

Public Works Report

October 2023

Front Range Landfill (FRL) Updates

Due to it being closed, Denver Regional Landfill will only be reported on here by exception. Facilitator Request for Proposals for FRL Community Stakeholders process closed at midnight Oct. 13. We have at least four proposals.

Capital Improvement Projects

NWRF Solar

Project includes an approximately 5.5-acre solar array east of the facility that could cover close to 100% of the building's current energy use. Grant funding is being explored to support this project. Waiting on additional information from Iconergy, which has been conferring with United Power and mapping electrical feeds through multiple meters. Grant funding and new IRA cash back in lieu of tax credits are being explored to support this project. We expect a proposal mid-October.

North Water Treatment Facility (NWTF) Design

Design has kicked off on this second Water Treatment Facility at the NWRF Facility site. This facility will treat Boulder Creek water and Filly Lake water initially, then later be expanded to treat NISP, and possibly be a joint-use project with Left Hand Water District to treat their NISP water, for reasons of economy of scale. This phase of the design will progress us to 15% drawings, site conceptual layout, treatment alternatives, green infrastructure alternatives (Triple Bottom Line) to include a large solar array. We are looking at two additional alternatives, which may include an expansion of the existing Lynn R Morgan Water Treatment Facility to treat this Boulder Creek Supply as well.

Streetlight Acquisition:

Negotiations to purchase Town streetlights from Xcel Energy and United Power continue. Town representatives will join a United Power board meeting in late October to discuss their proposed power rate structure. Purchase date could be as early as Q1 in 2024. The Town is working with TANKO to establish a Streetlight Master Plan to guide streetlight related development moving forward.

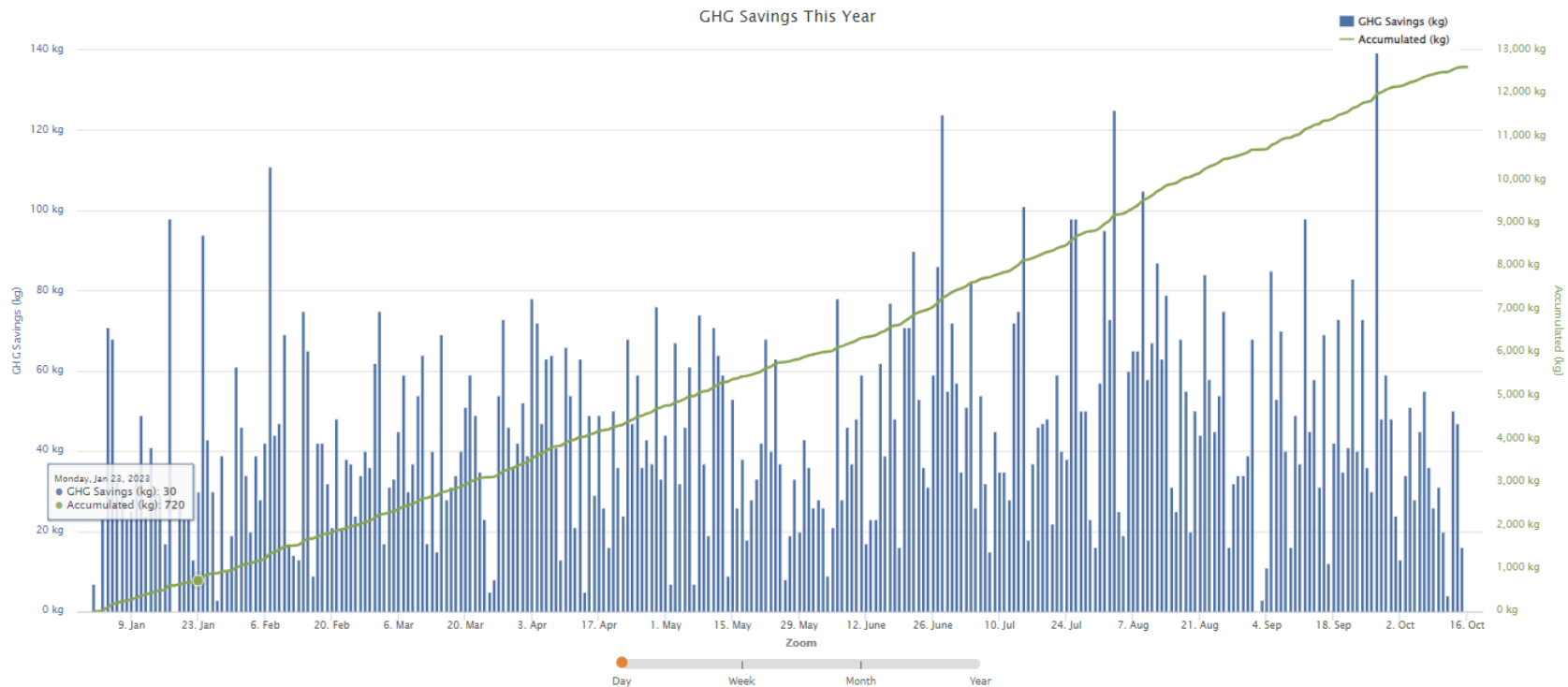
Sustainability and Water Conservation

Sustainability Division General Updates:

The Sustainability Division has moved to 625 Pierce Street. Solar was installed on the roof in October and is waiting on Xcel for final connection. The Air Source Heat Pump is installed, and the building will soon be net zero for its carbon emissions. Sustainability will have an open house later this year to showcase the building and its renovations.

Air Quality & Transportation:

- The Sustainability Division continues to participate in the Boulder County Regional Transportation Electrification cohort. We are waiting to hear about Boulder County's grant of which Erie committed as a project partner along with most other Boulder County municipalities.
- [Indoor air quality rebates](#) continue to trickle in.
- Ecotoberfest (Oct. 7 at the Louisville Community Park) was a success with more than 3,000 participants. EV show case participants included Louisville's first all-electric PD vehicle unveiling (a Ford Mach-E), Tesla dealership representatives, Kia, Mini cooper, and National Car Charging.
- Boo! On Briggs will include an EV showcase of four vehicles through the support of Drive Clean Colorado. Saturday Oct. 28 from 3-6 p.m.
- Repairs are scheduled for the vandalized EV charger at The Post Pavilion at Erie Community Park. This is the third event of EV charger vandalism since January 2023.
- We are exploring EV charger opportunities at LAWSC as currently Town EVs are charged via a standard 120-volt outlet.



The above image outlines the total energy used by the Town of Erie ChargePoint EV charging stations since the start of 2023. Apart from May, GHG emissions avoided per month (and EV charger use) have steadily increased in 2023. Since Jan. 1, Town of Erie EV charging stations have used 17.53 MWh of energy, avoiding a total of 12,605 kg of greenhouse gas emissions. 1 kg of carbon dioxide (= GHG) is roughly equivalent to the size of a large beach ball roughly 1 meter in diameter. 12,605 kg would equal the avoidance of 28,979 miles driven in a typical gas emitting vehicle.

Energy:

- [Solar United Neighbors Boulder County Co-op](https://www.solarunitedneighbors.org/co-ops/colorado/boulder-county-solar-co-op/): This roof-top solar bulk purchase campaign is already a huge success. Twelve Erie residents are signed up to participate and over 254 people have signed up from across Boulder County. All Erie residents are welcome to participate, and the installer will be chosen by the Co-op once the RFP process is closed and reviewed. Check out the campaign website and resources here: <https://www.solarunitedneighbors.org/co-ops/colorado/boulder-county-solar-co-op/>.

Xcel Energy:

SAMPLE CASH PURCHASE	5.2kW (100% offset of avg customer)
Average CO solar co-op pricing (\$3.00/Watt)	\$15,600
30% federal income tax credit	-\$4,680
Net Cost	\$10,920
Estimated first year electricity savings	\$839
Estimated 10-year electricity savings	\$8,968
Estimated 25-year electricity savings	\$25,109
Net Profit Simple Payback	\$14,189 12.0 years

Example pricing shown. Modeling assumptions: Xcel Energy customer on RE-TOU rate schedule, 2%/yr electricity price increase per kWh, -0.5% panel degradation per year, 1,506kWh/yr production per 1kW of solar, 7,847kWh/yr annual energy consumption, 6/12 roof pitch, roof-mounted panels, 180 degrees of azimuth.

SAMPLE LOAN PURCHASE RENU loan with 30% down.	5.2kW (\$15,600)	
	10-year 7.24% APR	15-year 7.74% APR
Estimated first year monthly electric savings	\$69.92	\$69.92
Estimated monthly loan payment	\$136.97	\$109.78
Net monthly payment	\$67.05	\$39.86
Net Profit Simple Payback	\$9,297 16.8 years	\$5,973 19.8 years

Example pricing shown. Modeling assumptions: Same as in sample cash purchase example. APR examples taken from one RENU loan provider. Prices do not include incentives besides 30% federal income tax credit.

- Sustainability staff attended the annual [Colorado Green Business Network](#) celebratory event at the Denver Zoo on Sept. 29. Governor Polis was in attendance as 117 new businesses were welcomed into the program, joining 36 already established state participating businesses. The Town of Erie was accepted in 2023 as one of three current

Regional Partners with the Colorado Green Business Network (CGBN), a program of the CDPHE. The previous Erie Green Business Program is no longer accepting participants. Erie's Economic Development and Sustainability Teams are currently training on the state program and will support current EGB participants to the new regional program with the state. Erie is the first municipality to join the CGBN as a regional partner with other regional partners including [Evergreen Sustainability Alliance](#) and the [Yampa Valley Sustainability Alliance](#).

- Energy Efficiency Rebates to date:
 - Increased participation with 12 rebate recipients to date from the program's Aug. 1 launch.
 - Total rebate funding spent: \$6,049.99 (inclusive of 5 level 2 EV chargers, 3 induction stove cooktops, two solar PV, two smart thermostats, two ASHP, one cold climate mini-split, and one heat pump hot water heater).
 - Social medial and utility billing advertising will continue through the end of the year.

Waste, Recycling, & Composting:

- The Recycling Center is scheduled to reopen on Oct. 22 for normal operations. This closure was due to paving at the Wetland Restoration Project.
- Applications continue to be accepted for the PT Waste Diversion Technician that will support weekend operations at the Recycling Center.
- Erie's 2023 Tree Advisory Board and Sustainability Advisory Board sponsored Leaf & Pumpkin Collection Event is Nov. 18 from 9 a.m.-3 p.m. at the Recycling Center. These materials will be continuously collected throughout the fall with special support from volunteers on site.
- The Sustainability Division sponsored the first 20 mattresses at the [September 16th Clean Up Day](#). 38 mattresses were collected in total, a large increase from the eight pieces collected during last May's Clean Up Day event. We are exploring the opportunity to support tire collection at the next spring event.
- [Resource Central](#) will begin advertising a weekly re-use material pickup in Erie. The Town will begin advertising this diversion opportunity in November through the support of Resource Central.

Outreach and Education:

- Sustainability will launch its first sustainability and water conservation focused newsletter on Nov. 1. **If you are interested in receiving this newsletter, please sign up on the Town of Erie Notify Me website under "Sustainability":** <https://www.erieco.gov/list.aspx>.

Water Conservation & Efficiency (as of Oct. 16)

1. [Turf Replacement Rebate Program](#) – another successful year!

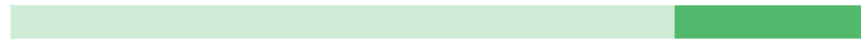
- A. 54 Boulder County participants (in the pipeline or completed): \$60,473.61 spent in rebate funding in Boulder County to date representing 42,126 sq. ft. of total turf conversion.
 - B. 32 Weld County participants (in pipeline or completed): \$33,868.00 in rebates spent and 28,905.75 sq. ft. of landscape conversion to date.
 - C. Total rebate funds in pipeline: \$40,508.39 remaining, with \$94,341.61 in rebate funding spent, leaving \$17,408.39 in the budget if all projects proposed are completed. The deadline for 2023 design submission and participation was Sept. 1 so all 2023 participants are accounted for. Participants still have 5 weeks to complete their projects and necessary reporting.
2. Water efficiency rebates have increased with 136 rebate recipients to date. Total rebate funding spent: \$13,970.89.
 3. Utility billing and sustainability staff continue to work together to send out weekly leak alerts to customers showing leaks on their smart meters.

Trends in EyeOnWater sign-ups and usage.

Accounts with EyeOnWater

22%

Out of 11,984 Accounts



9,318 78%
Without EyeOnWater

2,666 22%
With EyeOnWater

User Count

2,494

EyeOnWater Users

Active in the last 30 days



Active in the last 24 hours



New Sign-ups

149

Sign-ups in Last 6 Months



User Sign-ups Per Month

[View All EyeOnWater Users](#)

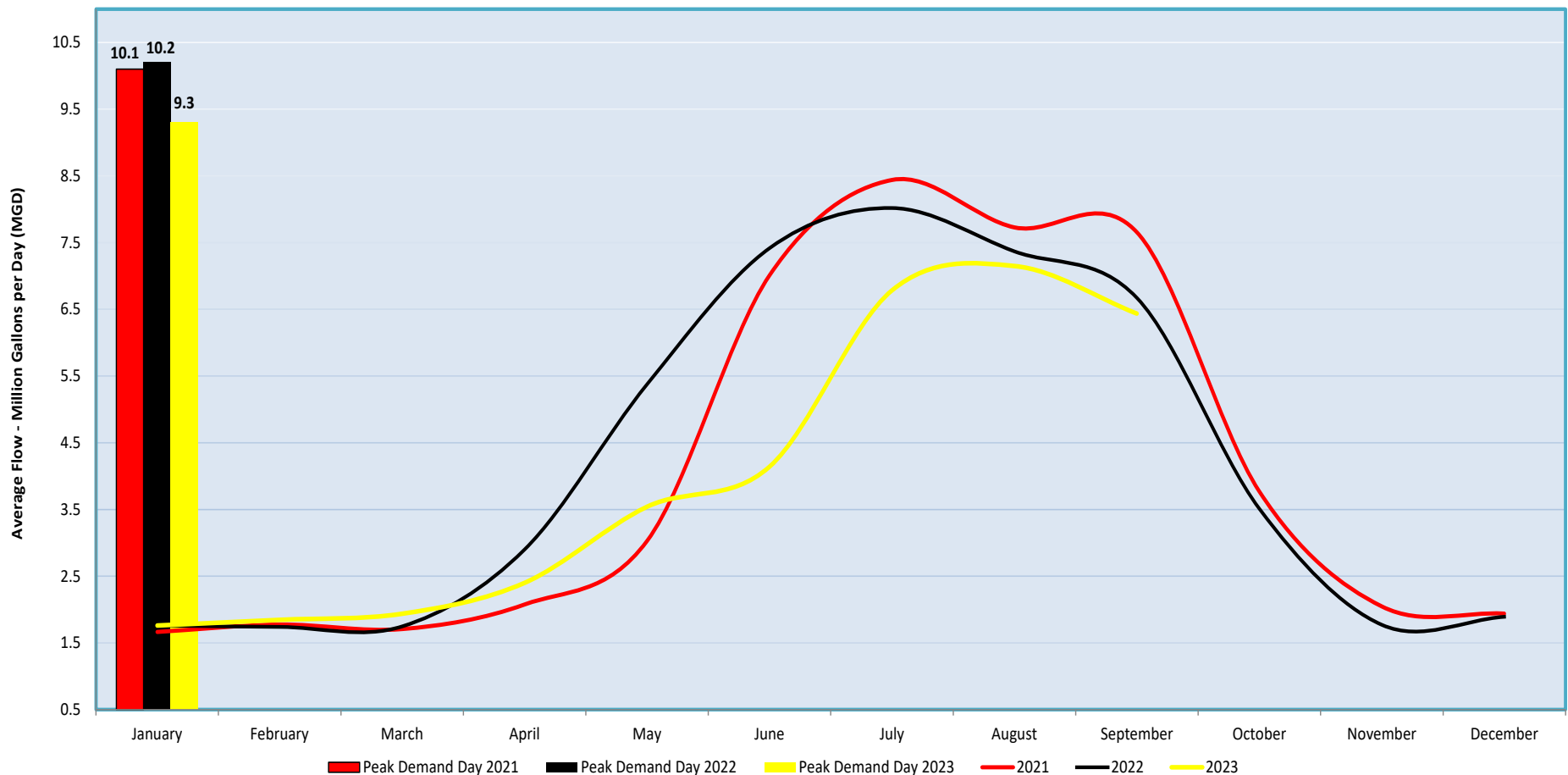
[View Detailed User Analytics](#)

Lynn R. Morgan Water Treatment Facility (WTF)

Average Flow Million Gallons per Day (MGD): **2020** – 4.1 MGD **2021** – 4.3 MGD **2022** – 4.2 MGD

July 2022 set a new record for the peak **daily** production at 10.2 MG. February 2020 had the lowest **monthly** demand at 1.49 MG. As new development comes online with water saving features and smaller landscaped areas, combined with the Town's strong tier pricing and conservation messaging we are seeing water demands reacting appropriately. Overall water demands are down due to wet, cool weather this year. Our peak day this year was lower than even 2020. Typically, peak-day increases 0.5 MG each year.

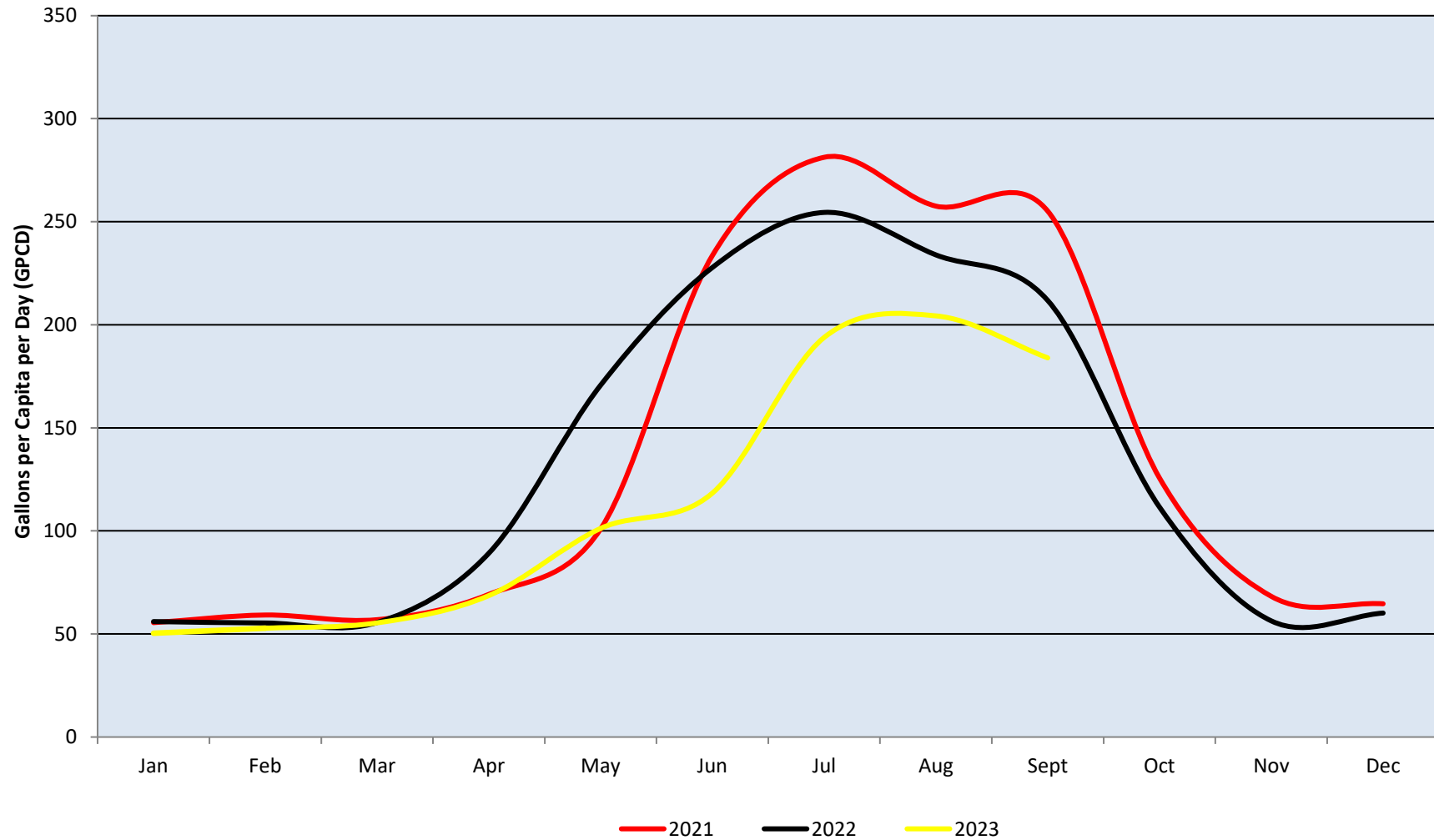
Average Monthly Production



Average Per Capita per Day (GPCD): **2020** – 143 GPCD **2021** – 136 GPCD **2022** – 132 GPCD

July 2020 had the highest average daily usage at 294 gallons GPCD. January 2023 had the lowest usage since 2019 at 50 GPCD. Indoor demands during winter remain relatively stable. Drought messaging, along with wetter conditions, seems to be helping curb excessive use. Reducing summer irrigation and increasing reuse water availability will reduce reliance on treated water supplies in the future. Outdoor irrigation amounts to roughly 40% of annual deliveries, the shift in demand is notable.

Average Daily Usage Per Capita

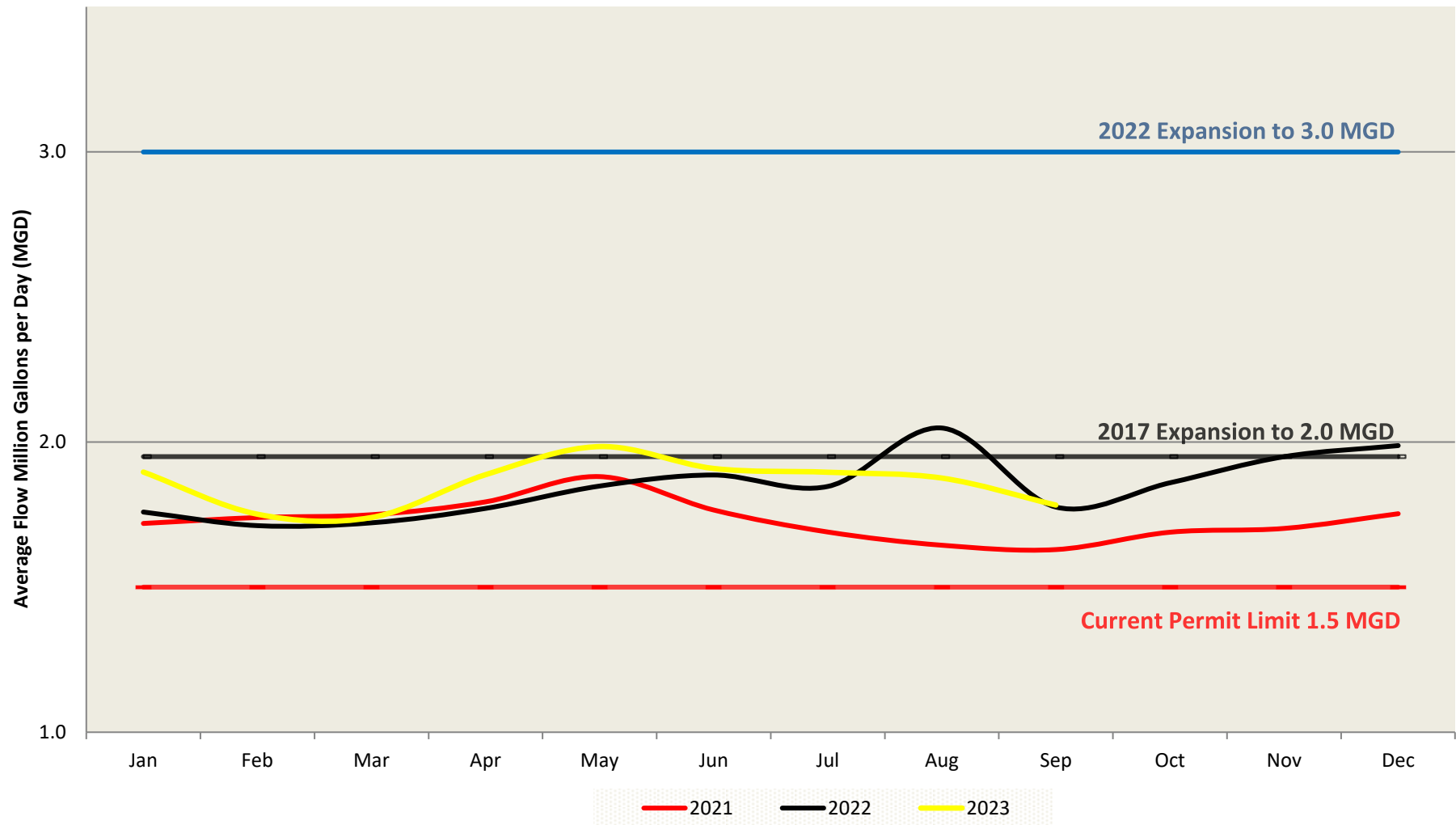


North Water Reclamation Facility

Average Flow MGD: **2020** - 1.66 MGD **2021** - 1.73 MGD **2022** - 1.85 MGD

January 2020 had the lowest average flow of 1.53 million gallons per day (MGD). August 2022 set a high average monthly flow of 2.05 MGD, likely due to microburst rainstorms that month.

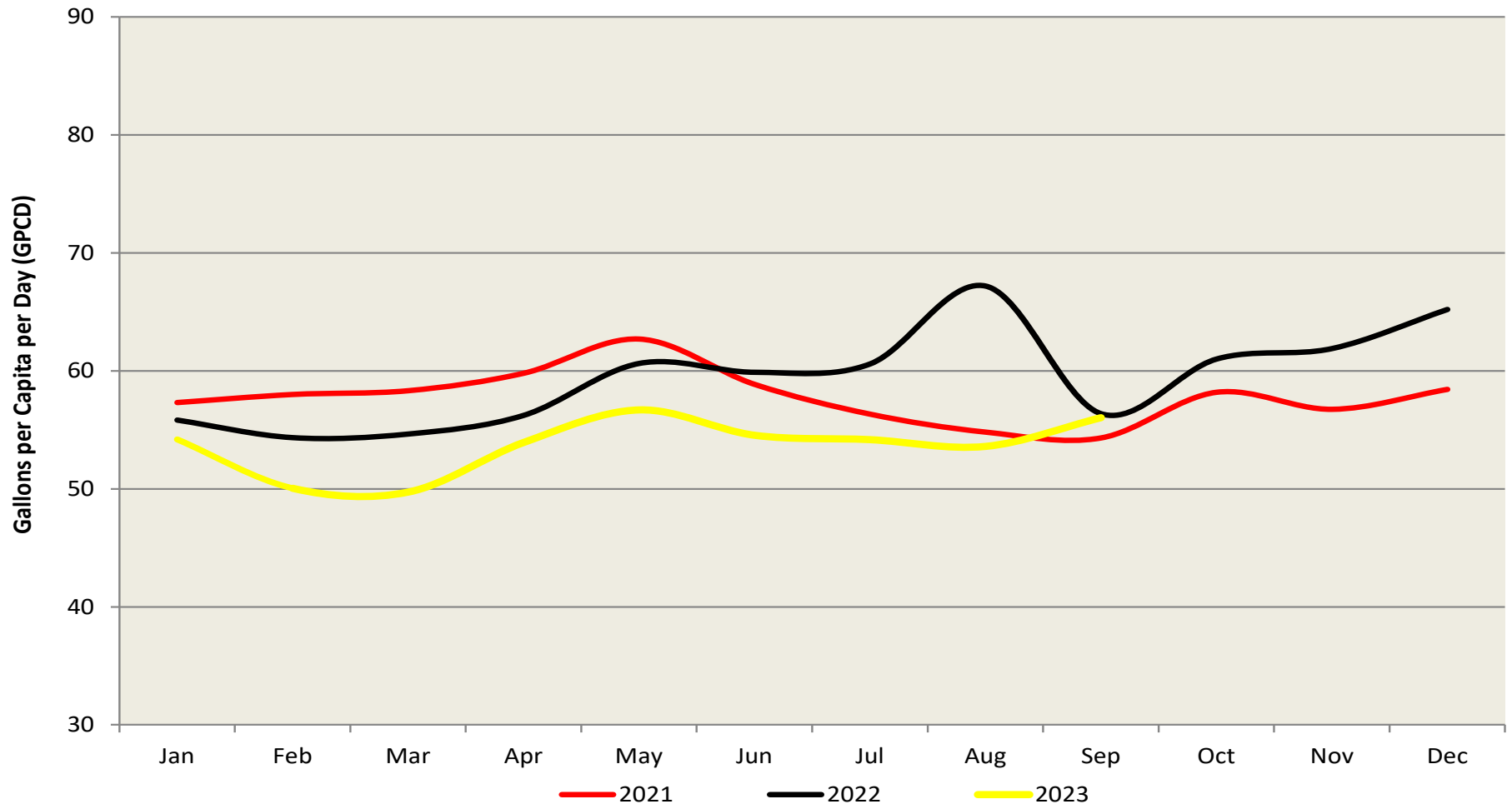
Average Monthly Flows



Annual Gallons Per Capita per Day (GPCD): **2020** - 58 GPCD **2021** - 58 GPCD **2022** - 59 GPCD

This graph depicts customer indoor water usage. August 2022 had the highest usage at 67 GPCD, again due to intense rain. February 2023 had the lowest usage at 50 GPCD. Fall, with relatively little precipitation and dropping groundwater levels, is typically a good indicator of true daily flows. Even with inflows due to excessive precipitation, indoor water usage continues to drop due to new construction and water saving features as well as a relatively new and non-leaking sewer system.

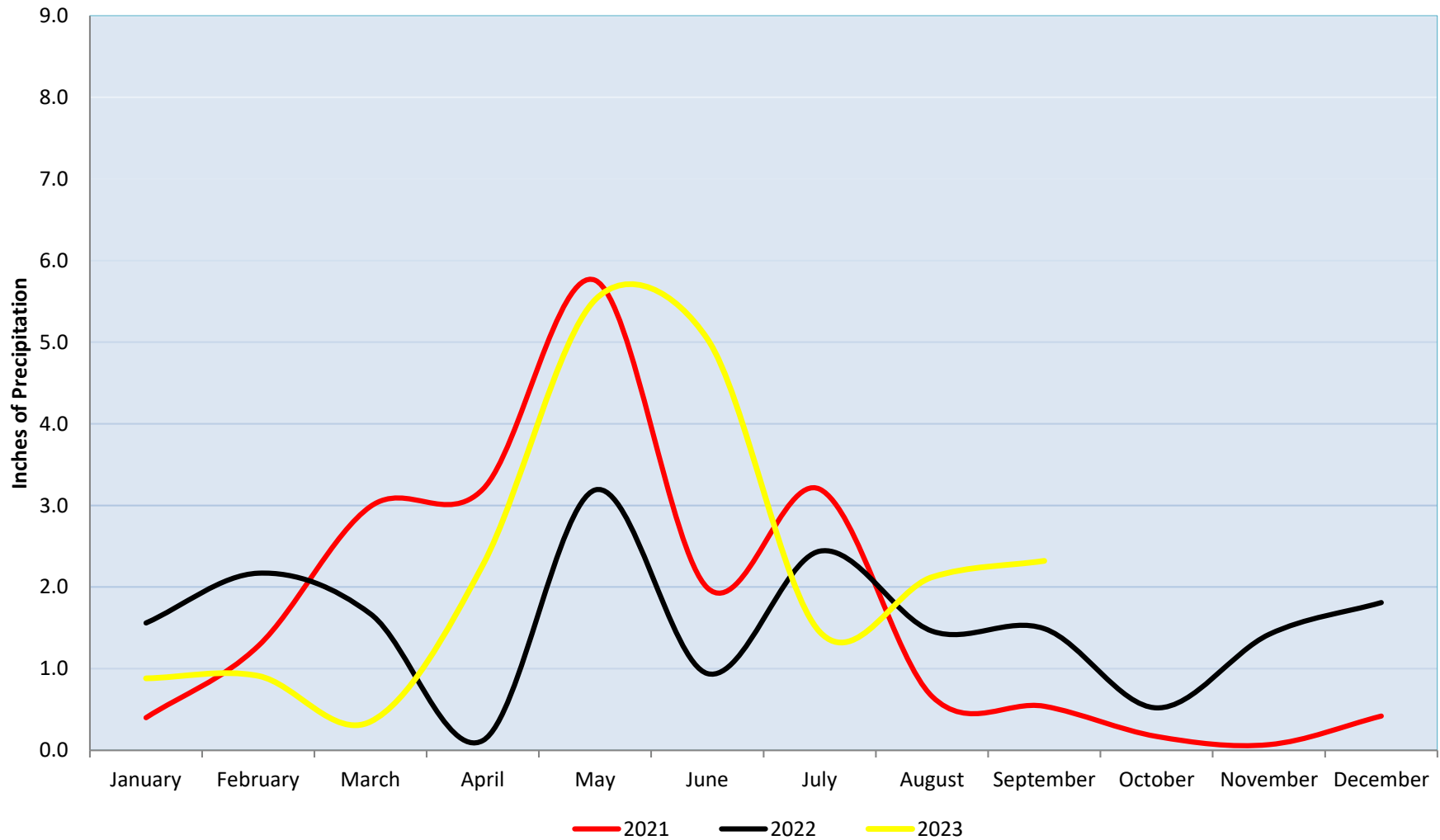
Average Daily Usage Per Capita



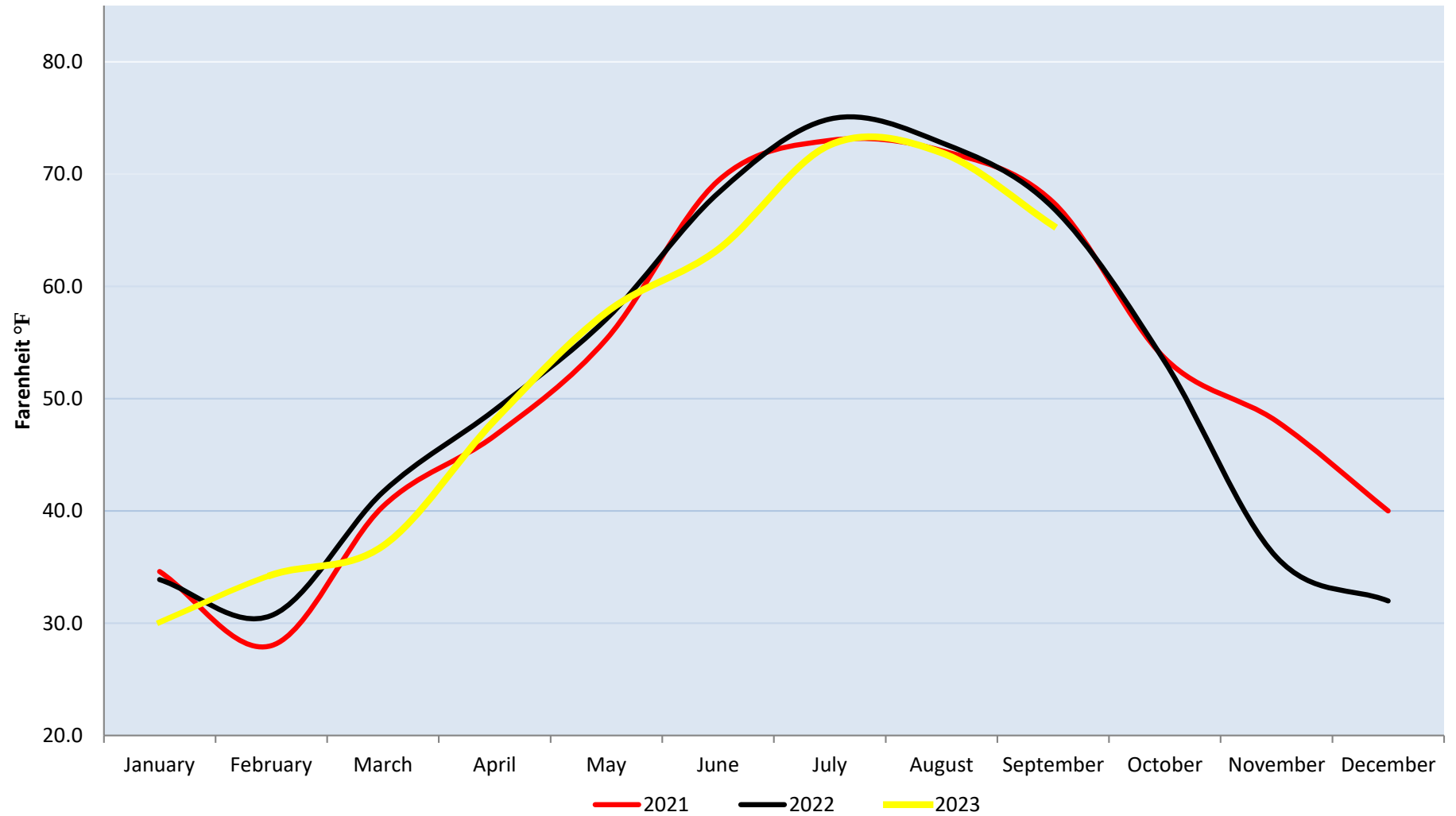
Monthly Data for Boulder – National Oceanic and Atmospheric Administration (NOAA) & Natural Resource Conservation Service (NRCS)

NOAA is predicting 33–40% below normal precipitation and 50–60% above normal temperatures again into late October. This years odd precipitation is on display in the graph below.

Precipitation



Mean Temperature



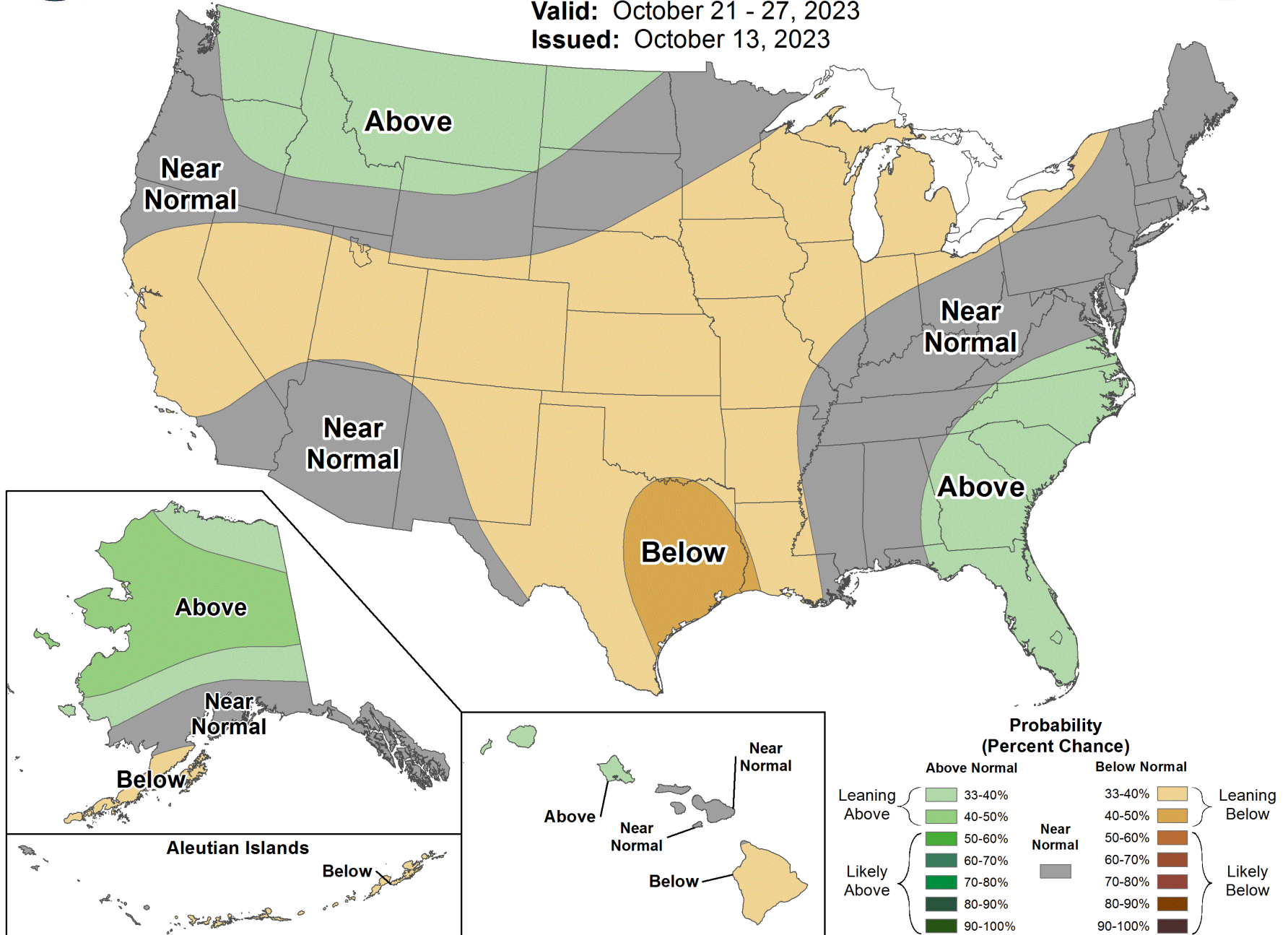


8-14 Day Precipitation Outlook



Valid: October 21 - 27, 2023

Issued: October 13, 2023

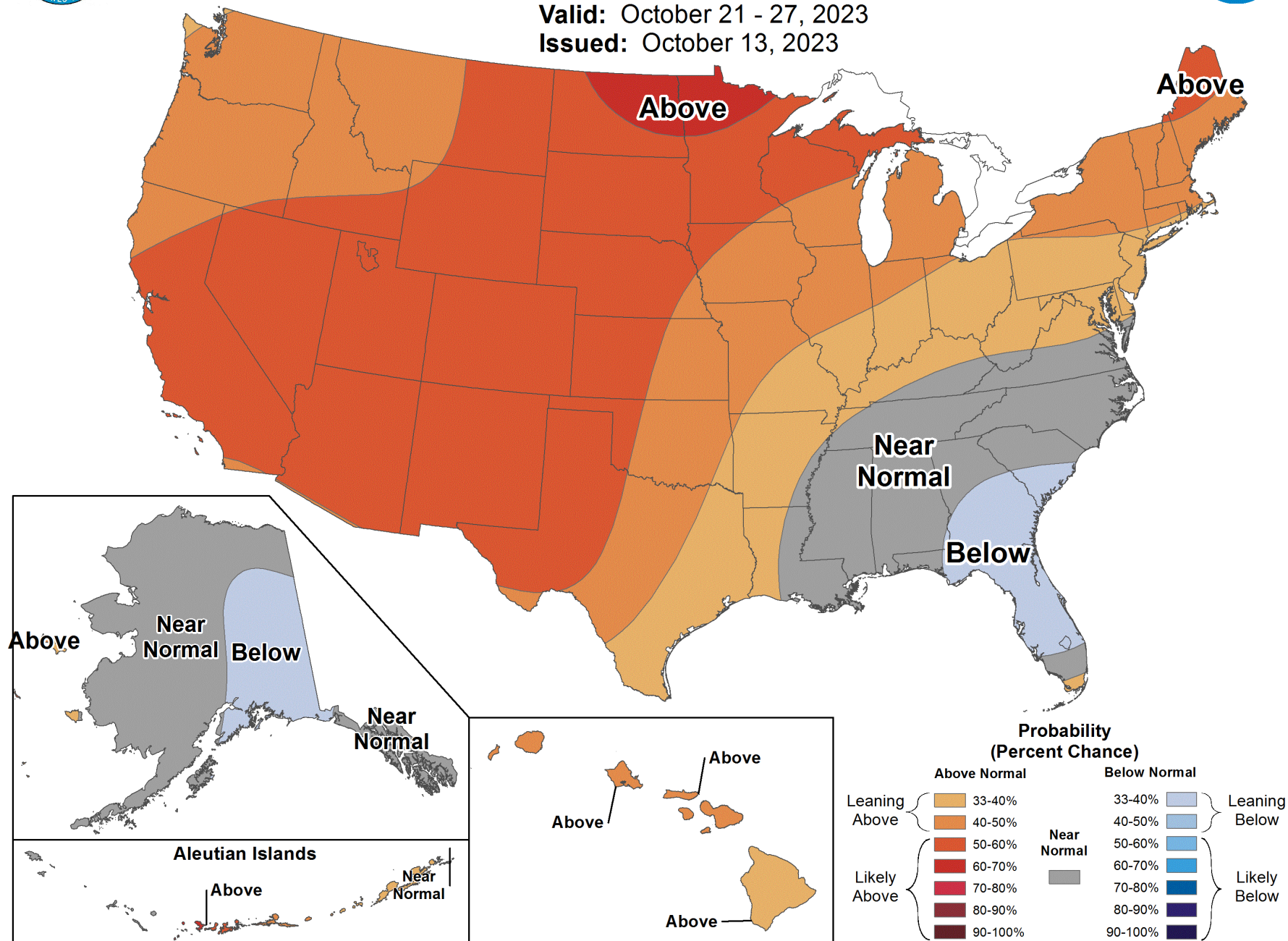




8-14 Day Temperature Outlook

Valid: October 21 - 27, 2023

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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	Referral Review
Erie Highlands Filing 18 FP	Residential - 124 townhome units	On Hold
Old Town - Main Street Subdivision - FP	Residential Lots	Referral Review
Lafferty Farm FP	127 Residential Lots	Referral Review
Ranchwood Town Center MS/SP	Residential Mix of Townhomes and Apartments – 288 Units	Referral Review
Colliers Hill Filing 6 – FP	Residential - 452 Single Family Units	Referral Review
Old Town - Erie Junction - FP	Residential - 10 duplex buildings/1 tri-plex building	Referral Review
Redtail Ranch PP	Residential - 546 lots	Referral Review
Erie Village Filing 5 – MS/SP	Mixed use development, 38 Townhomes, 32 Single Family Residential, 30,000 sq. ft office/retail	Referral Review
Spring Hill PP	Residential Development	Referral Review
Erie Indoor Sports – FP	SE Corner of CLR and Bonnell	PP – BOT Scheduled; FP – Referral Review
Westerly PP 3	Residential - 276 units - Single Family/Paired Homes/Townhomes	Referral Review
Westerly Filing 3 FP	Residential 228 Lots	Referral Review
Canyon Creek Filing 7 FP	106 Single Family Units	Referral Review
Canyon Creek Filing 8 FP	88 Paired Homes	Referral Review
Erie Highlands Commercial	Commercial Plat	On Hold
Vista Ridge Filing 14, Lot 9	Children's Eye Physician	Referral Review
Four Corners – Antelo Apartments	Apartments – 202 Units	Referral Review
Nine Mile Corner – Chase Bank – Lot 9	Site Plan	Referral Review
Nine Mile Corner- Chic-fil-a	Site Plan	Referral Review
Summerfield FP 1	446 Residential Lots	Final Plat Approved; Finalizing Engineering Design
North Westerly	Annexation/Initial Zoning/Pre-DA	Annexation and Pre-

		DA Approved
Summerfield PP 2	Residential	Referral Review
Parkdale Filing 5 FP	Residential	Referral Review
Vista Ridge – Little Sunshine Playhouse Preschool – SP		Referral Review
Vista Ridge – Bellco Credit Union – SP		Referral Review
Four Corners Commercial Corner – SP/FP	Commercial Corner Development	Referral Review
Vista Ridge F14 – Valvoline	Site Plan	Referral Review
Vista Ridge – Dutch Bros SP	Site Plan	Referral Review
North Westerly – Annexation and Initial Zoning	Residential and Commercial Development	Referral Review
111 th & Arapahoe	Annexation and Zoning	Referral Review

Development Construction Projects Status

Project	Status
BV PK-8 School	In Acceptance Process
Compass Filing 3	In Final Acceptance Process
Compass Filing 4	In Final Acceptance Process
Flatiron Meadows Filing 12	In Final Acceptance Process
Flatiron Meadows Filing 13	In Warranty
111th Waterline Extension	In Warranty
Four Corners	Under Construction
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 Warranty
Nine Mile Lot 3 Shops	In Warranty
Parkdale Fil 1&2	Under Construction
Parkdale Fil 3	Under Construction
Parkdale Amenity Center	Scheduling Pre-Construction Meeting
Wild Rose	In Warranty

Erie Highlands Filing 14 & 15	In Warranty
Erie Highlands Filing 16	In Warranty
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 4H	Under Construction
Colliers Hill 4I	Under Construction
Colliers Hill 5	In Warranty
Erie Commons Filing 4 - 3rd Amend. Townhomes	In Final Acceptance Process
Erie Commons Filing 4 - 4th Amend. Commercial Plat	In Warranty
Erie Commons Filing 4 - 5th Amend. Wee Cottages	In Warranty
Erie Commons Filing 4 - Circle K	In Initial Acceptance Process
Erie Commons Filing 4 - Ziggy's Coffee	Under Construction
Erie Commons Filing 4 - Premier Members Credit Union	In Warranty
Sunset	Under Construction
Westerly Filing 1	In Warranty
Westerly Filing 2	Under Construction
Westerly Zone 4 Waterline	Scheduling Pre-Construction Meeting
Westerly Amenity Center	Under Construction
Morgan Hill Filing 2	In Warranty
Morgan Hill Metro District 2 Improvements	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	In Warranty
Rex Ranch Filing 2	In Warranty

Rex Ranch Filing 3	In Warranty
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
Coal Creek Center - Eye Care Center	In Warranty

Capital Improvement Projects

Project	Status
Traffic Signal Communication Project	Implementation and Training Underway
Weld County Road 7 and Erie Parkway Signal	In Acceptance Process
Coal Creek Reach 1 - 3 Improvements	Pre-construction meeting upcoming
Zone 2 Waterline Improvements	Tank site and easement negotiation underway with Southern Land.
Zone 2 Tank Site and Tank Design	Tank site and easement negotiation underway with Southern Land.
Horizontal Directional Drilling Well Project	Discussions with the Bond Company/Surety Underway
North Water Reclamation Facility Expansion	Complete – Working on punchlist
Zone 3 - Phase 2B and Zone 4 Waterline Extension	Under Construction; WCR 4 Closed; Expecting paving late Sept/early Oct, Experiencing weather delays. Zone 3/Zone 4 testing ongoing.
County Line Road Improvements - Telleen to Evans	Coordinating with CDOT on Easements and coordinating with Xcel on power burial and street light placement.
County Line Road Improvements - Telleen to Austin	Working toward 50% design for North and South Phase
Old Town Connection to Colliers Hill	Study Session held in September for iconic bridge design consideration
IGA with Colliers Hill - WCR 5 Widening/Re-Use Line Ext.	Improvements Undergoing Punch List identification and corrections;
Town Center Roundabouts - Design and Construction	North Roundabout in Land Coordination / South Roundabout – 50% design review
Water Quality Pond - Lagoon Conversion	Boardwalk, shade shelter, and storm structures under construction
Mobile Bypass Pumping Station	Acquisition Underway; Anticipated delivery in fourth quarter of 2023
119th and Erie Parkway Roundabout Improvement	Scheduled for BOT meeting for construction contract

111th and Arapahoe Intersection Improvements	IGA Approved with Lafayette; Design underway; Signal timing corridor plan being developed.
Boulder Creek Streambed Stabilization	Construction completed; Working on restoration work and planting
Pipe South Boulder Canyon Ditch along 119th	Design complete; In Easement Negotiation
Re-Use High Zone Pump Station	Pumps installed; New parts to be delivered based on initial testing; Coordinating with development for future testing
Vista Ridge Detention Pond Modifications	In Design
Neighborhood Speed Mitigation Program	Focus Group meetings starting in September
Red Hawk Elementary School Traffic Study	Operations and Maintenance working on install; Engineering and Planning to Pursue Safe Routes to School Grant for additional work
Filly Lake Well Pump Station and Pipeline Project	In design.
North Water Treatment Plant	In Design
Sheridan and Ridgeview Signal Warrant Analysis	RFPs from on-call received; will move forward with selected on-call consultant
Zone 3 Water Tank	Town will begin alternatives analysis in late 2023
Water Quality Pond and Irrigation Pond Repairs	Engineering and Operations and Maintenance Coordinating on repairs.
Transportation Standards and Specifications Update	TAC meeting #1 scheduled
NW Regional Drainage Evaluation	In Coordination with Frederick on IGA

Projects in Support of other Departments

Transportation Department Development

Neighborhood Speed Mitigation Program (NSMP)

Central Square Software Implementation – Under Development

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

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

I-25 Gateway Planning

Streets, Transportation & General Updates

Snapshot of Upcoming Major Streets Projects 2023

Sheridan Reconstruction from Ridgeview to CR4 – Complete
Mill and overlays on 119th, County Line Road and Kenosha – Underway through fall
Closures of CR4 between CR5 and Bonanza for Water Pipeline – CR 4 Open
County Line Road between Telleen and Cheeseman for Safer Mainstreets Project – Xcel Undergrounding - Upcoming
CR5 Partial Closures related to Sunset Development and Widening - Upcoming

Other Significant Projects

SH7 & 119th Intersection Improvements – Lafayette/CDOT
SH7 Preliminary Corridor Design – CDOT
US287 Bus Rapid Transit – Phase 2 – Mobility and Safety
SH 52 & I-25 Mobility Hubs
SH7 Bike Treatment Plan
111th and Arapahoe Improvements (w/Lafayette)

