2019 - 1.49 MGD

2020 - 1.66 MGD

2021 - 1.73 MGD

September 2019 had the lowest average flow of 1.36 million gallons per day (MGD). May 2021 set a high average monthly flow of 1.88 MGD. We believe we are very close to seeing a new permit for our North Water Reclamation Facility (NWRf), this permit is currently over 6 years expired, due to inefficiencies at Colorado Department of Water Quality and Environment (CDPHE). Our current hydraulic capacity, as part of the existing expansion is 3.0 MGD, or the upper end of the graph attached. Inflows increased this month due to intermittent, intense rainstorms.

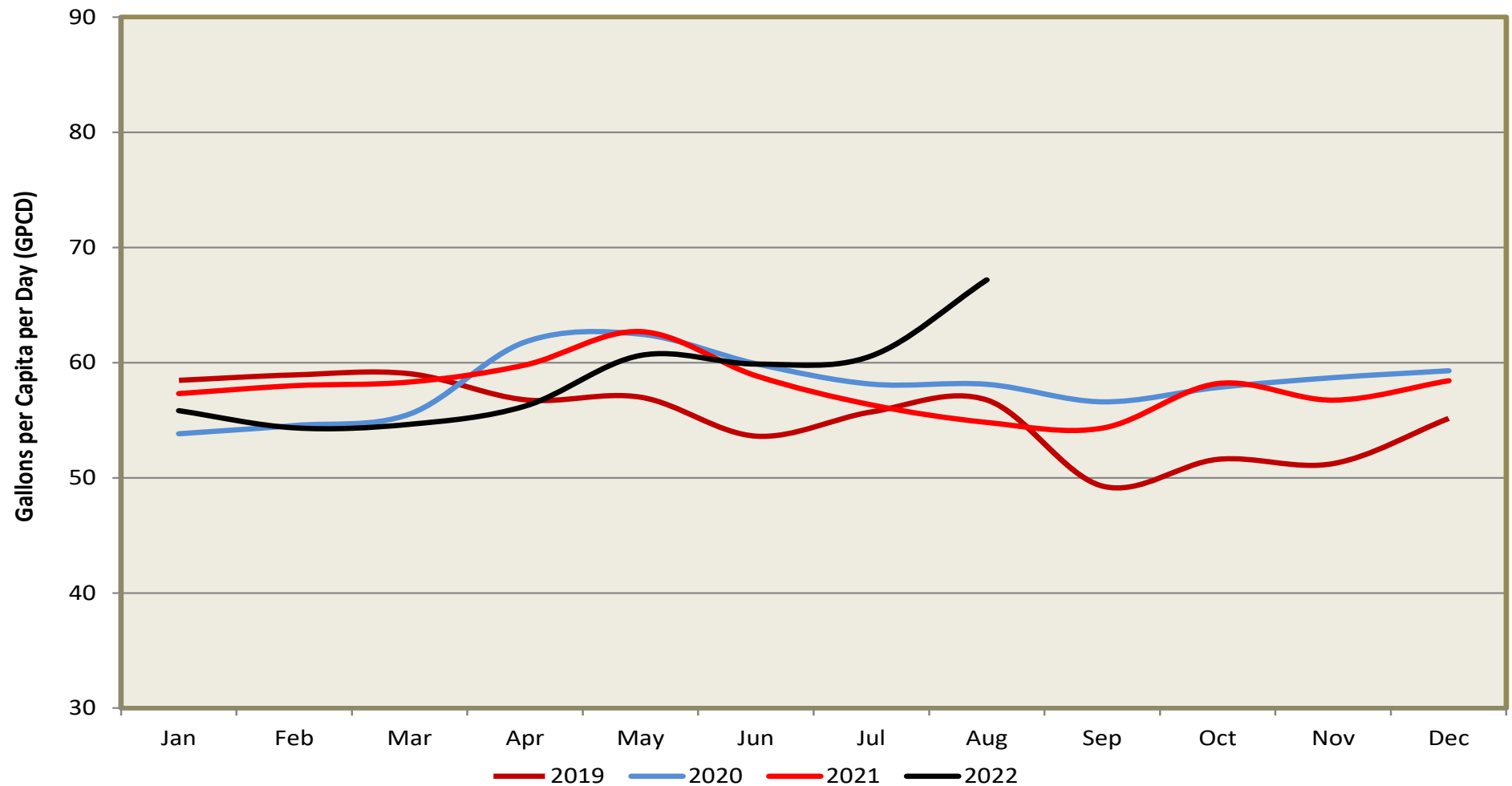
### Average Monthly Flows



**Annual Gallons Per Capita per Day (GPCD):**      **2019 - 55 GPCD**      **2020 - 58 GPCD**      **2021 - 58 GPCD**

This graph depicts customer indoor water usage. May 2021 had the highest usage at 63 GPCD. September 2019 had the lowest usage at 49 GPCD. Fall, with relatively little precipitation and dropping groundwater levels, is typically a good indicator of true daily flows. Climate change may be challenging such assumptions.

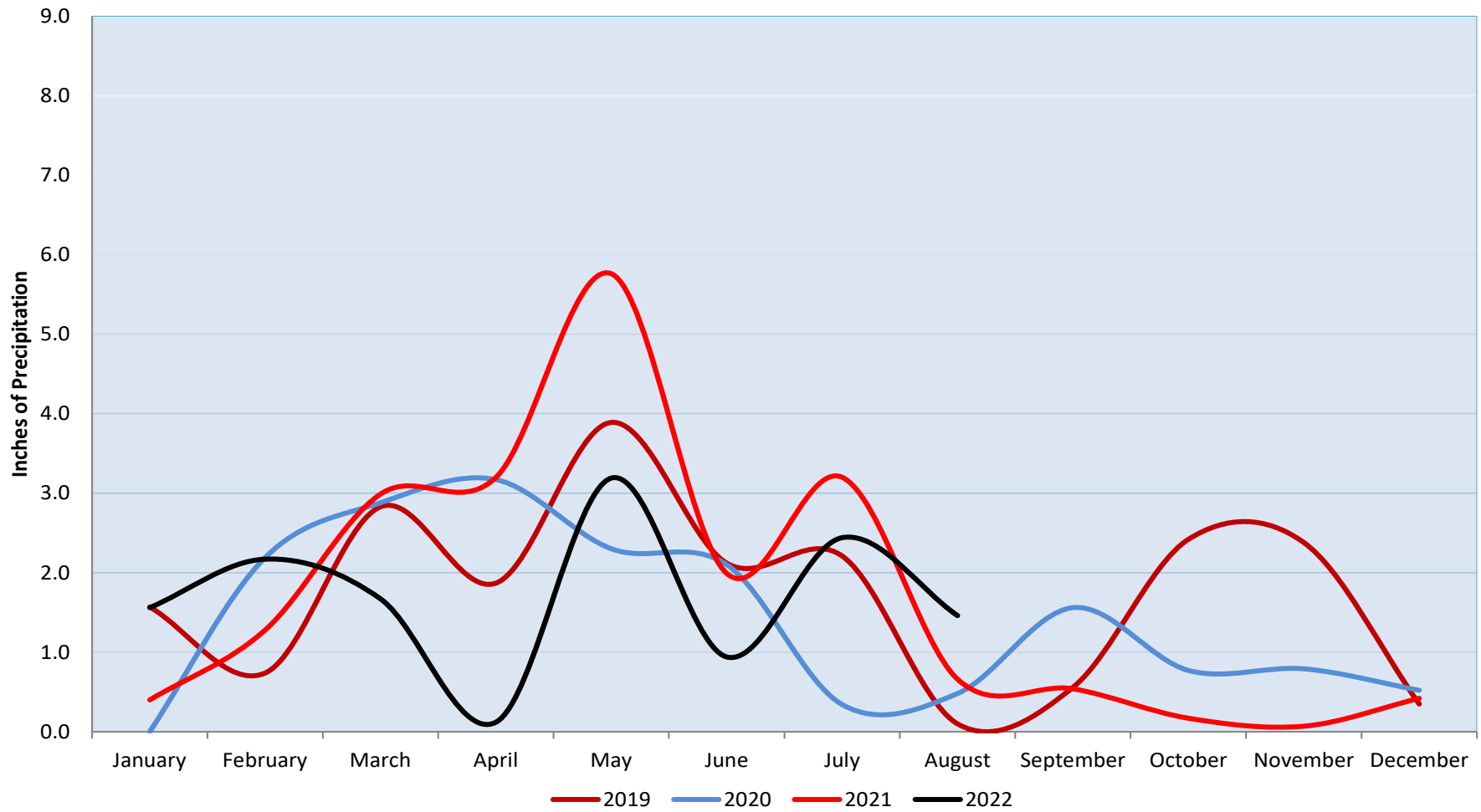
## Average Daily Usage Per Capita



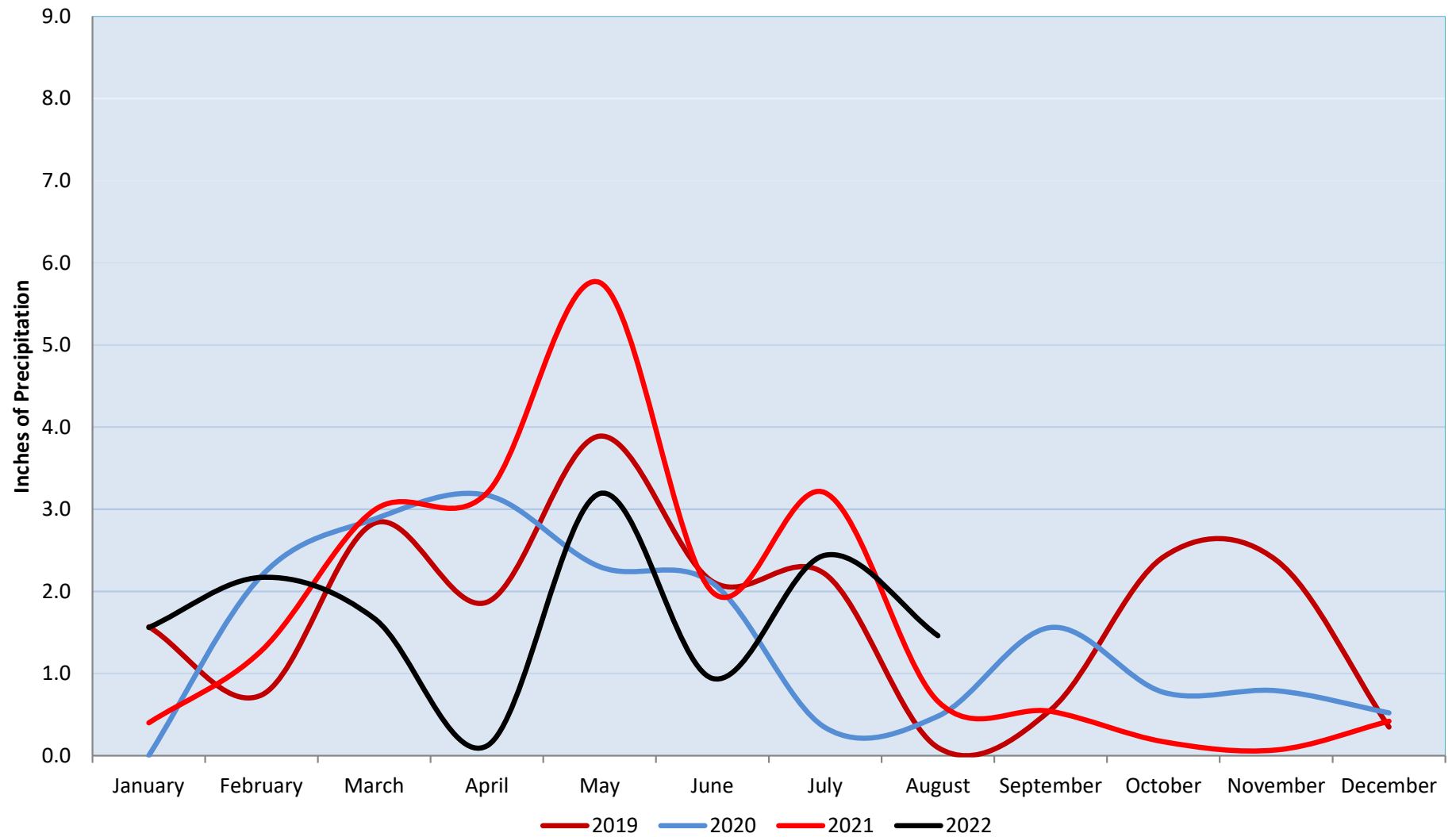
## Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

NOAA is predicting 33-40% below normal precipitation and 40-50% above normal temperatures into late September. Drought conditions, though slightly improved in the west over the last month, are concerning, especially on the Colorado River. Experts estimate we are in the worst drought in 1200 years in the west. Erie's water supplies this year are in good shape, we will be keeping a close eye next year

### Precipitation



# Precipitation





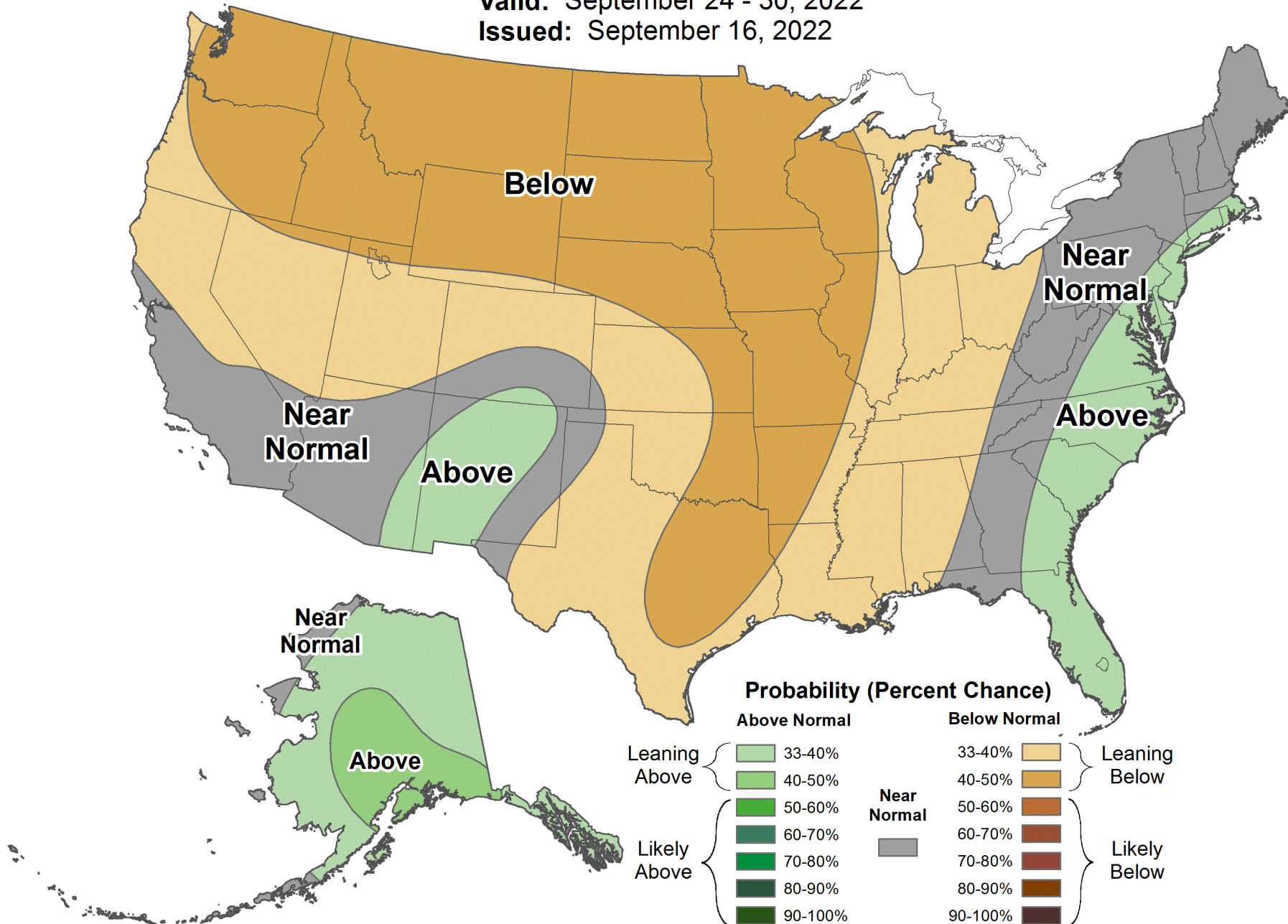


# 8-14 Day Precipitation Outlook



Valid: September 24 - 30, 2022

Issued: September 16, 2022





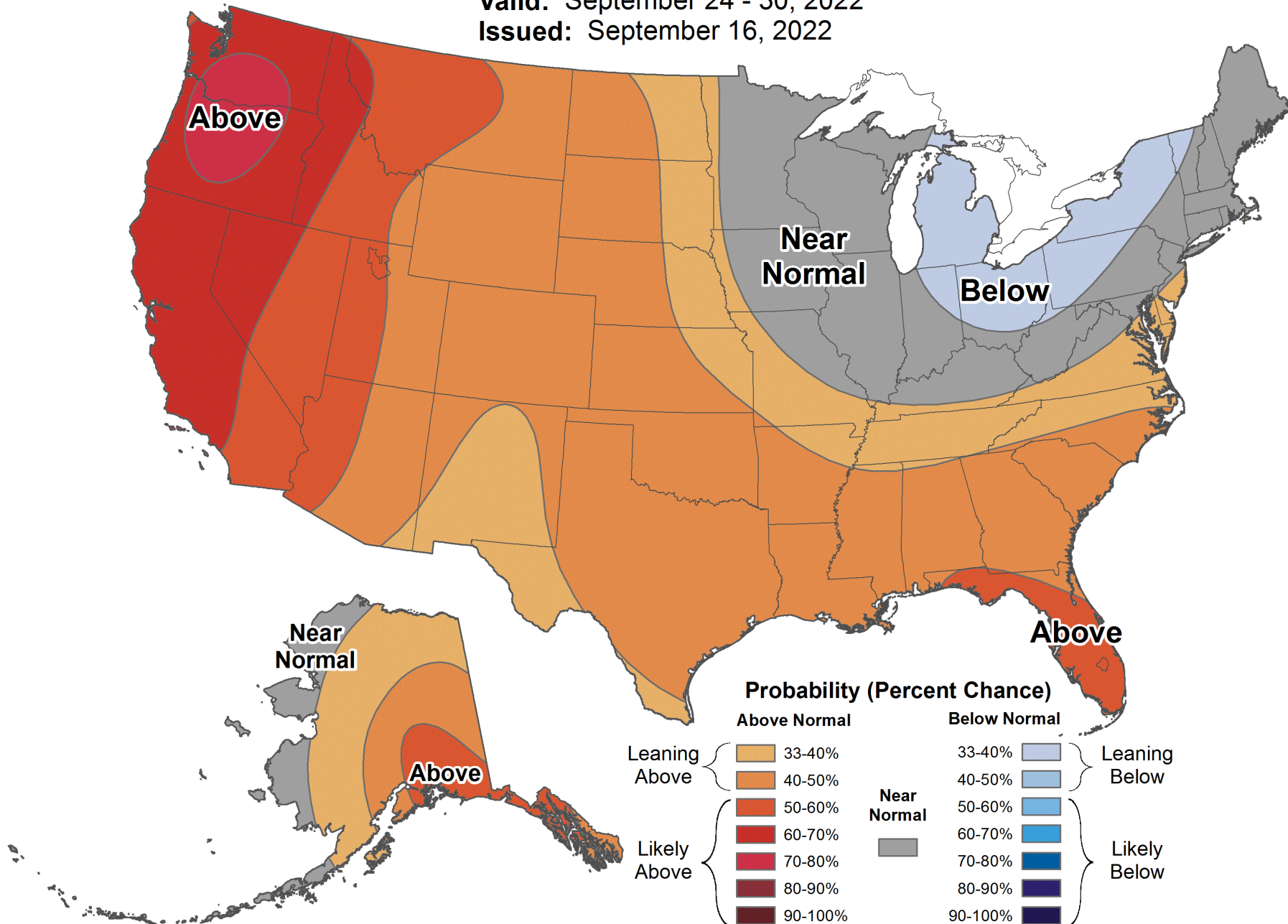


# 8-14 Day Temperature Outlook



Valid: September 24 - 30, 2022

Issued: September 16, 2022

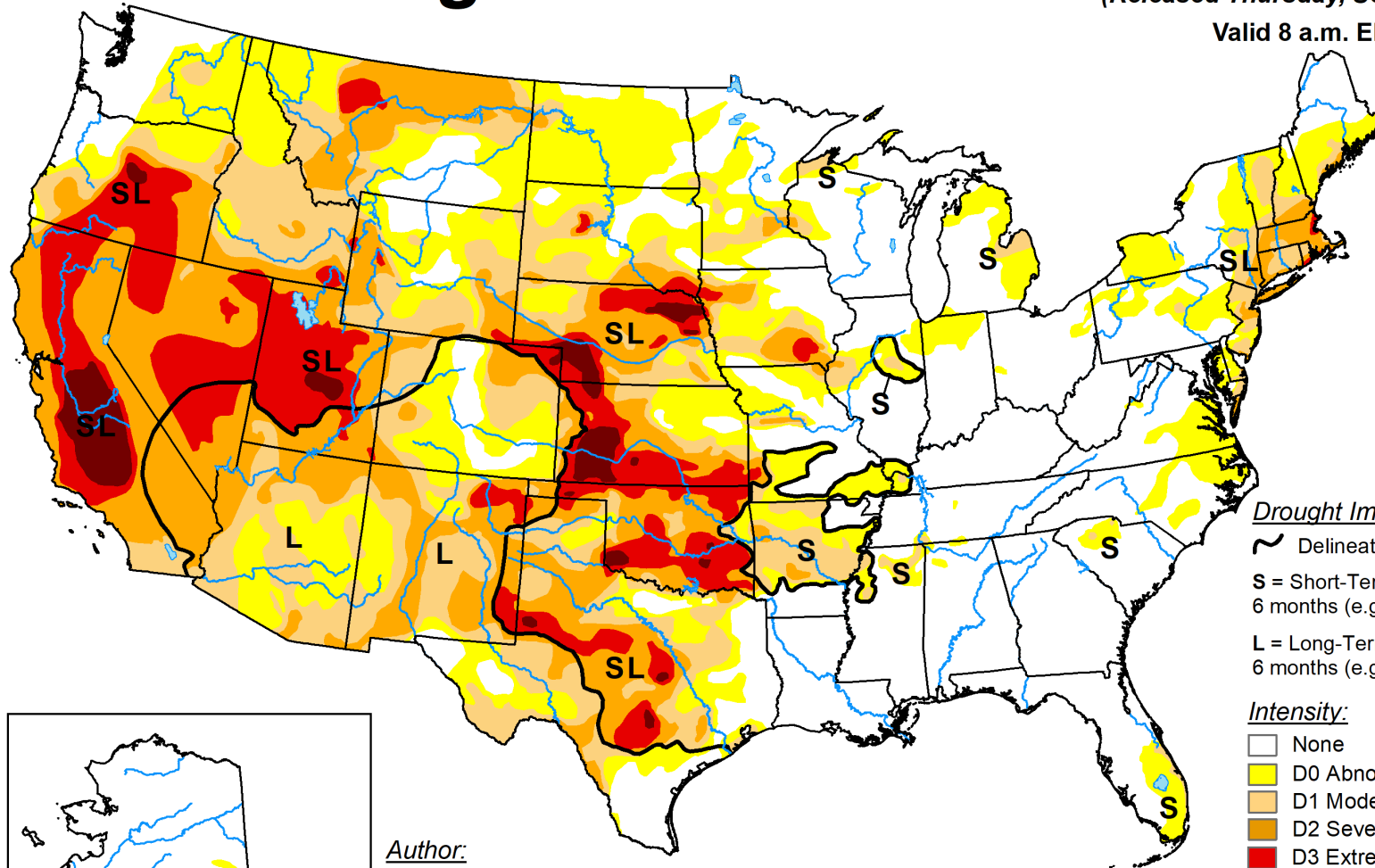


# U.S. Drought Monitor

September 13, 2022

(Released Thursday, Sep. 15, 2022)

Valid 8 a.m. EDT

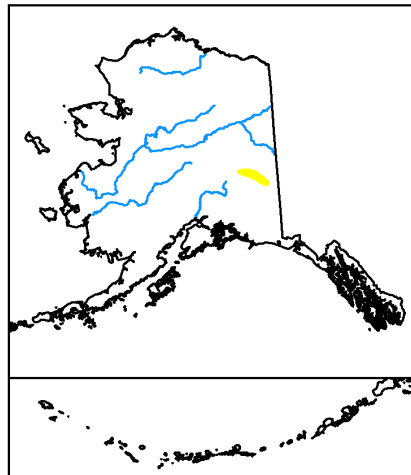


## Drought Impact Types:

- ~ Delineates dominant impacts
- S** = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L** = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

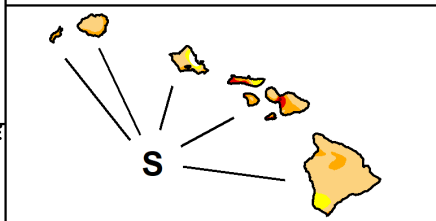
## Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought



## Author:

David Simeral  
Western Regional Climate Center



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

## Engineering Division Updates

### Land Use Projects

Project Name	Project Description	Project Status
Erie Air Park Replat D	5 Light Industrial/Hangar Bldgs - 10.340 acres	Scheduled for BOT
Erie Highlands Filing 18 FP	Residential - 124 townhome units	Referral Review
Old Town - Main Street Subdivision	Final Plat 16 Residential Lots	Referral Review
Old Town - Lots 3-5 – Rockton Building	3 Story Building - Restaurant/Tavern & Coffee Shop/Bakery	Conditionally Approved
Lafferty Farm	Preliminary Plat - 127 Residential Lots	Referral Review
Baker Property Minor Subdivision	Subdivide property	Referral Review
Ranchwood Town Center	Residential Mix of Townhomes and Apartments – 288 Units	Referral Review
Colliers Hill Filing 6 – Preliminary Plat	Residential - 452 Single Family Units	Referral Review
Old Town - Erie Junction	Residential - 10 duplex buildings/1 tr-plex building	Referral Review
Colliers Hill Filing 4H FP	Residential - 160 single family rear loaded lots	Referral Review
Redtail Ranch PP	Residential - 546 lots	Referral Review
Erie Village Filing 5	Minor Subdivision/ Site Plans – Mixed use development, 38 Townhomes, 32 Single Family Residential, 30,000 sq. ft office/retail	Referral Review
Westerly PP 2	Zone 4 water Development Area	Preliminary Plat Approved
Spring Hill PP	Residential Development	Referral Review
Parkdale Northern Properties	Annexation	Approved
Erie Indoor Sports – Preliminary Plat	SE Corner of CLR and Bonnell	Referral Review
Westerly PP 3	Residential - 276 units - Single Family/Paired Homes/Townhomes	Referral Review
Canyon Creek Filing 7 FP	106 Single Family Units	Referral Review
Canyon Creek Filing 8 FP	88 Paired Homes	Referral Review

Parkdale – Masters Property PP	93 Residential Units	Referral Review
Erie Four Corners – FP	247 Units	Approved; Finalizing Engineering
Erie Highlands Commercial	Commercial Plat	Finalizing Review
3330 Arapahoe Road – SP	Super Star Car Wash	Referral Review
111 <sup>th</sup> and Arapahoe Road	Annexation and Initial Zoning	Referral Review
Westerly Amenity Center	Site Plan	Referral Review
Vista Ridge Filing 14, Lot 9	Children's Eye Physician	Referral Review
Nine Mile – King Soopers Fuel Station	Site Plan	Referral Review
Four Corners – Pinnacle Apartments	Apartments – 202 Units	Referral Review
Nine Mile Corner – Chase Bank – Lot 9	Site Plan	Completeness Review
Summerfield FP 1	446 Residential Lots	Referral Review
Parkdale North Sketch Plan	537 Lots	Referral Review

### Construction Inspector projects and status

Project	Status
BV PK-8 School	In Initial Acceptance Process
Compass Filing 3	In Warranty
Compass Filing 4	In Warranty
Flatiron Meadows Filing 11	In Final Acceptance Process
Flatiron Meadows Filing 12	In Final Acceptance Process
Flatiron Meadows Filing 13	In Final Acceptance Process
111th Waterline Extension	In Warranty
Nine Mile MS	In Warranty
Nine Mile MF	In Warranty
Nine Mile Lowe's	In Warranty
Nine Mile Taco Bell	In Warranty
Nine Mile UC Health	In Initial Acceptance Process
Nine Mile Lot 3 Shops	In Warranty
Parkdale Fil 1&2	Under Construction
Parkdale Fil 3	Under Construction
Wild Rose	In Warranty

Erie Highlands Filing 5	In Warranty
Erie Highlands Filing 9	In Final Acceptance Process
Erie Highlands Filing 10	In Final Acceptance Process
Erie Highlands Filing 11	In Final Acceptance Process
Erie Highlands Filing 14 & 15	Under Construction
Erie Highlands Filing 16	Under Construction
Soaring Heights School	In Initial Acceptance Process
Colliers Hill Metro District 2	In Final Acceptance Process
Colliers Hill Filing 4A	In Final Acceptance Process
Colliers Hill Filing 4B	In Final Acceptance Process
Colliers Hill Filing 4C	In Final Acceptance Process
Colliers Hill Filing 4D	In Warranty
Colliers Hill Filing 4E	In Warranty
Colliers Hill Filing 4F	In Warranty
Colliers Hill 4G	Under Construction
Colliers Hill 4I	Under Construction
Colliers Hill 5	In Warranty
Erie Commons Filing 4 - 3rd Amend. Townhomes	In Warranty
Erie Commons Filing 4 - 4th Amend. Commercial Plat	In Initial Acceptance Process
Erie Commons Filing 4 - 5th Amend. Wee Cottages	Under Construction
Erie Commons Filing 4 - Circle K	In Initial Acceptance Process
Erie Commons Filing 4 - Ziggy's Coffee	Awaiting Pre-Con
Erie Commons Filing 4 - Premier Members Credit Union	Under Construction
Sunset	Under Construction
Highlands Elementary	In Initial Acceptance Process
Westerly Filing 1	Under Construction
Westerly Filing 2	Awaiting Pre-Con
Morgan Hill Filing 1	In Final Acceptance Process
Morgan Hill Metro District Improvements	In Final Acceptance Process
Morgan Hill Filing 2	In Warranty
Morgan Hill Clubhouse / Pool	In Warranty
Right Move Storage	In Warranty
Erie Self Storage	In Initial Acceptance Process

Vista Ridge Filing 1A	Under Construction
Vista Ridge Filing 6, 2nd Amendment	In Warranty
Vista Ridge Filing 14, Lot 12B	In Warranty
Vista Ridge Filing 14, Lot 12 A&D	In Warranty
Vista Ridge - Popeye's	In Warranty
Vista Ridge - Autowash	Under Construction
Rex Ranch Filing 1	In Warranty
Rex Ranch Filing 2	In Warranty
Rex Ranch Filing 3	In Initial Acceptance Process
Old Town - 730 Briggs	In Warranty
Coal Creek Properties	In Warranty
Creekside	In Initial Acceptance Process
Coal Creek Center - Core and Shell (Starbucks)	Under Construction

### Capital Improvement Projects

Project	Status	Project Manager
Traffic Signal Communication Project	Testing of Communication Equipment	TB
Weld County Road 7 and Erie Parkway Signal	Roadwork Under Construction (west of WCR 7) / Signal on Order	WP
Coal Creek Reach 1 - 3 Improvements	Design / CLOMR (Now exploring incorporating Reach 2 in CLOMR)/ Levee Re-Certification	WP
Zone 2 Waterline Improvements	Concept Complete - On Hold Due to Tank Site Acquisition	ZA
Zone 2 Tank Site and Tank Design	Concept Complete - Coordinating with Landowners on Acquisition	ZA
Horizontal Directional Drilling Well Project	Well complete and developed. Undergoing testing.	ZA
North Water Reclamation Facility Expansion	Under Construction	WP
Hydro-Turbine Project	VFD on Order	WP
Austin Ave, Zone 2 Waterline	Restoration Work Ongoing	WP
Zone 3 - Phase 2B and Zone 4 Waterline Extension	Design Complete; Acquiring Easement	WP
County Line Road Improvements - Telleen to Evans	In Design - Comments submitted to consultant for updates	WP
County Line Road Improvements - Telleen to Austin	Preliminary Design Phase	SH/WP
Erie Parkway Bridge over Coal Creek	Restoration Work Ongoing	WP



Old Town Connection to Colliers Hill	Concept Design Underway	SH/LB
IGA with Colliers Hill - WCR 5 Widening/Re-Use Line Ext.	Roadway Undergoing Punch List Corrections; Landscaping work underway; Signal Anticipated in November	TB
Town Center Roundabouts - Design and Construction	Design Underway / Land Coordination	ZA
Re-Use Waterline Extension to Erie Community Park	In Warranty	ZA
Water Quality Pond - Lagoon Conversion	90% Design Review / Water Rights being Confirmed	WP
Mobile Bypass Pumping Station	Starting Acquisition Process	ZA
119th and Erie Parkway Roundabout Improvement	Finalizing Design for Bid Documents; Coordinating with Xcel	ZA
111th and Arapahoe Intersection Improvements	Selecting Consultant / Drafting IGA with Lafayette	ZA
Boulder Creek Streambed Stabilization	North Area Stabilized / South area design underway	ZA/BC
Pipe South Boulder Canyon Ditch along 119th	In Design	ZA
Re-Use High Zone Pump Station	Pumps on Order	WP
Vista Ridge Detention Pond Modifications	In Design	SH
Meadowlark School Improvements	Study Completed/ Design Underway	SH
Neighborhood Speed Mitigation Program	Undergoing Scope Revision	DP/CH
Red Hawk Elementary School Traffic Study	Reviewing Scope of Work	DP/CH

### **Projects in Support of other Departments**

#### Interdepartmental Projects

Central Square Software Implementation – Kickoff with Consultant being scheduled

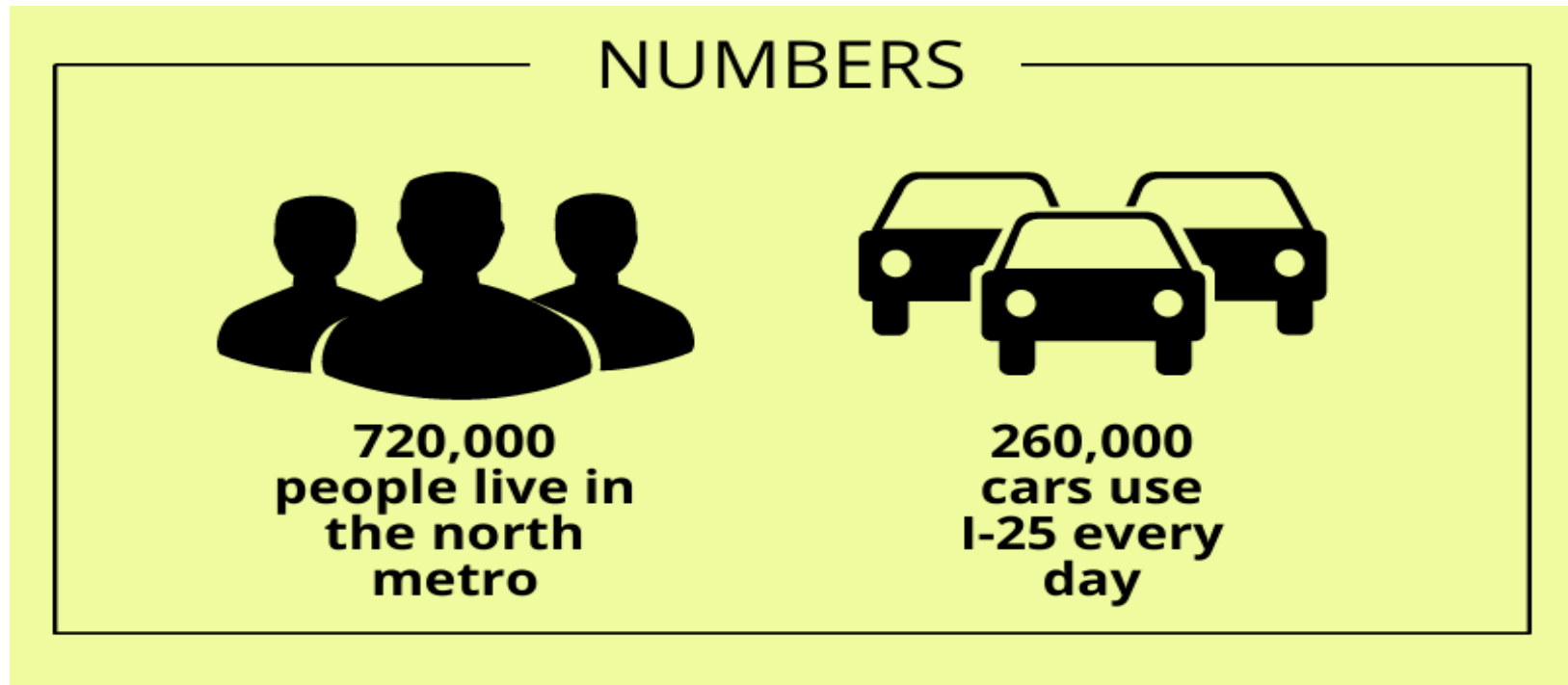
Comprehensive Plan, Plan Map, and Zoning Map Amendments and Transportation Master Plan

2023 Town of Erie Standards and Specifications for Design and Construction Updates

On-Call Traffic Consultations and Evaluations – CH/ DP

Neighborhood Speed Mitigation Program





**A few of the projects we are currently engaged in:**

- SH7 & 119<sup>th</sup> Intersection Improvements – Lafayette/CDOT
  - SH7 Preliminary Corridor Design – CDOT
- US287 Bus Rapid Transit – Phase 2 – Mobility and Safety
- SW Weld County and Boulder County Subregional DRCOG Forums
  - DRCOG Transportation Master Plan –TIP Calls
  - SH 52 & I-25 Mobility Hubs