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+ ASSOCIATES
 PUBLIC PROJECT ENGINEERING

Water Systems Improvements Update

Greg Blackburn, PE | City Council Meeting 06.21.2023



Agenda

An aerial photograph of a city, likely Denver, Colorado, showing a river (the South Platte River) flowing through the center. A major highway interchange (I-275) is visible on the right side. The city grid and various buildings are visible throughout the scene. A red location pin is placed on the map, with the label 'Rollingwood' below it.

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WATER CIP RECAP

SCHEDULE

COST ESTIMATES

COMMUNITY OUTREACH

QUESTIONS

Our team has created a Bond Program management approach that maximizes **opportunities for savings** and **upholds schedule targets.**

Water Capital Improvements Plan Recap

- 2022 Water CIP includes 20 water system improvement projects
- Five (5) proposed packages approved by Council (February)
- Council approved contract to design Packages 1-4 (March)
- Package 5 (abandonment) on hold

Schedule – Packages 1-4

- Survey and geotechnical field work – Completed
- Survey office work due – 06/30
- Design to be completed – 09/08
- Project bid – September 2023
- Construction begins – November 2023

Preliminary Cost Estimates

BOND PACKAGE	CIP PROJECTS	TOTAL LENGTH	PLANNING LEVEL COST ESTIMATE
1	I, K, L, R, S	1,350	\$450,000
2	A-E	5,050	\$1,750,000
3	G, H, J, M, N, P	1,900	\$500,000
4	F, Q, T	2,550	\$950,000
TOTAL			\$3,650,000

NOTES:

- Detailed cost estimates to be developed once design is completed
- Estimate assumes repaving limited to trench only
- Approved design contract = \$423,778.67

Cost Estimates – Bid Options

- Projects can be bid with alternative for paving width
 - Trench repair, one lane, or full street width
- City can review bids and select best value

Community Outreach

- Project landing page active on City website
- Pre-construction notifications
- Door hangers for specific streets



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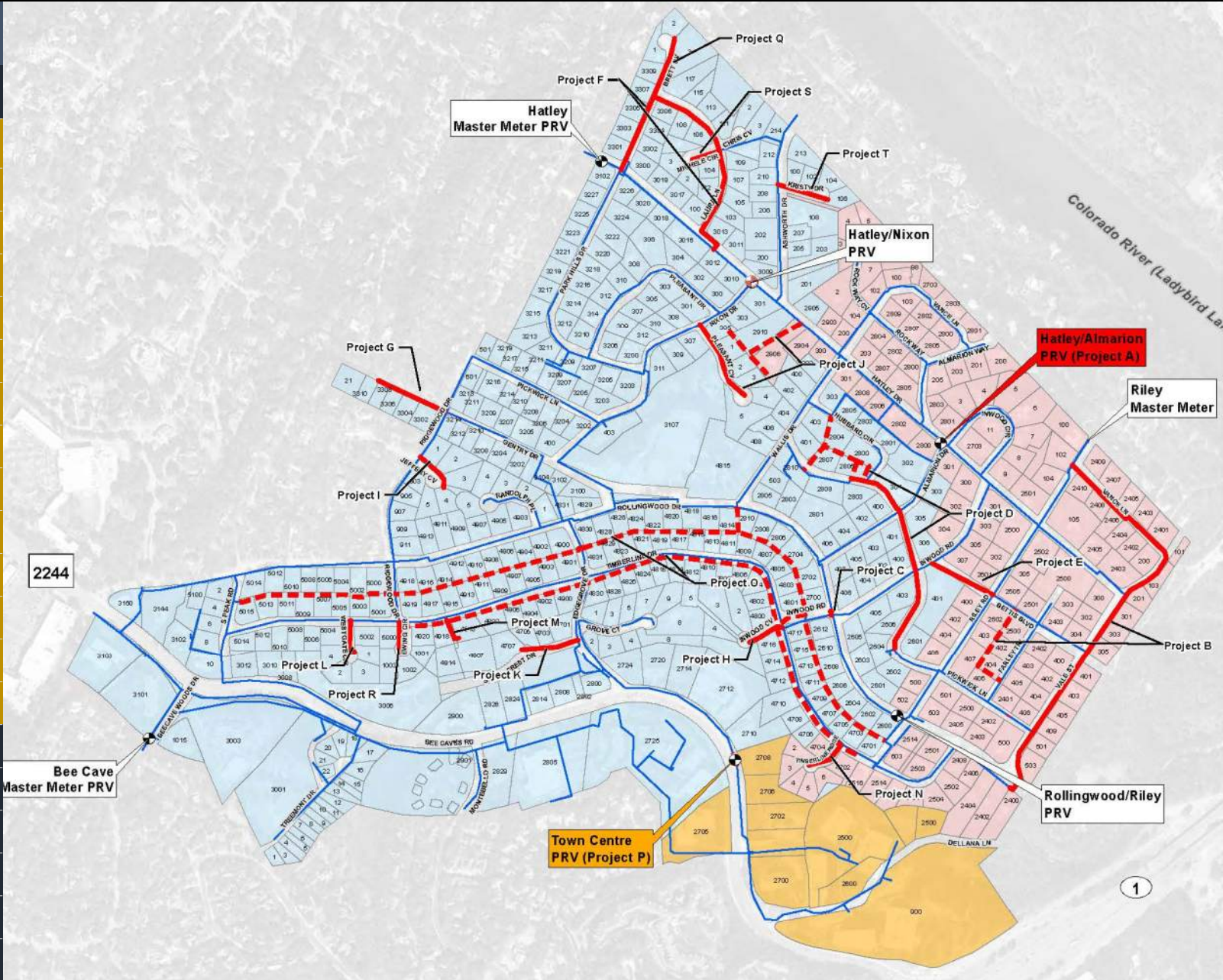
Questions?

Water CIP Bond Program Update



WATER CIP PROJECTS

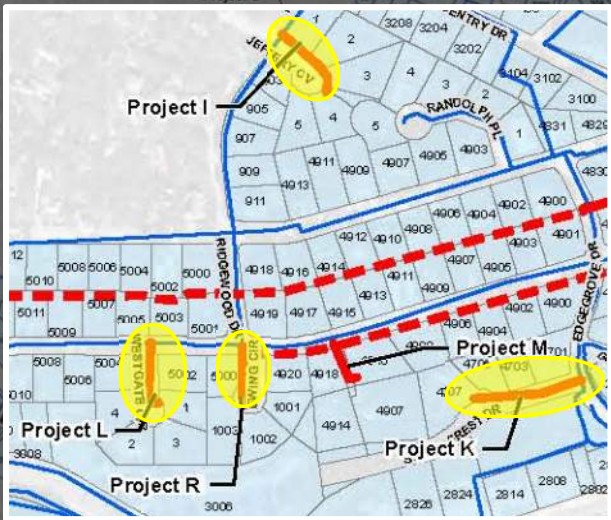
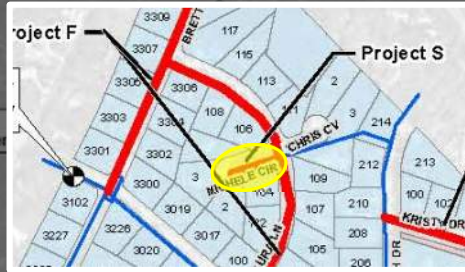
ID	Proposed Projects	Priority
A	Hatley/Almarion PRV Replacement	High
B	Vance & Vale St Water Improvements	High
C	Inwood Rd Interconnect	High
D	Pickwick Dr Fire Flow Improvements	High
E	Bettis Blvd Fire Improvements	High
F	Park Hills Dr/Laura Ln Fire Improvements	High
G	Gentry Dr Fire Improvements	High
H	Inwood Cove Fire Improvements	High
I	Jeffrey Cove Fire Improvements	High
J	Pleasant Cove Fire Improvements	High
K	S. Crest Dr Fire Improvements	High
L	Westgate Circle Fire Improvements	High
M	Ewing Easement Main Fire Improvements	High
N	Timberline Ridge Fire Improvements	High
O	Abandonment Projects	Low
P	Town Centre PRV	Low
Q	Brett Cove Fire Improvements	Low
R	Ewing Circle Fire Improvements	Low
S	Michele Circle Fire Improvements	Low
T	Kristy Dr Fire Improvements	Low



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Proposed Bond Packages

PACKAGE 1: Project I | Project K | Project L | Project R | Project S



Package 1 includes:

3 high-priority and 2 low-priority projects

- Fire flow improvements

SCOPE: 1,350 LF of 8-inch diameter water mains

Est. construction cost: \$450,000

- ▶ Design completed in 2016
- ▶ Minimal effort required to finalize plans

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Proposed Bond Packages

PACKAGE 2: Project A | Project B | Project C | Project D | Project E



Package 2 includes:

- 5 high-priority projects
 - Increase system pressures
 - Fire flow improvements

SCOPE: 5,550 LF of 8-inch diameter water mains

- Repair or replacement Hatley/Almarion PRV

Est. construction cost: \$1,750,000

- ▶ **Replace water mains with repeated breaks**
- ▶ **Generally located in northeast area of city**

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Proposed Bond Packages

PACKAGE 3: Project G | Project H | Project J | Project M | Project N | Project P

Package 3 includes:

5 high-priority and 1 low-priority projects

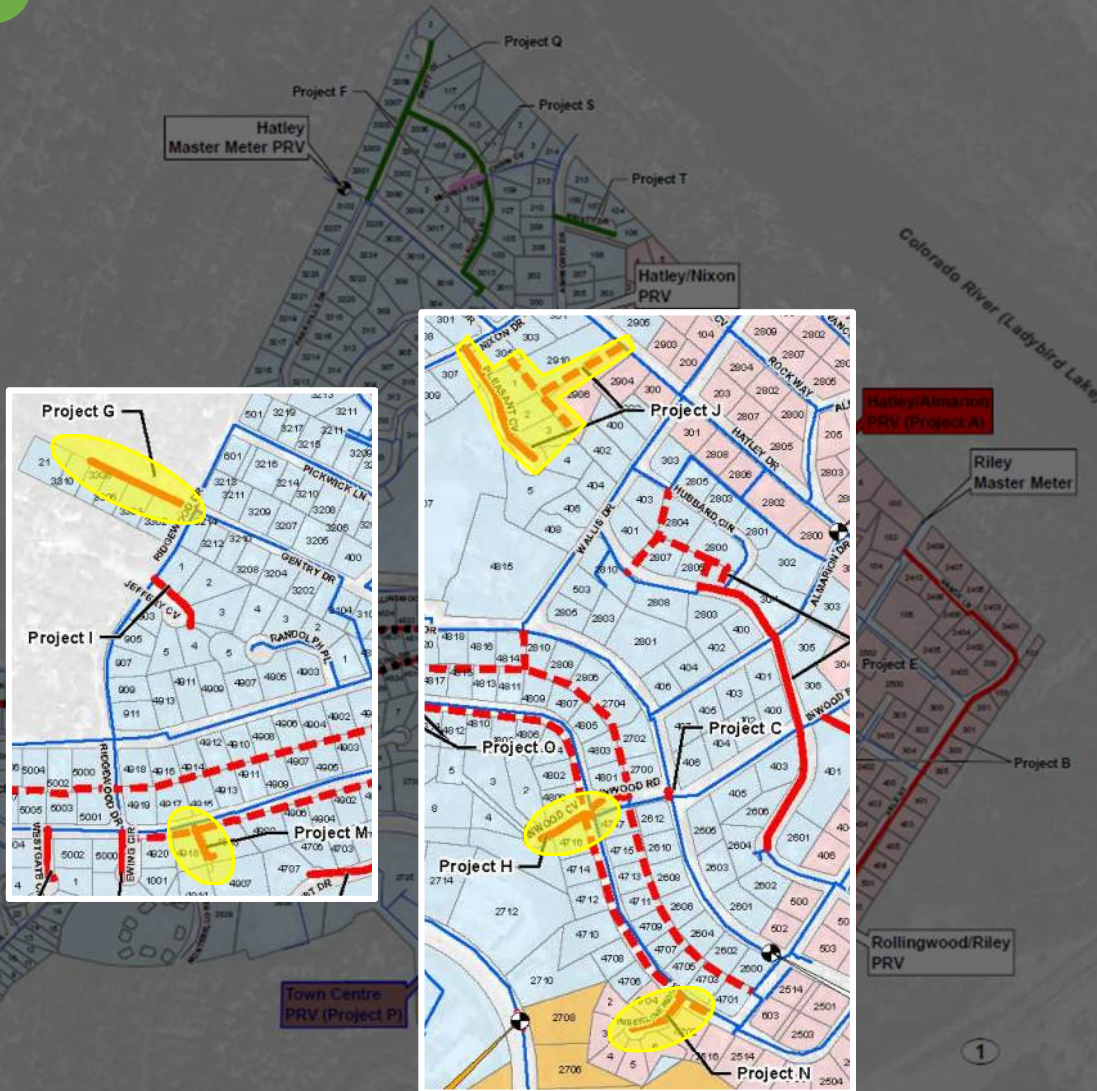
- Fire flow improvements
- Reduce high pressures

SCOPE: 1,900 LF of 8-inch diameter water mains

- One new PRV to serve Town Centre

Est. construction cost: \$500,000

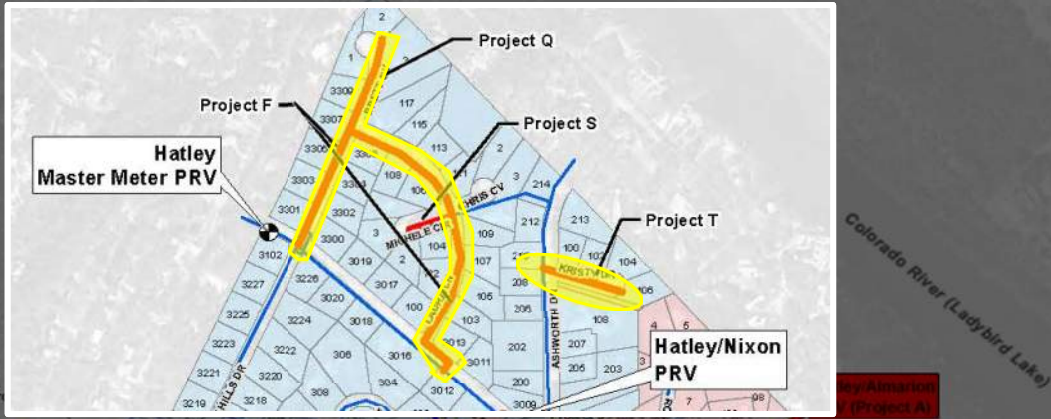
- ▶ Not geographically grouped
- ▶ Grouped for cost efficiency



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Proposed Bond Packages

PACKAGE 4: Project F | Project Q | Project T



Package 4 includes:

- 1 high-priority and 2 low-priority projects
- Fire flow improvements

SCOPE: 2,550 LF of 8-inch diameter water mains

Est. construction cost: \$950,000

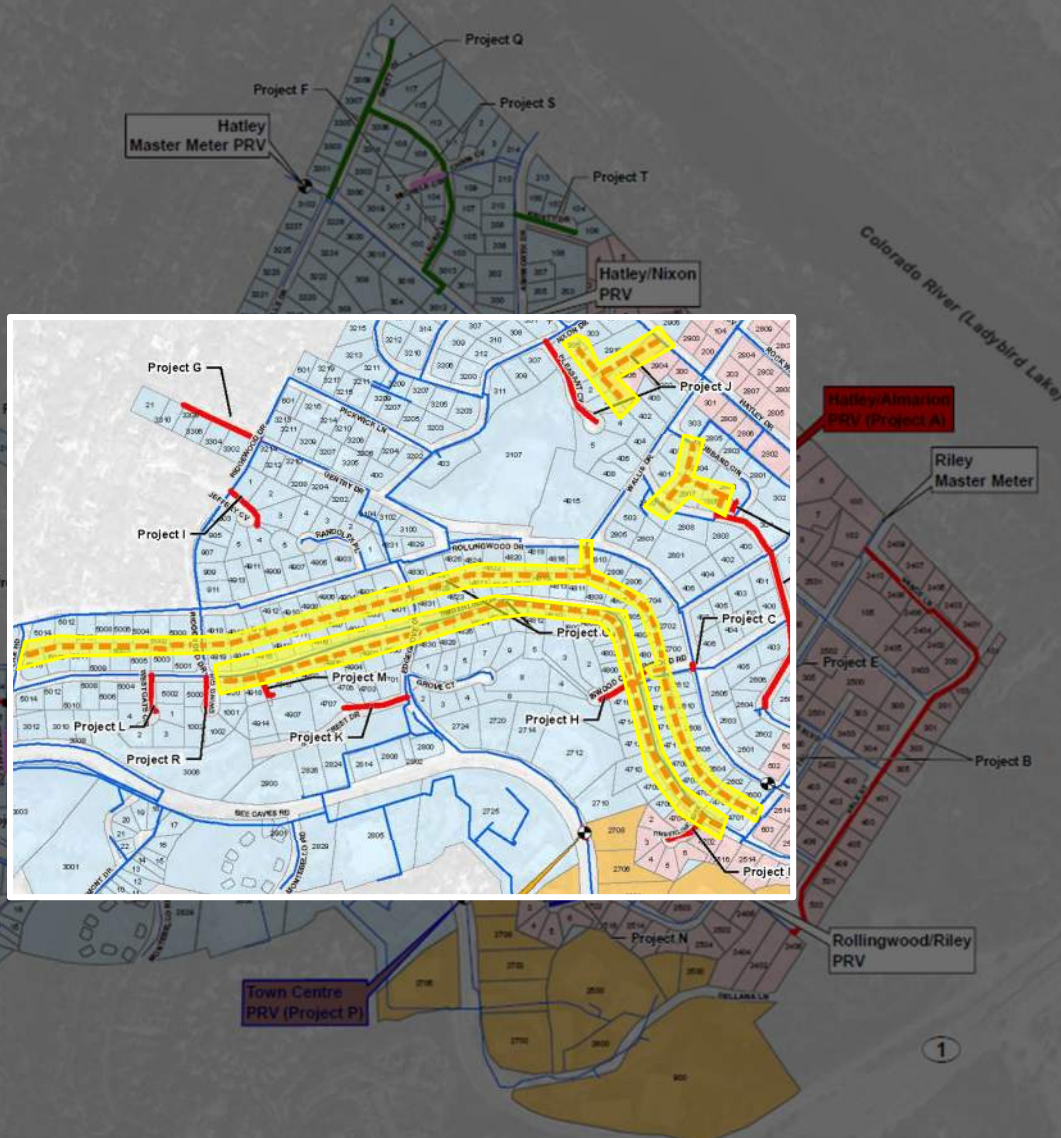
- ▶ Located in northwest corner of city
- ▶ Grouped geographically



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Proposed Bond Packages

PACKAGE 5: Project O



Package 5 includes:

1 low-priority project

- Backyard waterline abandonment
- Private service relocations

SCOPE: 12,850 LF of backyard waterline abandonment

- 48 private service relocations

Est. construction cost: \$800,000

- ▶ Includes abandonment from Projects D & J
- ▶ Requires extensive property owner coordination
- ▶ Longer design and construction schedule