



Overview and Update

**HALLIGAN WATER
SUPPLY PROJECT**

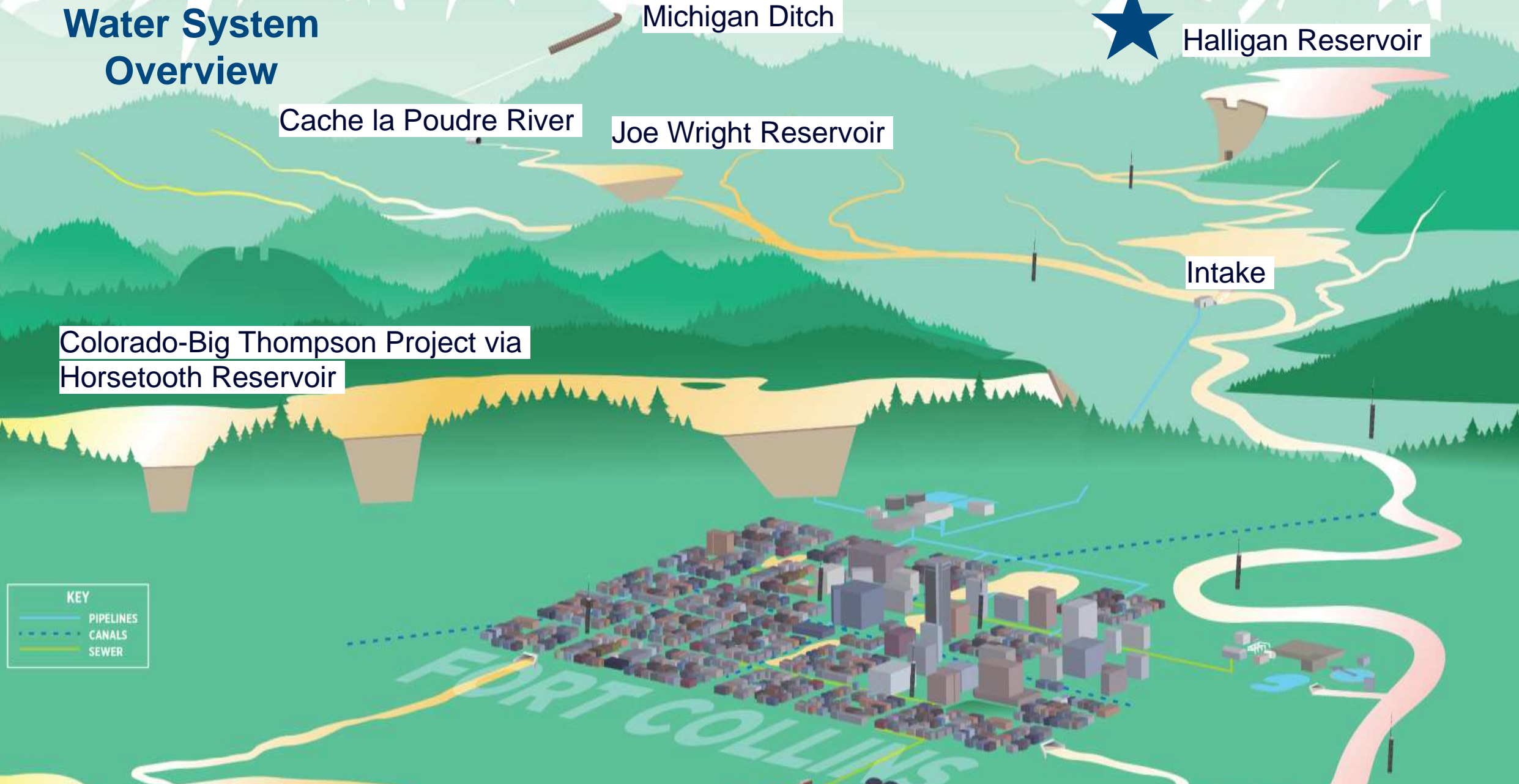
Tyler Marr

Deputy City Manager

Darren Parkin

Halligan Water Supply Project Manager

Fort Collins Utilities' Water System Overview



Michigan Ditch



Halligan Reservoir

Cache la Poudre River

Joe Wright Reservoir

Intake

Colorado-Big Thompson Project via
Horsetooth Reservoir

KEY

- PIPELINES
- - - CANALS
- SEWER

FORT COLLINS

Halligan Water Supply Project Purpose



What?

- Enlarge existing reservoir by building a replacement dam.
- Stored water would serve Utilities' service area's residents and businesses.

Why?

- Provide water to current and future customers.
- Increase reliability and resiliency of our water supply, especially in times of prolonged drought and climate change uncertainties.
- Gain storage to capture the water rights we own.



Supply

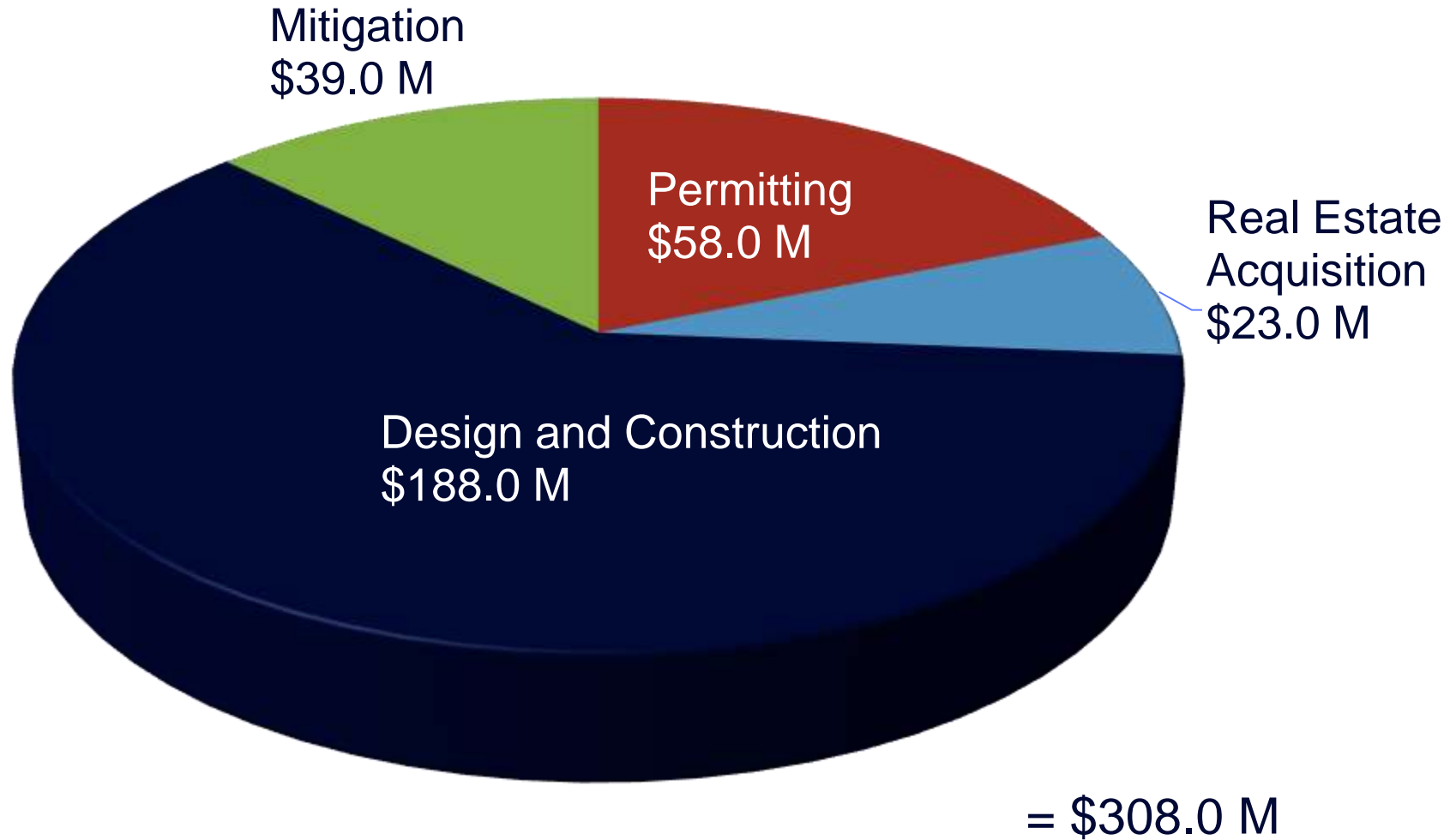
- Ensuring an adequate, safe and reliable supply of water for beneficial use.
- Water rights primarily from Horsetooth Reservoir (Colorado River) and Cache la Poudre River.
- **Water supply storage:** Horsetooth, Joe Wright and Halligan enlargement (proposed)
 - Benefits: saves water for when you need it
 - Limitations: inadequate storage currently.
 - Challenges: climate change, drought and scarcity, value/cost, adequate supply.



Demand

- Managing the level of demand and efficient use of a scarce and valuable resource.
- Predicting what customers will use.
- **Conservation and efficiency:** programs, City code
 - Benefits: use less water, lower water bills.
 - Limitations: conservation helps flatten the curve when demand is high but without a place to hold water, it won't be there when you need it.
 - Challenge: growing population.

Current Total Cost Estimate





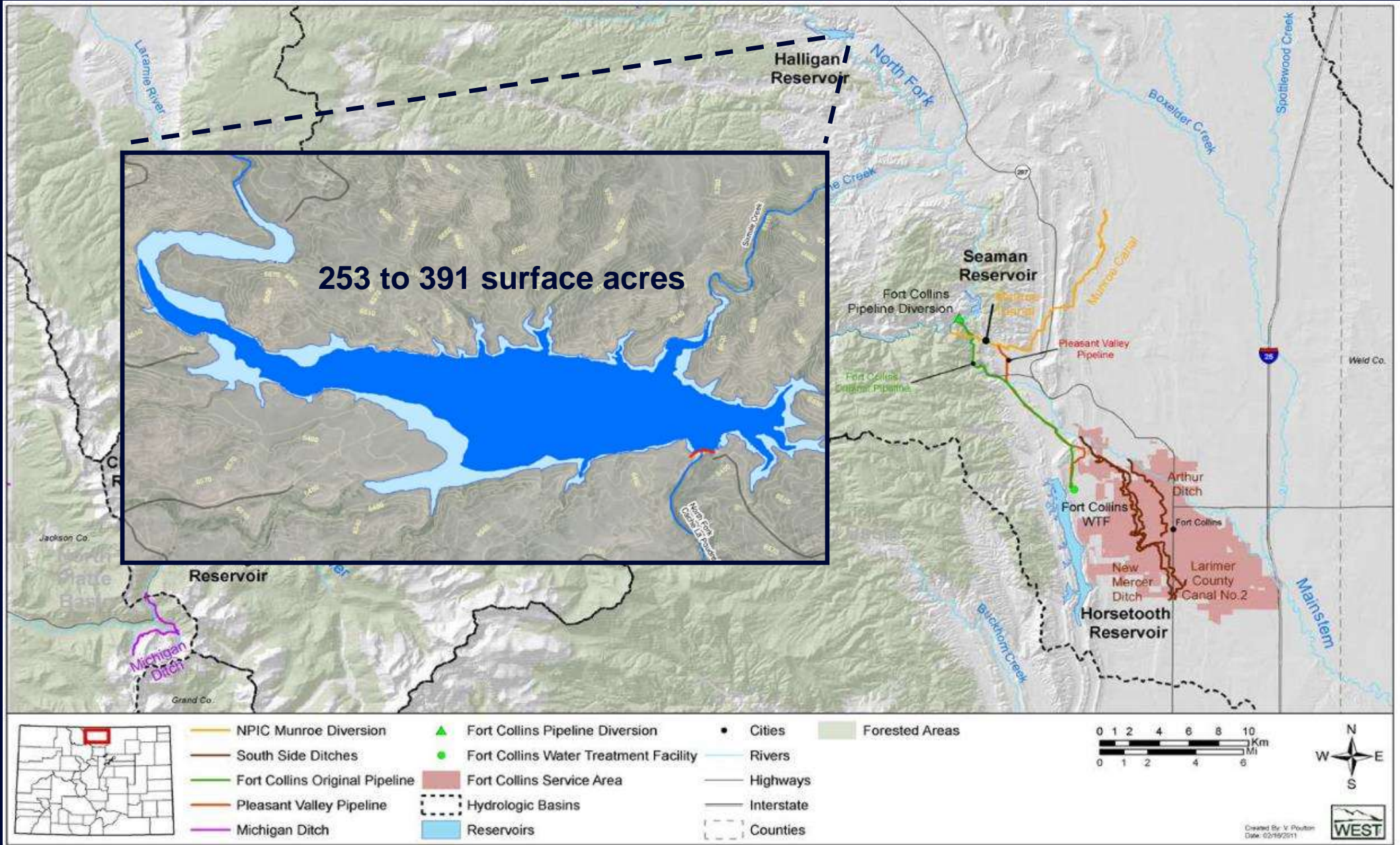
Existing dam

- 78' high, 350' length, 8-foot crest width
- Two 34" outlet pipes
- 12,000 cubic feet per second (CFS) spillway capacity
- Cyclopean masonry and slip form concrete

New dam

- 144.5' high, 1,000' length, 26-foot crest width
- One 42" outlet and one 24" outlet
- 104,000 CFS spillway capacity
- Roller Compacted Concrete (RCC) construction
- Water surface elevation only increases by 26 feet

Halligan Reservoir Enlargement



Project Timeline

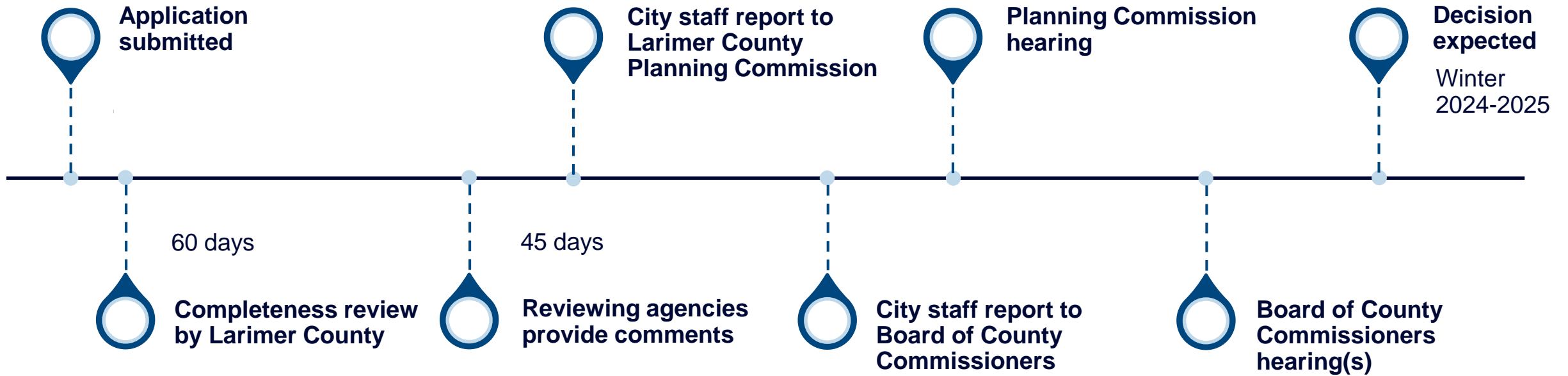


Larimer County 1041 Permit

- Colorado law authorizes local jurisdictions to identify, designate, and regulate areas and activities of State interest through this local permitting process.
- Public comment period.
- Application encompasses all aspects of the project.
- Halligan will not go through the City of Fort Collins' 1041 process.



Larimer County 1041 Timeline





- What questions do Councilmembers have about the Halligan Water Supply Project?
- What questions do Councilmembers have on the Larimer County 1041 Permit process?



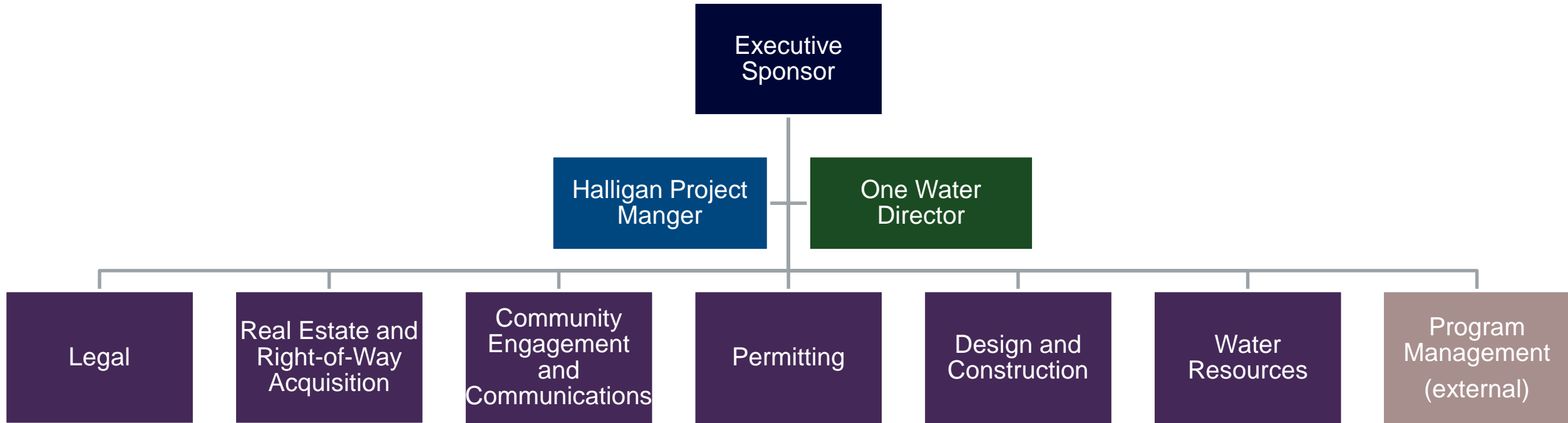
Questions?

fcgov.com/Halligan



Backup Slides

Organizational Structure





Design

- 60% design
 - CSU Hydraulics Lab
 - Operations
- Gateway fish passage
- Access roads
- North Fork crossing
- Canal diversion



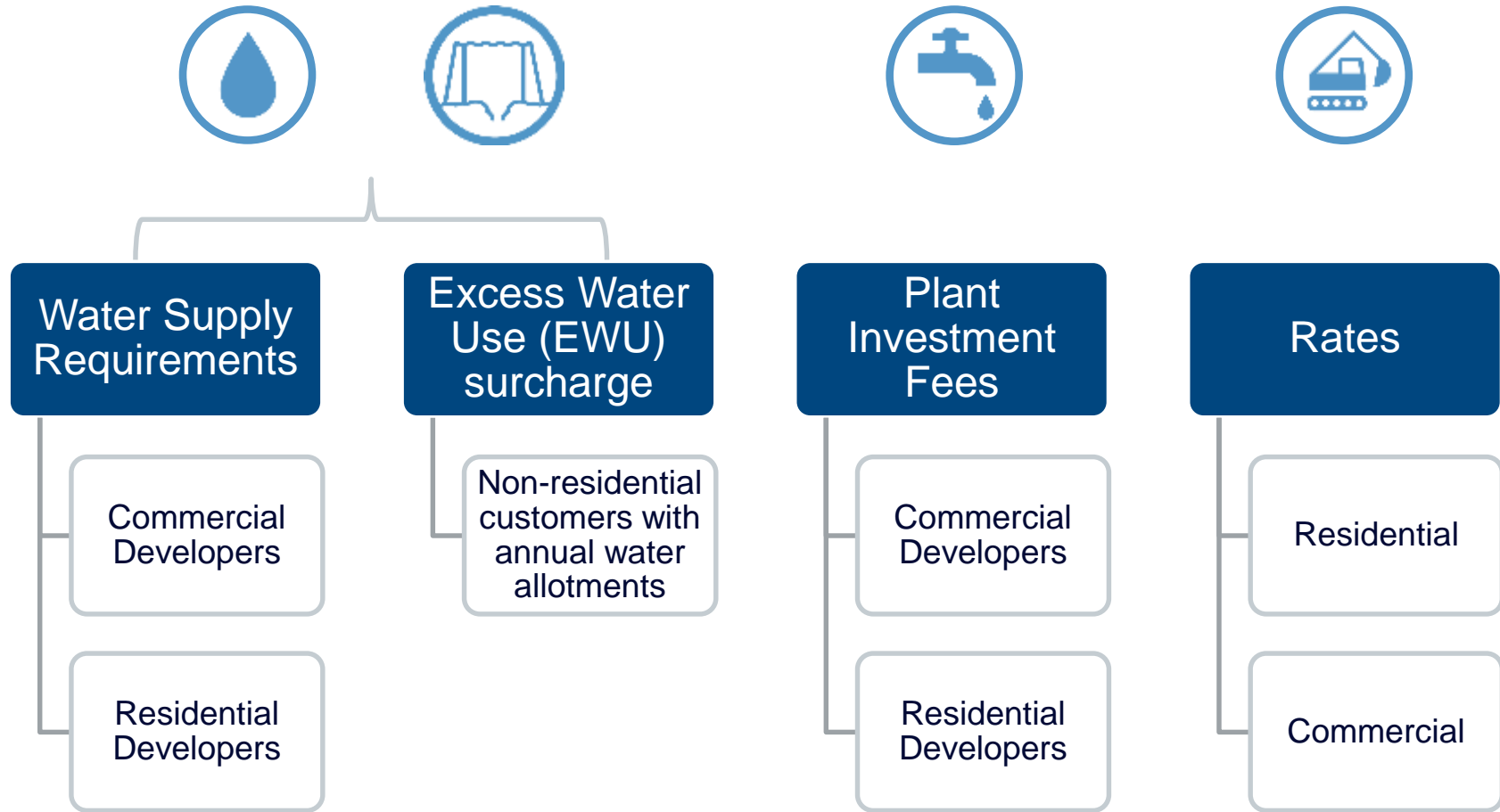
Planning

- Master schedule
- Budget and funding
- Construction delivery model
- North Poudre Irrigation Company Operational Agreements
- Access easements



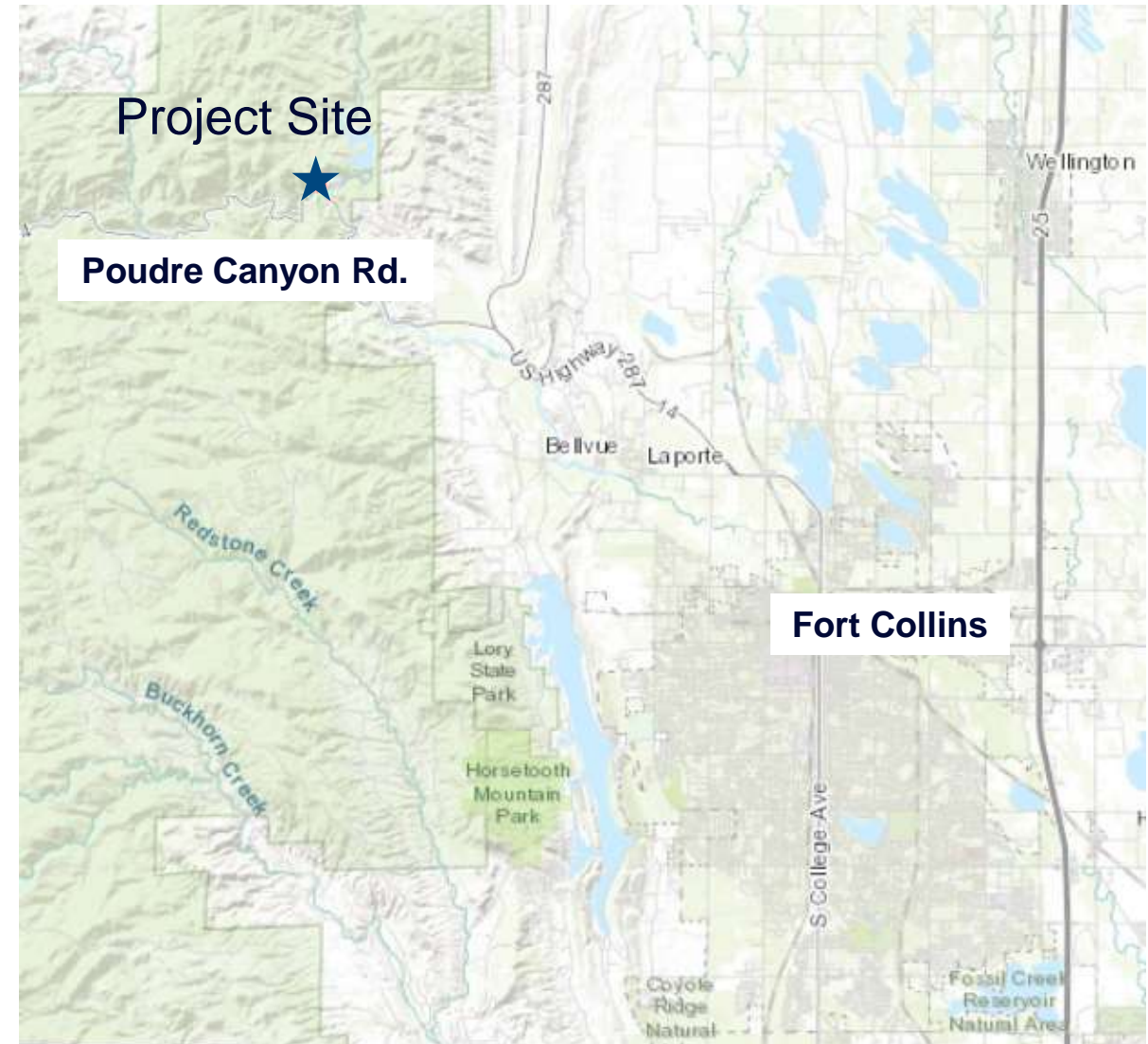
Permitting and Supplemental Activities

- Larimer County 1041
- 401 Water Quality Certification
- Cultural resources and Tribal consultation
- North Fork mitigation bank – stream and wetland credits
- Environmental mitigation



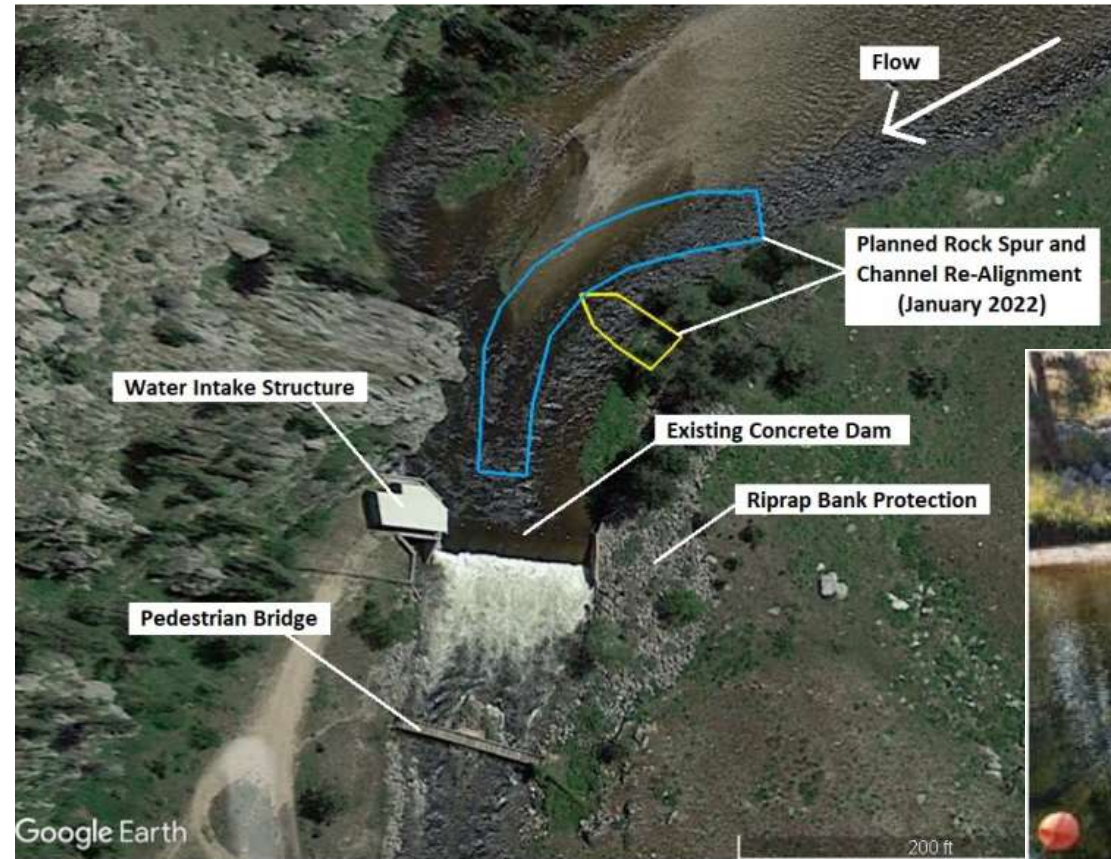
Fish Passage at the Fort Collins Intake at Gateway Park

- Increase connectivity for trout, other large-bodied fish on the Main Stem of the Cache la Poudre River.
 - Diversion structure currently acts as a barrier to fish movement, preventing migration.
- Compensate for impacts to the Main Stem fisheries associated with flow change from the Halligan Project.

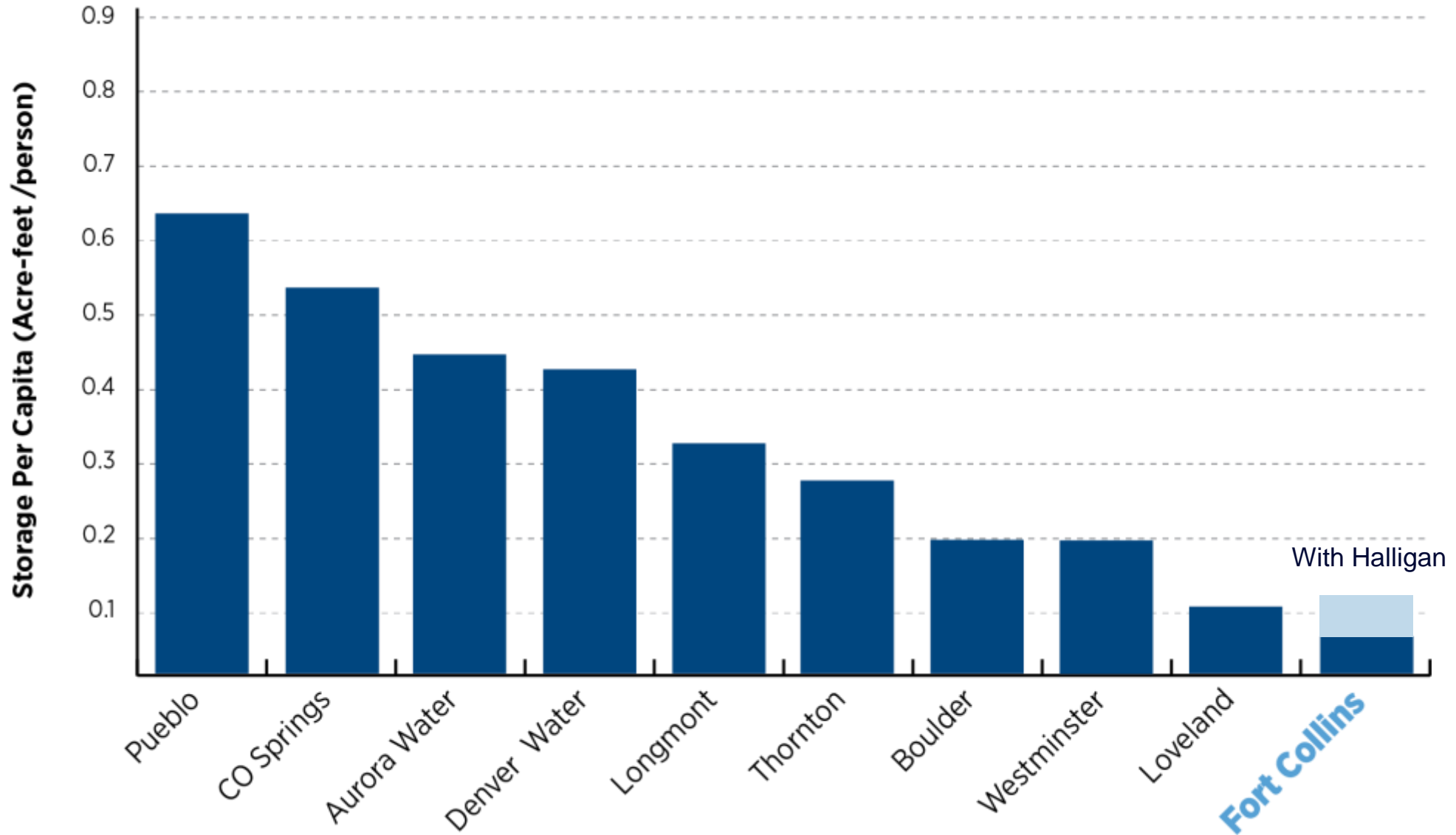


Passage Design

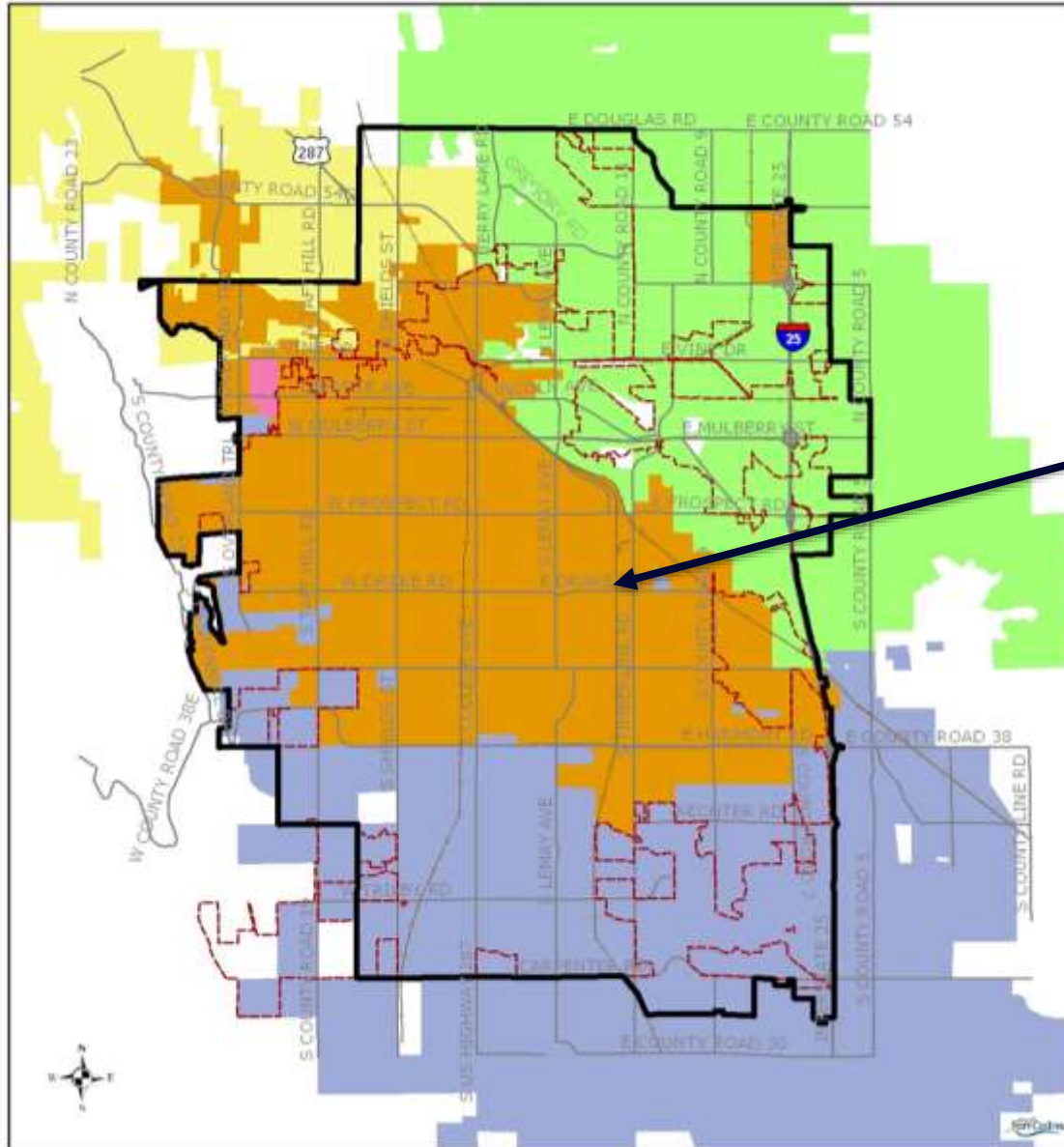
- Provide reliable upstream fish passage and additional connectivity upstream of the intake.
- The City will consult with Colorado Parks and Wildlife.



Storage Available to Provider



Fort Collins Area Water Districts Map

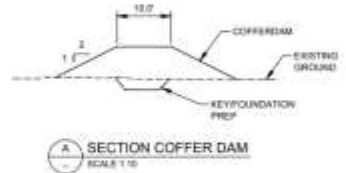
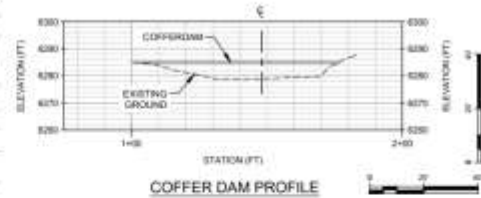
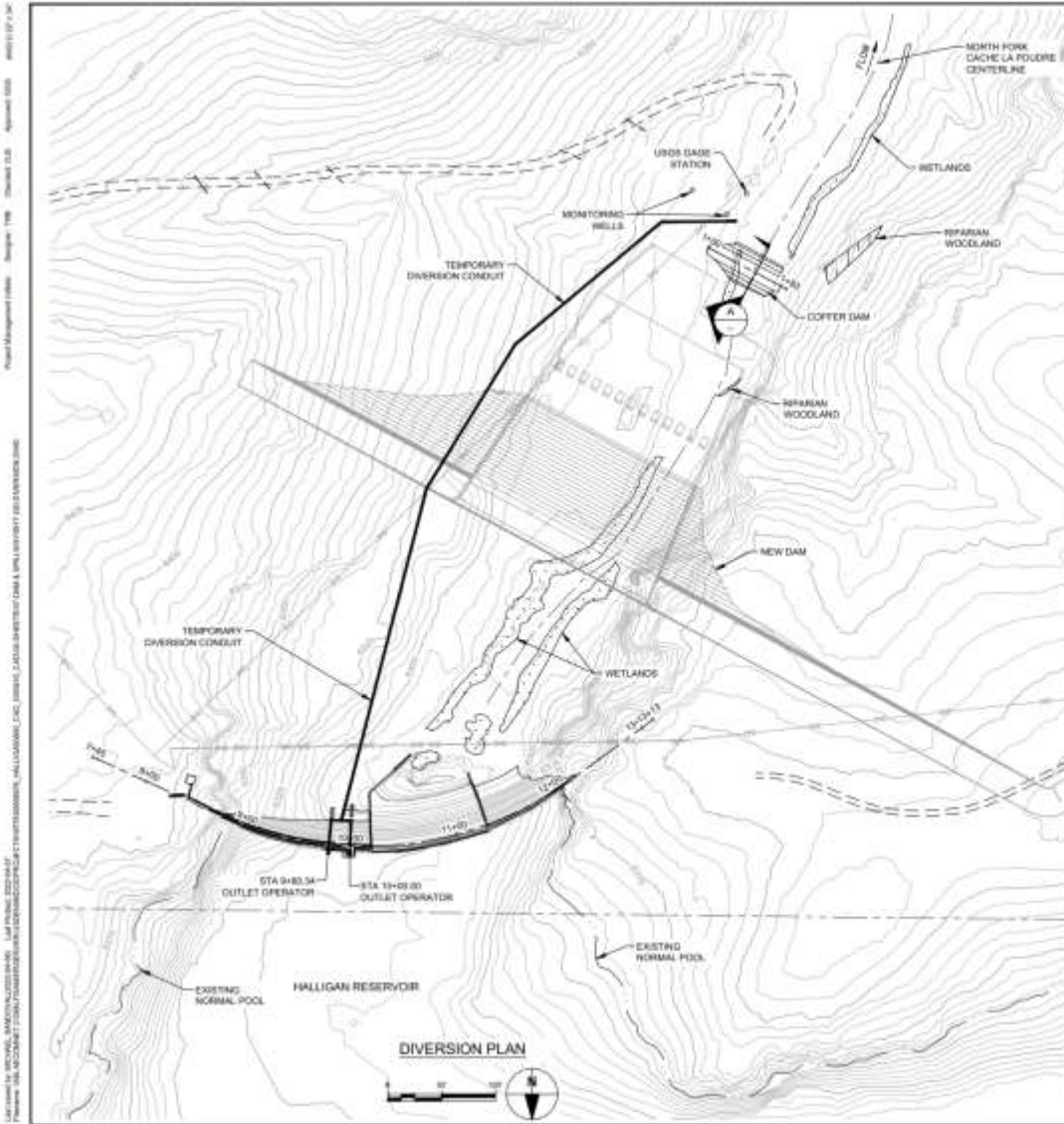


Utilities Water Service Area

- GMA
- Major Streets
- City Limits
- Railroad

Water Districts

- ELCO Water District
- Fort Collins Loveland Water District
- Fort Collins Utilities (Water)
- Sunset Water District
- West Fort Collins Water District



AECOM

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PROFESSIONAL ENGINEER
NOT FOR CONSTRUCTION

ISSUE REVISION

NO.	DATE	DESCRIPTION

NO NUMBER
C-0028B

PROGRAM NUMBER
00006678
DRAWING TITLE
DIVERSION SITE PLAN

DRAWING NUMBER
00-5
SHEET NUMBER
13 OF 40

