



UPPER LOOP UPGRADE

ULU PROJECT

The left side of the slide features a solid blue background decorated with several realistic water droplets of varying sizes, some with highlights and shadows, giving a fresh and clean aesthetic.

DISCUSSION OVERVIEW

- UPPER LOOP BRIEF DESCRIPTION
- NECESSITY FOR PROJECT
- PROJECT SCOPE OVERVIEW
- COST ESTIMATE
- FINANCING

BACKWASH POND
 WATER TREATMENT PLANT
 RECREATION AREA PARKING
 SOUTH FOX CREEK DIVERSION

HIGH PRESSURE
 STATION

WILLOW CREEK DIVERSION

MEADOW MOUNTAIN WATER
 SUPPLY COMPANY

PROJECT NUMBER

DATE

WATER MAP

SCALE

LEGEND

LEGEND

NECESSITY FOR PROJECT

- 2018 INLET LINE FROM FOX BREACHED
- SIX PEOPLE VISUALLY INSPECTED THE LINE. ALL REPORT SEVERE DEGRADATION DUE TO EROSION FROM PARTICULATES
- PER WENCK ENGINEERS, THE LIFE OF THE SCHEDULE 40 PVC USED IN THIS SERVICE IS NEAR THE MAXIMUM EXPECTED. MAXIMUM LIFE TO BE EXCEEDED 2028.

UPPER LOOP UPGRADE PROJECT SCOPE

- REPLACE INTAKE LINES TO FOX AND WILLOW CREEK
- REPLACE DISTRIBUTION LINES WHERE THOSE LINES CAN BE PLACED IN THE SAME TRENCH AS THE INTAKE LINES
- ADD AN ADDITIONAL LINE IN THE SAME TRENCH AS THE WILLOW CREEK INLET LINE FOR FUTURE CONNECTION TO THE ALLENSPARK WATER DISTRICT
- ADD A FIRE HYDRANT ON THE INTAKE LINE FROM WILLOW CREEK
- REPLACE THE UPPER HIGH LINE DISTRIBUTION LINE TO THE HIGH PRESSURE SHED

COST ESTIMATE

\$1 MM

Excavation	\$200,000
Blasting	\$ 75,000
Road Base	\$ 80,000
Pipe bedding	\$ 36,000
Haul off	\$ 50,000
Pipe	\$250,000
Service lines, taps, valves	\$ 29,000
Air vac	\$ 15,000
Fire hydrant	\$ 8,000
Contingency	\$225,000
Management & Eng Support	\$ 35,000



CAN WE WAIT ON THIS PROJECT?

- FAILURE MAY BE MILD AND SOMEWHAT INCONSEQUENTIAL FOR A WHILE. PER WENCK, CATASTROPHIC FAILURE UNLIKELY. WE MAY HAVE UNDETECTED LEAKS NOW WITH NO NOTICEABLE EFFECT.
- IF FAILURE OCCURS, WE HAVE REPAIR KITS. THIS NECESSITATES DIGGING AND FINDING THE LEAK, SHUTTING OFF CREEK FLOW, AND REPLACING THE LEAKING SECTION.

REASONS TO PROCEED NOW

- PVC PIPE LIFE EXPIRING (50 YRS. OLD?). REPLACEMENT MUST OCCUR IN NEAR FUTURE ANYWAY.
- VISUAL INSPECTION IDENTIFIED SEVERE DEGRADATION
- FAILURE COULD OCCUR ANYTIME. POTENTIAL CONSEQUENCES IF FAILURE OCCURS IN WINTER
 - LOWER LOOP LINE FREEZES
 - EXTREMELY DIFFICULT COSTLY REPAIR (WITH NO LONG-TERM BENEFIT TO EXPENDITURE) AND POSSIBLE SUPPLY CHAIN ISSUES
- FUNDING FOR THIS PROJECT WILL TAKE SUBSTANTIAL TIME TO ACCESS. IN OTHER WORDS, WE CAN'T WAIT TO APPLY FOR FUNDING WHEN THE PROJECT NECESSITY IS IMMINENT.
- UNIQUELY GIFTED AND WILLING BOARD MEMBERS
 - EXPERIENCED IN GRANT APPLICATIONS, LOAN NEGOTIATION, DEALING WITH STATE AGENCIES



TWO OPTIONS

Repair before failure
(if not now, when?)

Wait until failure

COST ESTIMATE TOTAL \$997,564

- UNIT COSTS OBTAINED FROM ACKERMAN BASED ON BIG ELK MEADOWS PROJECT AND ESCALATED TO 2022 COSTS
- FOR THIS ESTIMATE WE TOOK ACKERMAN'S PER UNIT COSTS AND APPLIED THEM TO THIS PROJECT.
- ASSUMED 50% OF EXCAVATION REQUIRES BLASTING (PROBABLY ACTUAL IS 30%)
- 25% CONTINGENCY
- \$40K CONTINGENCY FOR CREEK TIE IN POSSIBLE ISSUES
- \$35K FOR PROJECT MANAGEMENT, PROJECT REPORTING, AND ENGINEERING SUPPORT

COST ESTIMATE BREAKDOWN

- INLET LINE REPLACEMENT FOX \$67,000
- INLET LINE REPLACEMENT WILLOW \$440,000
- LINE FOR FUTURE ALLENSPARK CONNECTION \$51,000
- DISTRIBUTION LINE REPLACEMENT (NO EXCAVATION)
 - POTABLE TO BASE PENNY LANE \$115,000
 - POTABLE TO LOWER LOOP \$25,000
 - POTABLE TO FOX \$9,000
 - UPPER HIGH LINE POTABLE WATER (FROM FOX TO HIGH PRESSURE SHED) \$221,000 (EXCAVATION INCLUDED)
- OTHER (CREEK TIE IN CONTINGENCY, MANAGEMENT, REPORTING AND ENGINEERING SUPPORT) \$75,000