

## Memorandum

Date: April 12, 2024

To: West Linn Planning Commission

From: Darren Wyss, Planning Manager

Subject: Water System Master Plan Update Work Session

At its April 17, 2024, meeting, the Planning Commission (PC) will hold a work session on the Water System Master Plan Update (Plan). This will be an opportunity for the PC to familiarize itself with the Plan before holding a public hearing to make a recommendation to City Council. The goal of the work session will be to:

- 1. Receive a presentation from the consultant team.
- 2. Ask clarifying questions of Public Works staff and the consultant team.
- 3. Request additional information.
- 4. Ask clarifying questions of Planning staff on the adoption process.

The current Water System Master Plan was adopted by City Council in November 2008. This is an update of the existing plan, which is a supporting document of the West Linn Comprehensive Plan. The Plan is designed to address the needs of the City's water system over the next 20 years. The Plan addresses current conditions, projected demand, performance criteria, system analysis, seismic evaluation, and finally a capital improvement and capital maintenance plan for the water system. Table 12-1 (found on page 135 of the linked document) is attached and provides descriptions of the recommended improvements and estimated costs.

The adoption of the Plan will be pursuant to the West Linn Community Development Code (CDC) Chapter 100 'Procedures for Adoption or Amendment of Supporting Plans'. A supporting plan is defined as any public facilities system or master plan or program that is a supporting document to the Comprehensive Plan. This is not a legislative adoption process under CDC Chapter 98 as it is a simple update to the Plan and includes no major infrastructure changes. The City is permitted to adopt an updated plan without a legislative process pursuant to Oregon Administrative Rule 660-011-0045.

The Planning Commission will hold a public hearing on May 15, 2024, to make a recommendation to the City Council.

West Linn Water System Master Plan Update 2024 West Linn Water System Master Plan (adopted 2008)

If you have questions or comments, please send them to Darren Wyss (<a href="mailto:dwyss@westlinnoregon.gov">dwyss@westlinnoregon.gov</a> or 503-742-6064).

Table 12-1 | Recommended CMP and CIP Budget and Schedule Summary

R.1 H R.2 V R.3 W R.4 B R.5 W S.6 H R.7 V R.8 B R.9 R P.1 W P.2 2 P.3 H P.4 D M-01 R M-02 P M-03 W M-04 W CMP-01 R CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	Replace two flow control ball valves on DSPS discharge to West Linn  Source Subtotal  Horton Interior & Exterior Coating  Valley View Interior & Exterior Coating  Willamette Interior & Exterior Coating  Reservoir Seismic Analysis (Willamette, Horton, View Drive, Bland, Rosemont)  Willamette Reservoir Seismic Rehabilitation  Horton Reservoir Seismic Rehabilitation  Valley View Reservoir Seismic Rehabilitation  Bland Reservoir Seismic Rehabilitation  Rosemont Reservoir Seismic Rehabilitation  Willamette Pump Station MCC Assessment  200 kW standby generator Bland/Valley Drive Pump Stations  Horton Pump Station Roof Replacement  Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal  Replace large diameter galvanized/steel pipe with ductile iron  PRV Station Drainage Improvements  Willamette/Marylhurst/Lazy River Drive Improvements  Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$200,000 \$200,000 \$1,000,000 \$1,000,000 \$300,000 \$300,000 \$420,000 \$265,000 \$40,000 \$250,000 \$250,000 \$390,000 \$390,000 \$300,000 \$2,000,000 \$2,000,000 \$2,000,000	\$500,000 \$500,000 \$670,000 \$1,170,000 \$2,000,000	\$750,00 \$750,00 \$750,00 \$750,00 \$750,00 \$3,750,000 \$3,750,000 \$3,750,000	\$2,250,000	\$200,000 \$200,000 \$1,000,000 \$500,000 \$670,000 \$300,000 \$750,000 \$750,000 \$750,000 \$750,000 \$420,000 \$420,000 \$420,000 \$4550,000 \$390,000 \$3,000,000 \$300,000
R.1 H R.2 V R.3 W R.4 B R.5 W S.6 H R.7 V R.8 B R.9 R P.1 W P.2 2 P.3 H P.4 D M-01 R M-02 P M-03 W M-04 W CMP-01 R CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	Horton Interior & Exterior Coating Valley View Interior & Exterior Coating Willamette Interior & Exterior Coating Reservoir Seismic Analysis (Willamette, Horton, View Drive, Bland, Rosemont) Willamette Reservoir Seismic Rehabilitation Horton Reservoir Seismic Rehabilitation Valley View Reservoir Seismic Rehabilitation Bland Reservoir Seismic Rehabilitation Rosemont Reservoir Seismic Rehabilitation  Rosemont Reservoir Seismic Rehabilitation  Seismic Subtotal Willamette Pump Station MCC Assessment 200 kW standby generator Bland/Valley Drive Pump Stations Horton Pump Station Roof Replacement Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal Replace large diameter galvanized/steel pipe with ductile iron PRV Station Drainage Improvements Willamette/Marylhurst/Lazy River Drive Improvements Water Master Plan  Operations Subtotal Replace small diameter galvanized/steel pipe with ductile iron Replace asbestos cement pipe with ductile iron Replace cast iron pipe with ductile iron	\$200,000 \$1,000,000 \$300,000 \$300,000 \$1,300,000 \$420,000 \$265,000 \$40,000 \$250,000 \$250,000 \$390,000 \$390,000 \$300,000 \$300,000 \$2,000,000	\$1,170,000 \$1,170,000 \$2,000,000	\$750,00 \$750,00 \$750,00 \$750,00 \$3,750,000 \$2,000,000 \$300,000	\$2,250,000	\$200,000 \$1,000,000 \$500,000 \$670,000 \$300,000 \$750,000 \$750,000 \$750,000 \$750,000 \$420,000 \$420,000 \$440,000 \$250,000 \$975,000 \$8,250,000 \$390,000
R.1 H R.2 V R.3 W R.4 B R.5 V 5.6 H R.7 V R.8 B R.9 R P.1 W P.2 2 P.3 H P.4 D M-01 R M-02 P M-03 W M-04 V  CMP-01 R CMP-02 R CMP-03 R  V-01 R V-02 D V-03 B	Horton Interior & Exterior Coating  Valley View Interior & Exterior Coating  Willamette Interior & Exterior Coating  Reservoir Seismic Analysis (Willamette, Horton, View Drive, Bland, Rosemont)  Willamette Reservoir Seismic Rehabilitation  Horton Reservoir Seismic Rehabilitation  Valley View Reservoir Seismic Rehabilitation  Bland Reservoir Seismic Rehabilitation  Rosemont Reservoir Seismic Rehabilitation  Rosemont Reservoir Seismic Rehabilitation  Seismic Subtotal  Willamette Pump Station MCC Assessment  200 kW standby generator Bland/Valley Drive Pump Stations  Horton Pump Station Roof Replacement  Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal  Replace large diameter galvanized/steel pipe with ductile iron  PRV Station Drainage Improvements  Willamette/Marylhurst/Lazy River Drive Improvements  Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$1,000,000 \$300,000 \$1,300,000 \$420,000 \$265,000 \$40,000 \$250,000 \$250,000 \$390,000 \$3,000,000 \$300,000 \$2,000,000	\$1,170,000 \$1,170,000 \$2,000,000	\$750,00 \$750,00 \$750,00 \$750,00 \$3,750,000 \$2,000,000 \$300,000	\$2,250,000	\$1,000,000 \$500,000 \$670,000 \$300,000 \$750,000 \$750,000 \$750,000 \$750,000 \$750,000 \$420,000 \$420,000 \$420,000 \$255,000 \$975,000 \$390,000 \$390,000
R.2 V R.3 V R.3 V R.4 R B R.5 V 5.6 H R.7 V R.8 B R.9 R P.1 V P.2 2 P.3 H P.4 D M-01 R M-02 P M-03 W M-04 V CMP-01 R CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	Valley View Interior & Exterior Coating  Valley View Interior & Exterior Coating  Willamette Interior & Exterior Coating  Reservoir Seismic Analysis (Willamette, Horton, View Drive, Bland, Rosemont)  Willamette Reservoir Seismic Rehabilitation  Horton Reservoir Seismic Rehabilitation  Valley View Reservoir Seismic Rehabilitation  Bland Reservoir Seismic Rehabilitation  Rosemont Reservoir Seismic Rehabilitation  Rosemont Reservoir Seismic Rehabilitation  Seismic Subtotal  Willamette Pump Station MCC Assessment  200 kW standby generator Bland/Valley Drive Pump Stations  Horton Pump Station Roof Replacement  Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal  Replace large diameter galvanized/steel pipe with ductile iron  PRV Station Drainage Improvements  Willamette/Marylhurst/Lazy River Drive Improvements  Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$1,000,000 \$300,000 \$1,300,000 \$420,000 \$265,000 \$40,000 \$250,000 \$250,000 \$390,000 \$3,000,000 \$300,000 \$2,000,000	\$1,170,000 \$1,170,000 \$2,000,000	\$750,00 \$750,00 \$750,00 \$750,00 \$3,750,000 \$2,000,000 \$300,000	\$2,250,000	\$1,000,000 \$500,000 \$670,000 \$300,000 \$750,000 \$750,000 \$750,000 \$750,000 \$750,000 \$420,000 \$420,000 \$420,000 \$255,000 \$975,000 \$390,000 \$3,000,000
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P.2 2 P.3 H P.4 D M-01 R M-02 P M-03 W M-04 W CMP-01 R CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	Willamette Pump Station MCC Assessment  200 kW standby generator Bland/Valley Drive Pump Stations  Horton Pump Station Roof Replacement  Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal  Replace large diameter galvanized/steel pipe with ductile iron  PRV Station Drainage Improvements  Willamette/Marylhurst/Lazy River Drive Improvements  Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$420,000 \$265,000 \$40,000 \$250,000 \$975,000 \$2,000,000 \$390,000 \$3,000,000 \$300,000 \$2,000,000	\$2,000,000	\$2,000,000	\$2,250,000	\$420,000 \$265,000 \$40,000 \$250,000 <b>\$975,000</b> \$8,250,000 \$390,000 \$3,000,000
P.2 2 P.3 H P.4 D M-01 R M-02 P M-03 W M-04 W CMP-01 R CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	200 kW standby generator Bland/Valley Drive Pump Stations Horton Pump Station Roof Replacement Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal Replace large diameter galvanized/steel pipe with ductile iron PRV Station Drainage Improvements Willamette/Marylhurst/Lazy River Drive Improvements Water Master Plan  Operations Subtotal Replace small diameter galvanized/steel pipe with ductile iron Replace asbestos cement pipe with ductile iron Replace cast iron pipe with ductile iron	\$265,000 \$40,000 \$250,000 <b>\$975,000</b> \$2,000,000 \$390,000 <b>\$3,000,000</b> \$300,000 \$2,000,000		\$300,000	\$2,250,000	\$265,000 \$40,000 \$250,000 <b>\$975,000</b> \$8,250,000 \$390,000 \$3,000,000
P.3 H P.4 D M-01 R M-02 P M-03 W M-04 W CMP-01 R CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	Horton Pump Station Roof Replacement  Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal  Replace large diameter galvanized/steel pipe with ductile iron  PRV Station Drainage Improvements  Willamette/Marylhurst/Lazy River Drive Improvements  Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$40,000 \$250,000 \$975,000 \$2,000,000 \$390,000 \$3,000,000 \$5,390,000 \$300,000 \$2,000,000		\$300,000	\$2,250,000	\$40,000 \$250,000 <b>\$975,000</b> \$8,250,000 \$390,000 \$3,000,000
P.4 D  M-01 R  M-02 P  M-03 W  M-04 W  CMP-01 R  CMP-02 R  CMP-03 R  V-01 R  V-01 R  V-02 D  V-03 B	Demolish Valley View Pump Station & Reservoir  Pump Station Subtotal  Replace large diameter galvanized/steel pipe with ductile iron  PRV Station Drainage Improvements  Willamette/Marylhurst/Lazy River Drive Improvements  Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$250,000 \$975,000 \$2,000,000 \$390,000 \$3,000,000 \$5,390,000 \$300,000 \$2,000,000		\$300,000	\$2,250,000	\$250,000 <b>\$975,000</b> \$8,250,000 \$390,000 \$3,000,000
M-01 R M-02 P M-03 V M-04 V  CMP-01 R CMP-02 R CMP-03 R  V-01 R V-02 D V-03 B	Pump Station Subtotal Replace large diameter galvanized/steel pipe with ductile iron PRV Station Drainage Improvements Willamette/Marylhurst/Lazy River Drive Improvements Water Master Plan  Operations Subtotal Replace small diameter galvanized/steel pipe with ductile iron Replace asbestos cement pipe with ductile iron Replace cast iron pipe with ductile iron	\$975,000 \$2,000,000 \$390,000 \$3,000,000 \$5,390,000 \$300,000 \$2,000,000		\$300,000	\$2,250,000	\$975,000 \$8,250,000 \$390,000 \$3,000,000
M-02 P M-03 W M-04 W  CMP-01 R CMP-02 R CMP-03 R  V-01 R V-02 D V-03 B	Replace large diameter galvanized/steel pipe with ductile iron PRV Station Drainage Improvements Willamette/Marylhurst/Lazy River Drive Improvements Water Master Plan  Operations Subtotal Replace small diameter galvanized/steel pipe with ductile iron Replace asbestos cement pipe with ductile iron Replace cast iron pipe with ductile iron	\$2,000,000 \$390,000 \$3,000,000 \$5,390,000 \$300,000 \$2,000,000		\$300,000	\$2,250,000	\$8,250,000 \$390,000 \$3,000,000
M-02 P M-03 W M-04 W  CMP-01 R CMP-02 R CMP-03 R  V-01 R V-02 D V-03 B	PRV Station Drainage Improvements Willamette/Marylhurst/Lazy River Drive Improvements Water Master Plan  Operations Subtotal Replace small diameter galvanized/steel pipe with ductile iron Replace asbestos cement pipe with ductile iron Replace cast iron pipe with ductile iron	\$390,000 \$3,000,000 \$5,390,000 \$300,000 \$2,000,000		\$300,000	\$2,250,000	\$390,000 \$3,000,000
M-03 W M-04 W  CMP-01 R CMP-02 R CMP-03 R  V-01 R V-02 D V-03 B	Willamette/Marylhurst/Lazy River Drive Improvements  Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$3,000,000 \$5,390,000 \$300,000 \$2,000,000	\$2,000,000			\$3,000,000
M-04 W  CMP-01 R  CMP-02 R  CMP-03 R  V-01 R  V-02 D  V-03 B	Water Master Plan  Operations Subtotal  Replace small diameter galvanized/steel pipe with ductile iron  Replace asbestos cement pipe with ductile iron  Replace cast iron pipe with ductile iron	\$5,390,000 \$300,000 \$2,000,000	\$2,000,000			
CMP-01 R CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	Operations Subtotal Replace small diameter galvanized/steel pipe with ductile iron Replace asbestos cement pipe with ductile iron Replace cast iron pipe with ductile iron	\$300,000 \$2,000,000	\$2,000,000			¢3በበ በበበ
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CMP-02 R CMP-03 R V-01 R V-02 D V-03 B	Replace asbestos cement pipe with ductile iron Replace cast iron pipe with ductile iron	\$2,000,000		\$2,300,000	\$2,250,000	\$11,940,000
V-01 R V-02 D V-03 B	Replace cast iron pipe with ductile iron					\$300,000
V-01 R V-02 D V-03 B		\$2,000,000	\$1,500,000	\$4,000,000	\$8,665,000	\$16,165,000
V-02 D V-03 B	CMP Subtotal	Ψ=,000,000	\$2,000,000	\$2,000,000	\$22,150,000	\$28,150,000
V-02 D V-03 B		\$4,300,000	\$3,500,000	\$6,000,000	\$30,815,000	\$44,605,000
V-03 B	Riverview Drive PRV Station	\$250,000				\$250,000
	Debok/Killarny PRV Station	\$250,000				\$250,000
	Bland Circle PRV Station	\$250,000				\$250,000
V-04 C	Carriage Way/Wildwood PRV Station		\$500,000			\$500,000
V-05 F	Firwood/Skyline PRV Station		\$250,000			\$250,000
V-06 C	Carriage Way/Hunter PRV Station		\$250,000			\$250,000
D-01 6	6,000 ft 8" and 12" diameter in Willamette Pressure Zone		\$3,700,000			\$3,700,000
D-02 6	600 ft 8" and 12" diameter in Willamette Pressure Zone.		\$360,000			\$360,000
D-03 3	3,000 ft 8" diameter in Bland Pressure Zone.		\$1,400,000			\$1,400,000
D-04 6	6,800 ft 8" diameter in Bolton Pressure Zone			\$3,250,000		\$3,250,000
D-05 2	2,700 ft 8" diameter in Willamette and Bland Pressure Zones			\$1,200,000		\$1,200,000
D-06 2	2,100 ft 8" diameter in Bolton Pressure Zone			\$945,000		\$945,000
D-07 2	2,770 ft 8" diameter in Robinwood Pressure Zone			\$1,260,000		\$1,260,000
1)-()X	6,860 ft 8" and 12" diameter in Willamette and Bland Pressure Zones			\$4,235,000		\$4,235,000
D-09 1	1,950 ft 8" and 12" diameter in Bolton Pressure Zone			\$1,235,000		\$1,235,000
D-10 2	2,580 ft 8" and 12" diameter in Bolton Pressure Zone			\$1,515,000		\$1,515,000
1)_11	3,400 ft 8" diameter pipe to increase capacity at dead ends in the Horton Pressure Zone.				\$1,550,000	\$1,550,000
11-17	4,650 ft 8" diameter pipe to increase capacity at dead ends in the Bolton Pressure Zone.				\$2,200,000	\$2,200,000
D-13 5	5,600 ft 8" diameter pipe to increase capacity at dead ends in the Horton and Rosemont Pressure Zones.				\$2,110,000	\$2,110,000
11-17	2,630 ft 8" diameter pipe to increase capacity at dead ends in the Willamette Pressure Zone.				\$1,197,000	\$1,197,000
1)-15	3,260 ft 8" diameter pipe to increase capacity at dead ends in the Rosemont Pressure Zone.				\$1,980,000	\$1,980,000
D-16 th	2,130 ft 8" diameter pipe to increase capacity at dead ends in the Robinwood Pressure Zone.				\$970,000	\$970,000
	3,420 ft 8" diameter pipe to increase capacity at dead ends in the Robinwood and Rosemont Pressure Zones.				\$1,600,000	\$1,600,000
D-18	300 ft 8" diameter pipe to increase capacity to fire hydrant in the Horton Pressure Zone.				\$150,000	\$150,000
11_14	300 ft 8" diameter pipe to increase capacity to fire hydrant in the Horton Pressure Zone.				\$150,000	\$150,000
	Distribution Subtotal	\$750,000	\$6,460,000	\$13,640,000	\$11,907,000	\$32,757,000
	CIP & CMP Total	\$12,915,000	\$13,130,000	\$25,690,000	\$14,157,000	\$96,287,000