



Regional Wastewater Reclamation Facility Upgrade & Financing Plan

August 3, 2023



MEDFORD
PUBLIC WORKS

Regional Wastewater Reclamation Facility – Upgrade

Requested Action:

Approve a Resolution authorizing the issuance, sale, execution, and delivery of sewer revenue bonds in an aggregate principal amount not to exceed \$300,000,000.

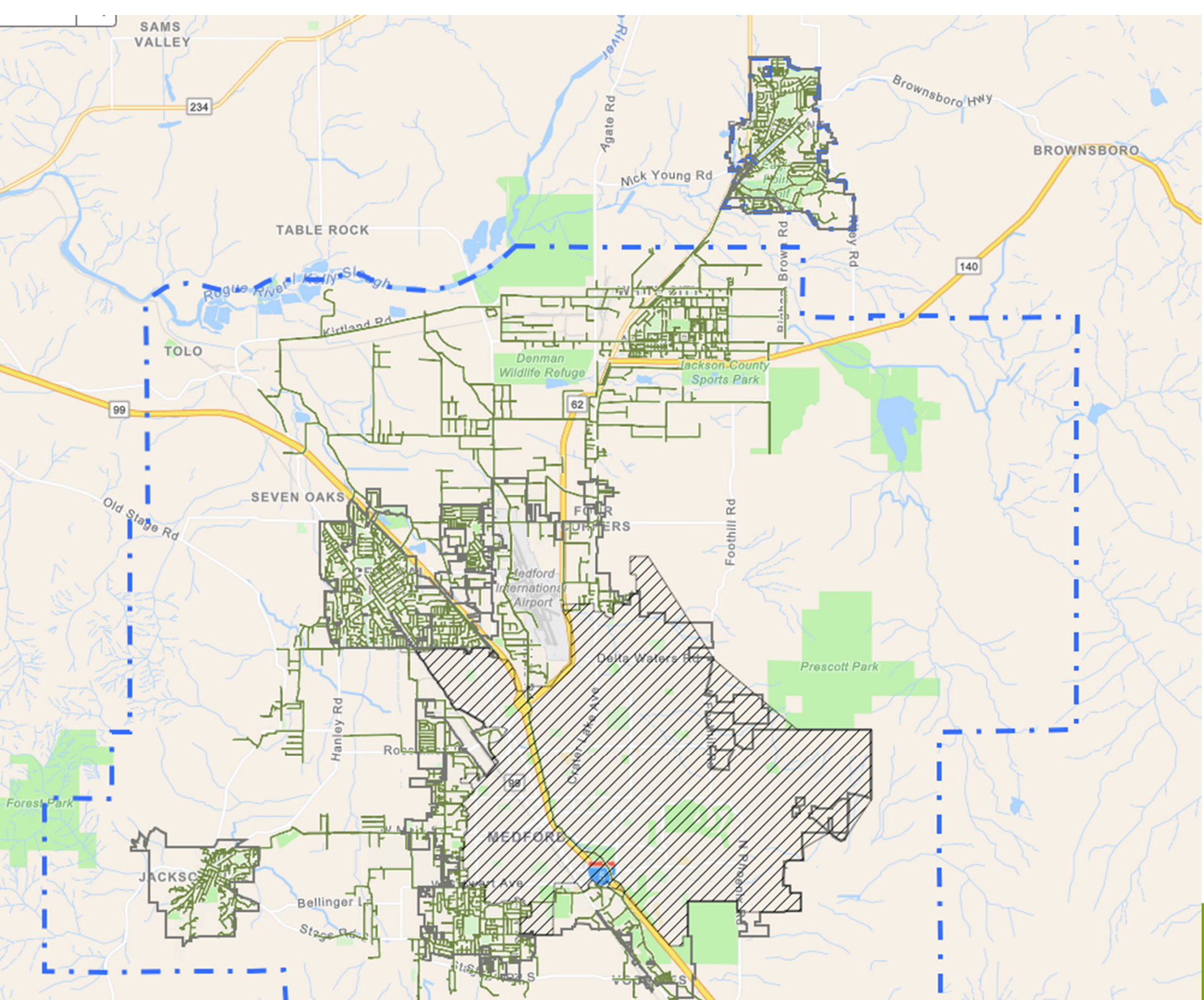


Regional Wastewater Reclamation Facility – Upgrade

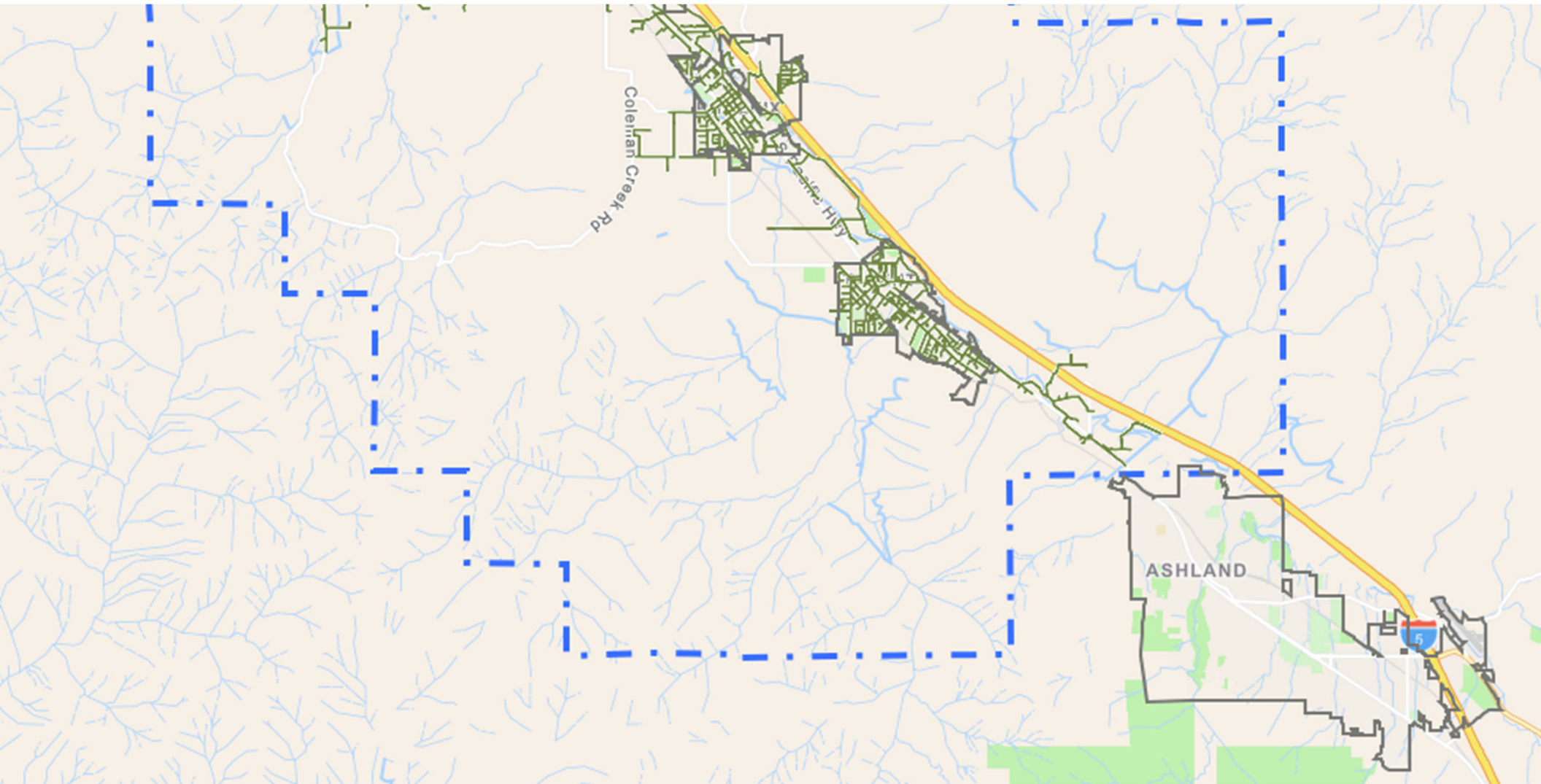
Overview of RWRF

- Serves the Bear Creek Drainage Basin, except Ashland
- Plus, Eagle Point, White City and some unincorporated areas
- Population served:
 - 2010 – 145,150
 - 2020 – 159,185
 - 2045 – 212,250
(projected in Facility Plan)





Regional Wastewater Reclamation Facility – Upgrade



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Overview of RWRF

- Original Camp White Facility, City took it in 1948
- Major reconstruction in 1970, significant expansions since 1980
- Plant treats 18 million gallons of waste daily
- Treatment:
 - Primary & Secondary treatment with disinfection
 - Secondary – Suspended Growth / Activated Sludge
 - Solids treatment – Anaerobic digestion and landfill
- Plant technology - time-test & very common



Regional Wastewater Reclamation Facility – Upgrade



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Legal Actions

- Northwest Environmental Advocates (NWEA) brought a suit against the city in 2018
 - Violating the Clean Water Act (algae growth, impacts to natural biological communities, odor, foaming, etc.)
- NWEA - very critical of DEQ (not enforcing permit)
- DEQ found repeatedly – City's not in violation
- Lawsuit is currently stayed pending the NPDES Permit



Regional Wastewater Reclamation Facility – Upgrade

NPDES Permit

- Federal Clean Water Act – prohibits the discharges of pollutants to “waters of the state”
- National Pollutant Discharge Elimination System (NPDES)
- Previous permit - Dec. 2011, Expired Nov. 2016
 - stays into effect until a new permit is issued
- City was always in compliance



Regional Wastewater Reclamation Facility – Upgrade

NPDES Permit

- DEQ issued new permit August 10, 2021
- Required **significant** reductions in Total Nitrogen, Total Phosphorus, and in temperature
 - *Current plant incapable of meeting new permit conditions*
- City appealed – too stringent
- NWEA appealed – not stringent enough
- Judge – Both the City and NWEA are wrong – the NPDES permit issued by DEQ is fine



Regional Wastewater Reclamation Facility – Upgrade

NPDES Permit

- Permit - Significant Plant Upgrades Required
 - Sept. 1, 2023 – Submit a New Facility Plan
 - Sept. 1, 2024 – Submit preliminary plant design
 - Sept. 1, 2026 – Submit final plant design
 - Sept. 1, 2028 – Complete new plant construction to meet all permit conditions
 - Sept. 1, 2030 – Meet all new permit conditions



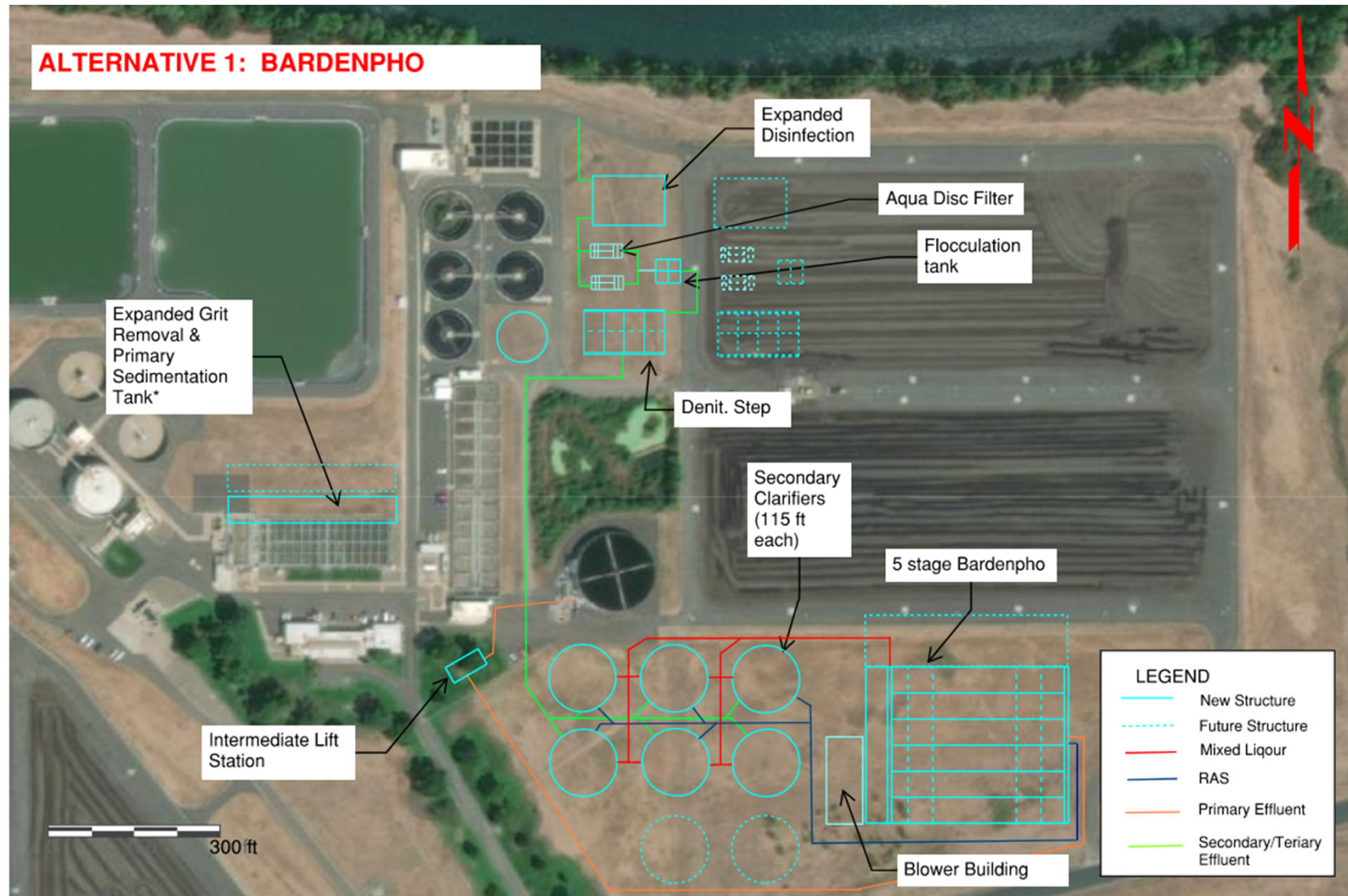
Regional Wastewater Reclamation Facility – Upgrade

New Facility Plan

- Contracted with West Yost and Black & Veatch
- Facility Plan – answers the question:
“What does the plant need to look like to meet permit requirements and future population growth?”
- Broad range of alternatives, technologies, designs, and costs



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New Facility Plan

	Workshop 5 Range (\$M)	Workshop 6 Estimate (\$M) Low-High (OPCC Estimate)
1. SG-SC	\$95 - \$200	\$120 - \$250 (\$170)
4. AGS	\$80 - \$150	\$145 - \$320 (\$210)
5. BNR-MBR	\$90 - \$200	\$100 - \$220 (\$145)

Secondary Treatment OPEX	Total chemicals	Total Energy	R&R	20-yr Present Worth OPEX
Alt1. SG-SC	10,115,000	9,000,000	3,000,000	22,100,000
Alt4. AGS	6,870,000	7,800,000	3,500,000	18,130,000
Alt5. MBR	25,160,000	18,300,000	14,700,000	59,000,000



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Financing Plan

Task	Activity	Sept 2021	Dec 2021	Mar 2022	Jun 2022	Sept 2022	Dec 2022	Mar 2023	Jun 2023	Sept 2023	Dec 2023	Mar 2024	Jun 2024	Sept 2024	Dec 2024	Mar 2025	Jun 2025	Sept 2025	Dec 2025	Mar 2026	Jun 2026	Sept 2026	Dec 2026	Mar 2027	Jun 2027	Sept 2027	Dec 2027	Mar 2028	Jun 2028	Sept 2028	Dec 2028	Mar 2029	Jun 2029	Sept 2029	Dec 2029	Mar 2030	Jun 2030	Sept 2030
1	Complete Draft Facility Plan & Submit to DEQ									X ¹																												
2	Complete Preliminary Design (10-15% Plans) & Submit to DEQ													X																								
3	Complete Final Design (100% Plans) & Submit to DEQ																					X																
4	PS&E, Bid and Award Contract for Stage 1																																					
5	Complete Stage 1 Construction																														X							
6	Construct Condition Related Improvements																																					
7	Complete start up and process optimization																																			X		
8	Achieve Final Permit Limits																																					X
Revenue Required ²		\$0 (Paid for in 21-23 Budget)									\$2.75M			\$10.3M				\$10.5M			\$162.25M						\$35.5M											



Regional Wastewater Reclamation Facility – Financing

Financing Plan

- WIFIA by EPA Loans
- Revenue Bonds
- Goal is to minimize rate increases as much as possible



Regional Wastewater Reclamation Facility – Financing

Timeline

- August 3, 2023: Council adopts bonding authorization resolution
- October 3, 2023: Letter of intent submitted to WIFIA
- March 31, 2024: Formal WIFIA application submitted



Regional Wastewater Reclamation Facility – Financing

Timeline

- June 30, 2024: Revenue bonds issued
- September 30, 2024: WIFIA application approved for funding
- July 2026: Second bond issuance
- July 2028: Third bond issuance



Regional Wastewater Reclamation Facility – Financing

Utility Rates

- Current sewer treatment rate for COM is \$9.79 per month for SFR
- Estimated sewer treatment rate at completion of project is >\$30 per month for SFR



Regional Wastewater Reclamation Facility – Financing

Future Communications

- Council Briefings/Study Sessions
- Regional Rate Committee
- Cities and County affected by the rate increases



Regional Wastewater Reclamation Facility – Financing

Recommendation:

Staff recommends approval a Resolution authorizing the issuance, sale, execution, and delivery of sewer revenue bonds in an aggregate principal amount not to exceed \$300,000,000.

Motion:

I move to approve the resolution.

