

DISCHARGE PROHIBITION COMPLIANCE INVESTIGATION

August 6, 2018



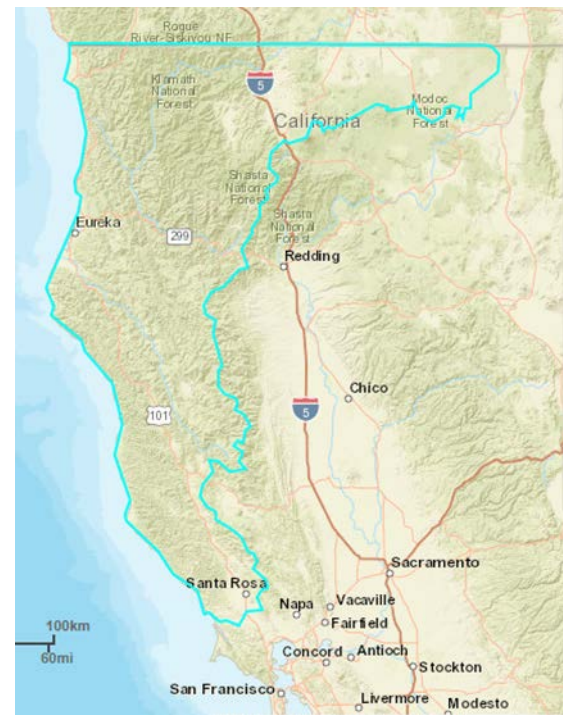
Recommended Council Action

- Adopt a resolution approving the NPDES Seasonal Discharge Prohibition Compliance Feasibility Investigation (Plan) and directing staff to file the Plan with the North Coast Regional Water Quality Control Board



Background

- The WRF is operated in compliance with the City's NPDES permit.
- The permit is administered by the North Coast Regional Water Quality Control Board (Regional Board)
- One of the key compliance requirements for the City is meeting the Basin Plan's prohibition of "waste discharges" between May 15 and September 30, a 138-day period.



The North Coast Regional Board administers wastewater dischargers in Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Trinity counties, and parts of Modoc, Siskiyou, Sonoma counties. All dischargers in the North Coast Region have discharge prohibitions similar to Healdsburg.

Background

- With the 2016 NPDES Discharge Permit renewal the Regional Board issued a Cease and Desist Order (CDO), addressing the prohibition period discharges.
- The CDO deadline to stop discharging during the prohibition period, May 15 through September 30, is July 31, 2021 (two extensions have been granted to this date).
- The CDO requires the City to develop a discharge prohibition compliance plan by August 31, 2018.



Background

- During the discharge prohibition period, the City produces approximately 1 million gallons per day (mgd) of tertiary treated effluent, or 138 million gallons (MG)
- In the future, this could be as much as 1.4 mgd or 193 MG
- To date, gains have been made but full compliance has not been reached.



Options for Beneficial Reuse

Alternative	Description	MG	Cost	Discussion
No Project-Status Quo	<ul style="list-style-type: none"> Maximize existing facilities and uses 	From 33 MG to 100 MG at full use	Already in budget – including pond lining	<ul style="list-style-type: none"> Engage all users (7 of 13 now are engaged) within the 960 Ac service area (360 Ac currently engaged), 38 MG remain to reuse
Agricultural Reuse Expansion	<ul style="list-style-type: none"> Add pasture, hay, orchard, cannabis Expand service area west Two users (dairy farm and vineyards) identified 	73	\$250k in permitting \$1.5 M (Within rate structure)	<ul style="list-style-type: none"> Adds 5,000 feet of 12-inch and 4,000 feet of 8-inch pipeline Requires changes to RW permit and EIR update Addresses full near term discharge Reaches compliance!

Options for Beneficial Reuse

	Description	MG	Cost	Discussion
Urban Reuse, Golf and Municipal Turf	Extend <ul style="list-style-type: none"> • Freeway Crossing • 16,800 ft of 12-inch; • 6,600 ft of 8-inch; • 700 ft of 4-inch 	34	\$10M	<ul style="list-style-type: none"> • Addresses 34 of the 38 mgd remaining after Existing Users are fully engaged. • Additional uses are still required for compliance • May require rate increase and/or additional time for compliance

Urban pipeline construction is more expensive than agricultural irrigation pipeline.

- Pipe bedding and back fill is imported material is required in urban construction.
- Utilities, traffic slow construction rate of progress.
- Surface restoration requires pavement in urban setting.



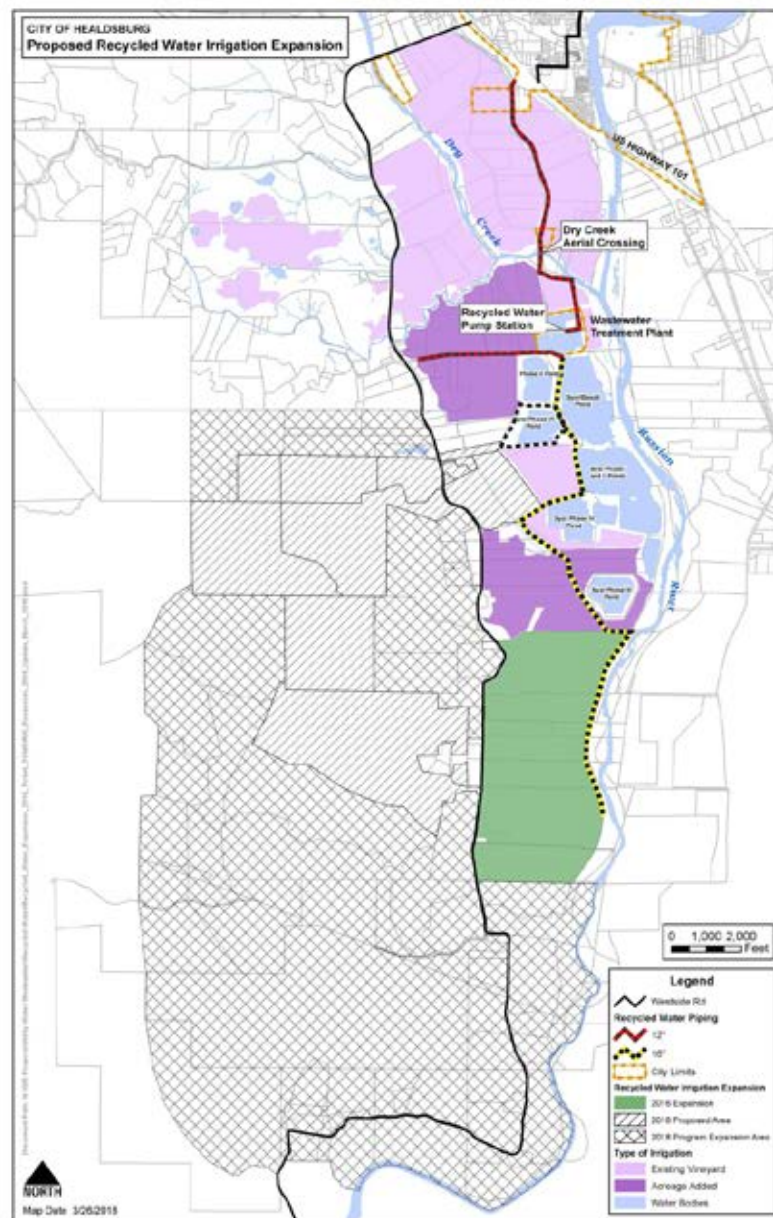
Options for Beneficial Reuse

Alternative	Desc.	MG	Cost	Discussion
Geysers Pipeline	200 ft of 8-inch pressure line; booster pump station	Full range	\$30 M	<ul style="list-style-type: none"> • \$3M improvements • \$27M in pipeline capacity costs based on \$500k/year escalating at 3.854%



Recommended Plan

- Step 1 – Engage Existing Service Area and Uses Fully – Staff is working with existing users to accomplish this.
- Step 2 – Expand Recycled Water Uses and Service Area – Two prospective users have been identified. Supplemental EIR and Title 22 Report revision are underway
- Step 3 – Expand Service Area West of Westside Road – Construct the pipelines in the 2019 construction season to begin use in 2020 (pending environmental clearance)



Recommended Plan

- Anticipated Discharge Diversions
 - 2017 – 33 MG – Existing conditions
 - 2018 – 47 MG – Incremental increase use from existing and already-identified users estimated at 2017 levels to full usage in four incremental steps
 - 2019 – 74 MG Incremental increase use from existing and already-identified users; add hay irrigation in existing service area
 - 2020 – 129 MG - Incremental increase use from existing and already-identified users; add pasture irrigation and western vineyard in incremental steps
 - 2021 – 151 MG Compliant! Full usage of existing and already identified users; pasture and western vineyard incremental increases
 - 2022 – 173 MG Full usage by all.
 - Continuous - Identify additional potential users within the service area

Challenges of the Recommended Plan

- Agricultural reuse depends on the actions of others using the recycled water.
- The plan requires changes to the environmental document and recycled water use permit.
- Additional beneficial reuses (more agricultural or urban uses) will need to be developed for long-term post 2021 compliance.

Alternatives

- City Council could choose a course other than the recommended action presented. This would require Council to clarify how the alternative plan would meet compliance with the discharge prohibition's time frame and fall within the City's ability to pay for necessary and related projects.
- After thorough study staff does not recommend pursuing alternatives other than the recommend action as alternatives will not meet the compliance deadline and/or will come at a higher cost to the City Wastewater customers.



Fiscal Impact

- Today's requested action to approve the Plan and authorizing staff to submit it to the Regional Board will result in no cost to the City.
- Implementation of the recommended Plan is expected to have a cost of \$1,750,000 to \$2,000,000, which has been included in the 2018-2023 CIP budget



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Questions?

