

# Erie North Water Treatment Facility Project

TOWN OF ERIE, CO





#### Treatment Capacity:

- 6.6 MGD (2 more phases to 20.4+ MGD)
- Equiv. population < 65,000 for Phase 1</li>
- Uses new & reusable water sources
- Raw water storage reservoir
- Deep well injection

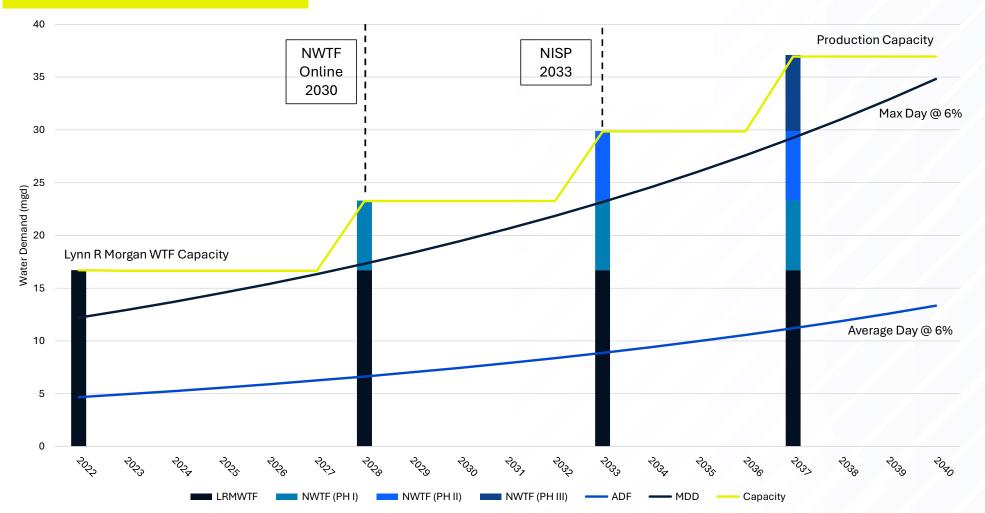
#### • Objectives:

- Meet planned water demand
- Redundant WTF
- Resiliency for drought, wildfire, summer irrigation, water quality
- Diversified water supplies

#### Zone 2 Tank and Pump Station

- Increased storage capacity (high demand, firefighting)
- Distribution hub from the NWTF
- Reduce peak hour pumping







#### Town's Goals

- Customer satisfaction
- Match existing finished water
- TDS reduction
- Corrosion control (pH and alkalinity)
- Iron & manganese reduction
- Taste & odor management
- State/Federal Regulations
  - Turbidity
  - Total Organic Carbon (TOC) removal
  - Cryptosporidum, Giardia, and Virus inactivation
  - PFAS removal





- Drought resiliency for 30 days of low flows
- Water quality buffer
- Blending of sources
- Pre-sedimentation
- Operational flexibility

### • 30% Design Only

- On-going negotiations with partners upstream in Boulder Creek
- Land not owned by Town
- Subsurface investigation





#### GAC Adsorption Vessels

- RO bypass treated by GAC
- Re-activated or virgin coal
- Sized for contact time

#### Target Compounds

- Taste & odor
- PFAS
- Organic carbons
- Disinfection by-products



### Why CMAR?

- Schedule compression
- · Cost certainty
- · Refocus internal resources/less oversight required
- · All downstream subcontracts competitively bid

- Owner chooses level of involvement
- One project contact/one contract
- · Ability to introduce new vendors/subcontracts
- Ability to introduce new best practices

























Item		Class V OPC	
Land Acquisition		N/A	
Boulder Creek Diversion		N/A	
Horiztonal Wells		N/A	
Filly Lake Pump Station		N/A	
Zone 2 Transmission Main		N/A	
Zone 2 Tank and Pump Station		N/A	
Raw Water Reservoir		\$	21,000,000
Raw Water Pump Station		\$	5,600,000
Treatment Building		\$	60,300,000
Disinfection Contact Basin		\$	6,900,000
Residuals Handling Facility		\$	8,800,000
Deep Well Injection (2 Wells)		\$	14,400,000
Yard Piping		\$	5,500,000
Site Finishes		\$	2,800,000
Direct Costs		\$	125,300,000
General Conditions, Bonds & Insurance	14%	\$	17,000,000
Sub Total		\$	142,300,000
Contingencies	25%	\$	35,600,000
Total Construction Cost		\$	177,900,000
Contractor Overhead and Profit	10%	\$	17,790,000
Total Cost		\$	195,700,000
Conceptual Design	0.3%	\$	659,050
Engineering, Pilot Planning, Permit Assist	3.6%	\$	6,996,12
Total Project Cost		\$	203,400,000





## Thank You