EBMUD-Central San Recycled Water Feasibility Evaluation Update

Planning Committee

December 12, 2023

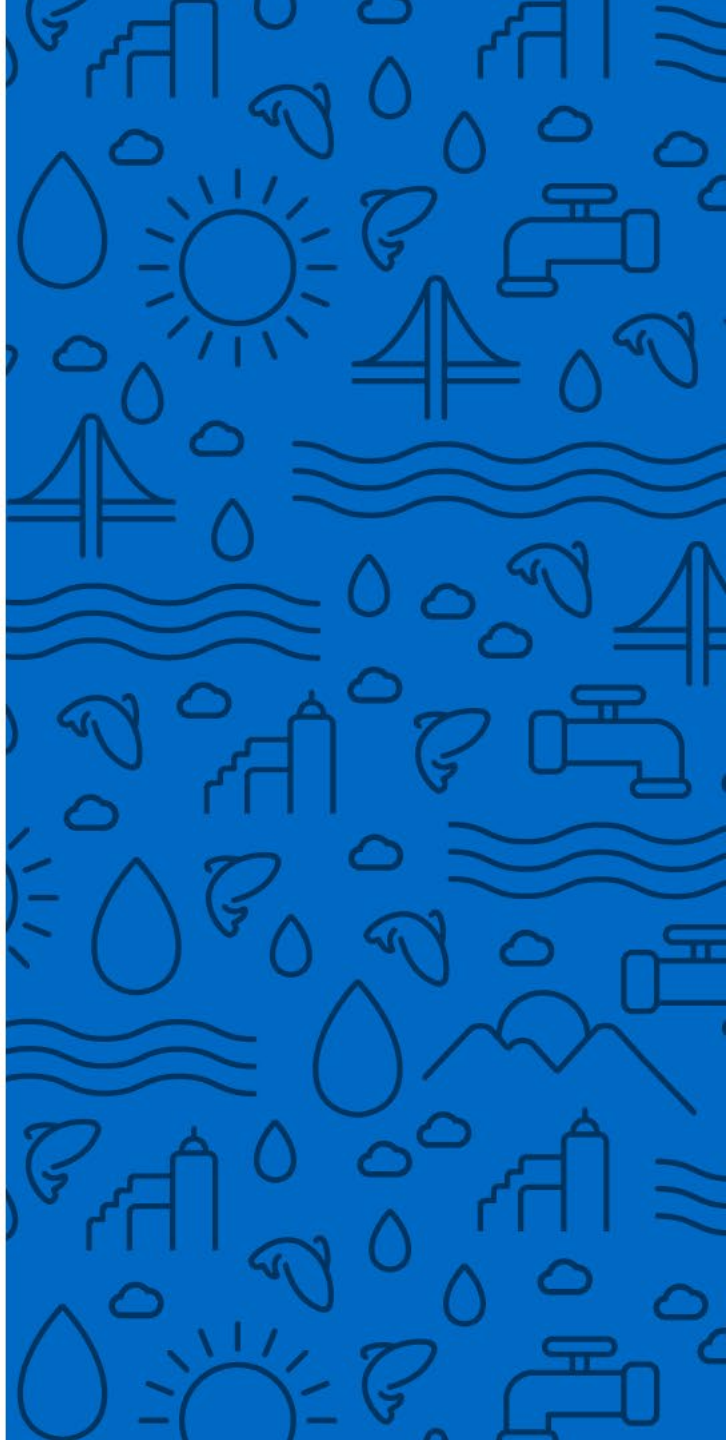
Agenda

- Background
- Non-Potable Reuse Project Concepts
- Potable Reuse Project Concepts
- Project Rankings and Unit Costs
- Next Steps

Background

- Central Costa Contra Sanitary District (Central San) identified as potential partner for regional recycled water opportunities in 2019 Recycled Water Master Plan Update
- Memorandum of Understanding between EBMUD and Central San executed in October 2022 to further explore recycled water partnership opportunities
  - Evaluate non-potable and potable reuse project concepts
  - EBMUD to lead development of the feasibility study

Non-Potable Reuse Project Concepts



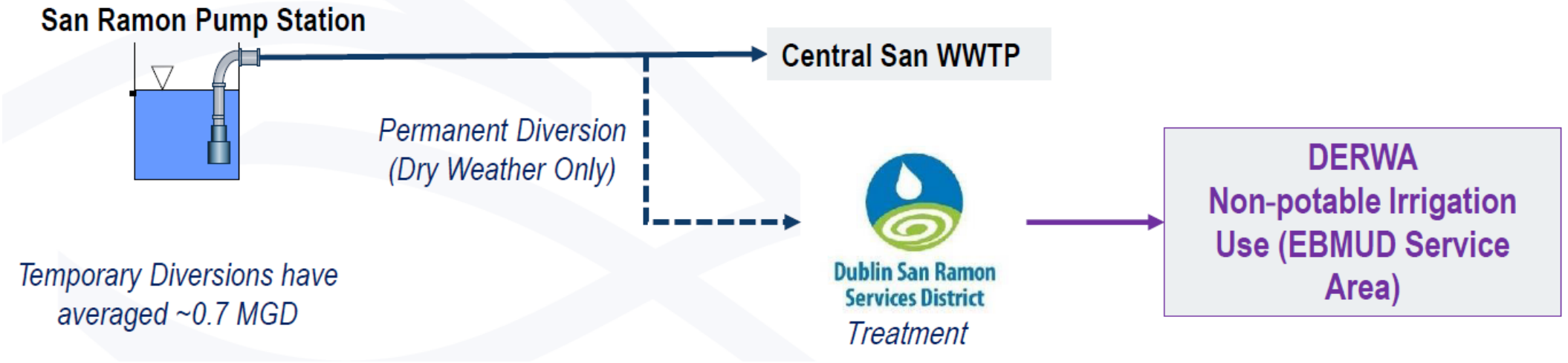
Non-Potable Reuse Project Summary

Project Concept	Average Capacity/Yield	Recommend for Further Consideration in Recycled Water Strategic Plan Update?
Lamorinda Project	<1 MGD/1,000 AFY	No – significant cost to expand distribution system, low amount of potable water savings
Satellite Water Recycling Facilities	<0.5 MGD/250 AFY per customer	Continue to support customers considering self-funding satellite projects
San Ramon Valley/DERWA Expansion	Up to 3 MGD/2,200 AFY	Yes – lower cost project, proof of concept through temporary diversions
Refinery Recycled Water Exchange	Up to 13 MGD to refineries Yield to EBMUD through exchange: Up to 6.5 MGD/ 7,300 AFY	No – water supply benefit to EBMUD is limited, uncertainty associated with future refinery demands/operations

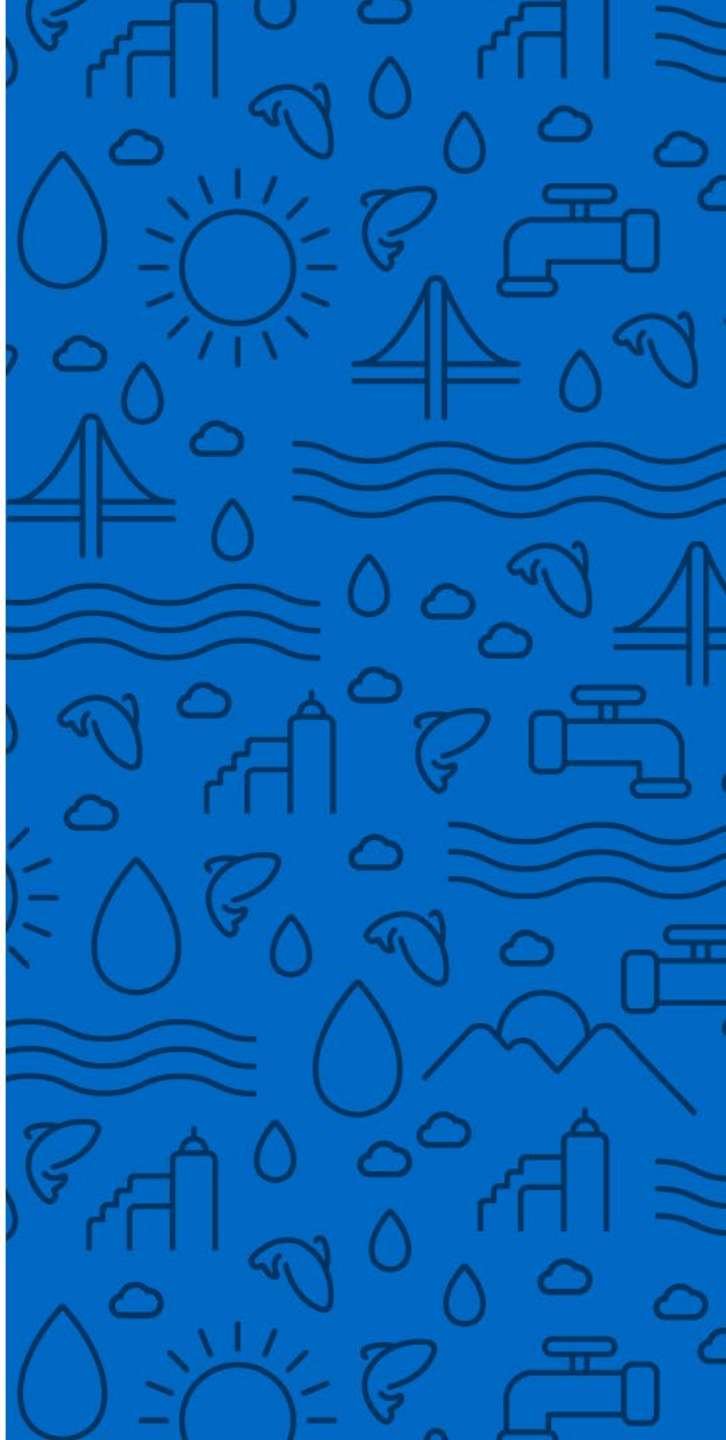
MGD = million gallons per day
AFY = acre-feet per year
DERWA = Dublin San Ramon Services District-EBMUD Recycled Water Authority

San Ramon Valley/DERWA Expansion Project

- Study update: availability of wastewater flow updated based on recent data
- Benefits: utilizes existing facilities, provides up to 3 MGD in supplemental supply to DERWA to serve EBMUD/Central San customers, potential to provide incidental nutrient removal benefits to Central San
- Challenge: potential institutional barriers among three agencies involved



Potable Reuse Project Concepts



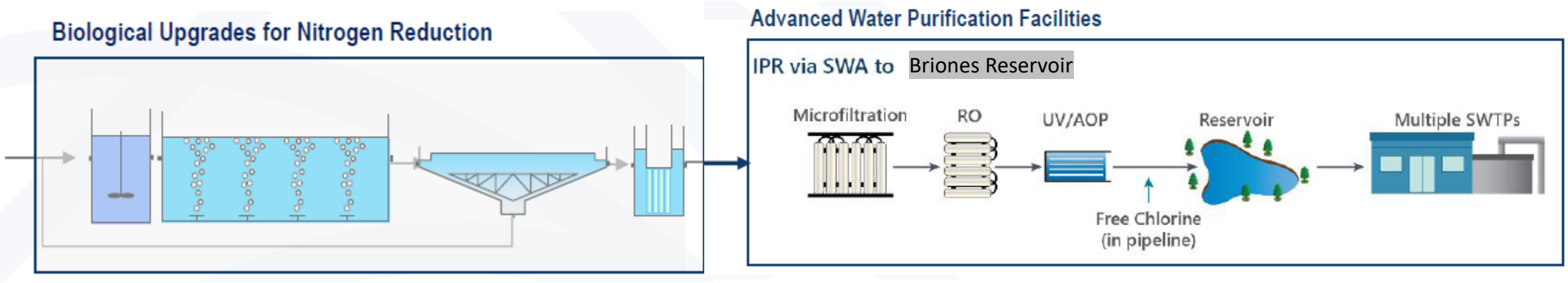
Potable Reuse Project Summary

Project Concept	Average Capacity/Yield	Recommend for Further Evaluation in Recycled Water Strategic Plan Update?
Indirect Potable Reuse – Los Vaqueros Reservoir	Up to 17.9 MGD/20,000 AFY in supply to Los Vaqueros	No – significant institutional and permitting challenges
Indirect Potable Reuse – Briones Reservoir	17.9 MGD/20,000 AFY	Yes – compare against other IPR alternatives
Direct Potable Reuse – Mokelumne Aqueducts	17.9 MGD/20,000 AFY	Yes – compare against other DPR alternatives
Direct Potable Reuse – Walnut Creek WTP	17.9 MGD/20,000 AFY	Yes – compare against other DPR alternatives

WTP = Water Treatment Plant

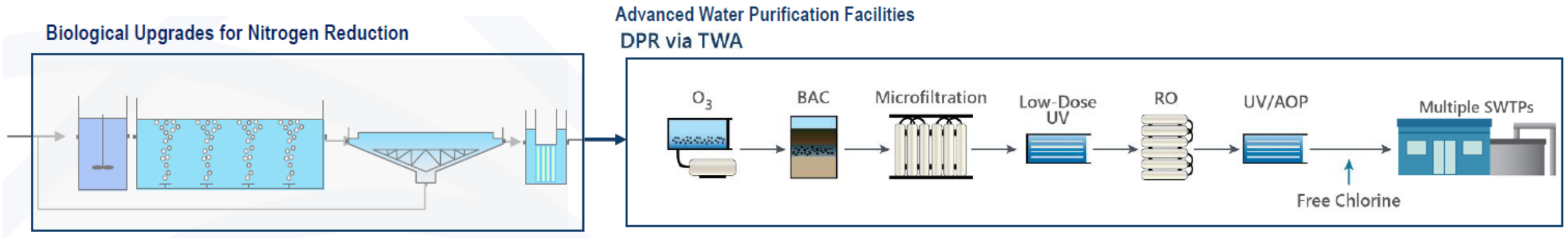
Indirect Potable Reuse Project – Briones Reservoir

- Study update: assumes Central San completes upgrades for nutrient removal
- Benefits: new large drought-resilient local supply, opportunity to learn from IPR projects currently being implemented within the state
- Challenges: new regulatory/water quality requirements for Orinda and Sobrante WTPs, only West of Hills service area would receive purified water



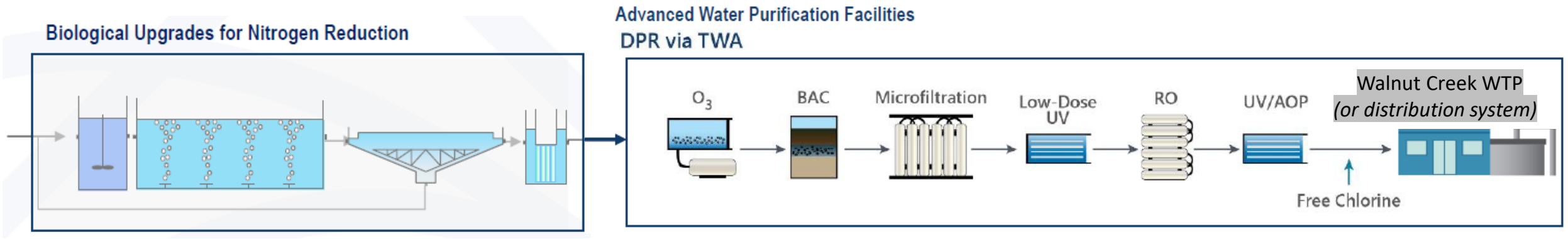
Direct Potable Reuse Project – Mokelumne Aqueducts

- Study update: assumes Central San completes upgrades for nutrient removal
- Benefits: new large drought-resilient local supply, most equitable potable reuse alternative serving EBMUD's entire service area
- Challenges: draft DPR regulations released but no existing projects, significant permitting complexity to deliver purified water to multiple treatment plants and terminal reservoirs

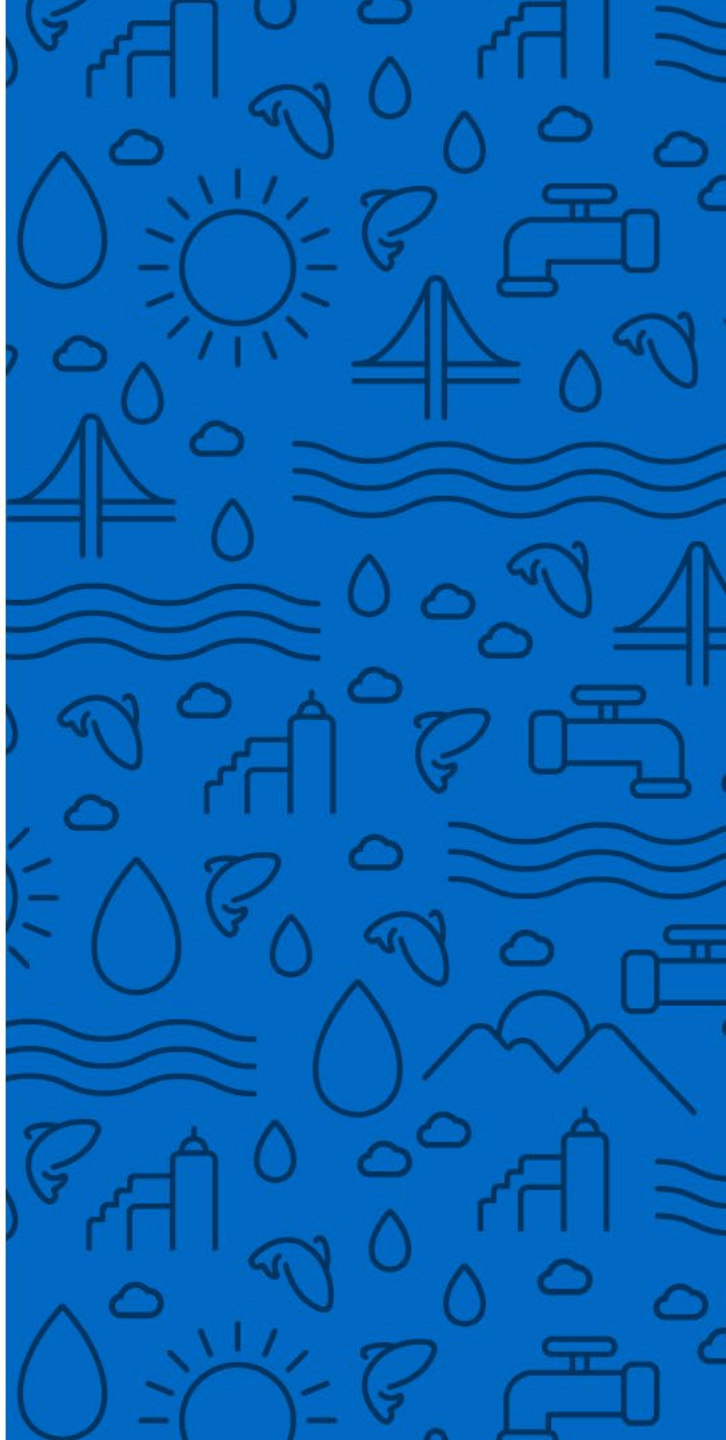


Direct Potable Reuse Project – Walnut Creek WTP

- Study update: assumes Central San completes upgrades for nutrient removal
- Benefits: new large drought-resilient local supply, simpler permitting compared to Mokelumne Aqueducts DPR alternative
- Challenges: draft DPR regulations released but no existing projects, only East of Hills service area would receive purified water



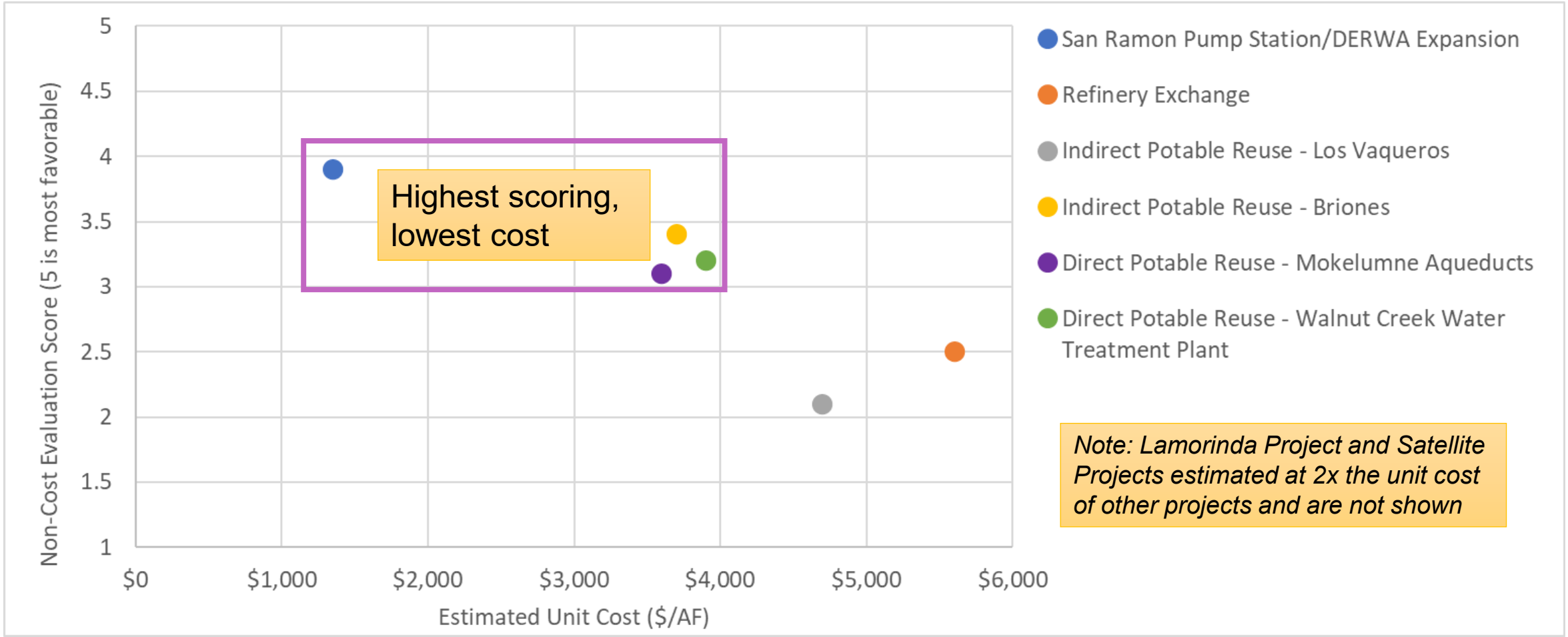
Project Rankings and Unit Costs



Evaluation Criteria

Criteria	Assessment
Regulatory requirements	Challenges, requirements, and time to implement the project from a planning and permitting perspective.
Treatment requirements	Additional treatment needs for beneficial use.
Implementation challenges	Impact on District operations, complexity of the alternative, and how challenging it will be for the District to implement.
Environmental justice/equity	Customer base impacted by new supply and percentage of District service area served with new supply.
Public outreach needs	Level of outreach needed for public acceptance.
Institutional complexities	Number of institutional partners needed (additional agencies involved).
Climate change resiliency	Project resiliency to climate change.

Projects for Further Consideration



Next Steps

- Recommended projects to be further evaluated in District's upcoming Recycled Water Strategic Plan Update 2024
  - Recycled Water Strategic Plan workshop for full Board in early 2024
- Update DERWA Board in early 2024

Questions?

FLOWING
INTO
THE
FUTURE

Employee Housing Feasibility Study

Planning Committee

December 12, 2023

Agenda

- Background
- Concept being explored
- Development site selection
- Next steps

Background

- Lack of affordable housing
- Some employers have developed housing to attract a qualified workforce
- Investigating concept to develop employee housing by leveraging District land assets

Living within (miles)	Number of Employees (1,967)	
	Number	Percentage
5	**301**	**15**
5-10	**248**	**13**
10-15	**406**	**21**
15-20	**340**	**17**
20-30	**238**	**12**
>30	**434**	**22**

Concept being explored

- Lease District land to private developer
- Private developer to fund, entitle, design, construct, and manage property
- In exchange for rent, District will be allocated certain units for exclusive use
- Number of units will be commensurate with the value of lease
- Requires no financial contribution by the District

Potential Benefits

- District discretion on the use of allocated housing units
- Rent generated from allocated units considered non-rate revenue
- Revenue can help fund District affordability efforts
- Funds can also help secure future watershed property

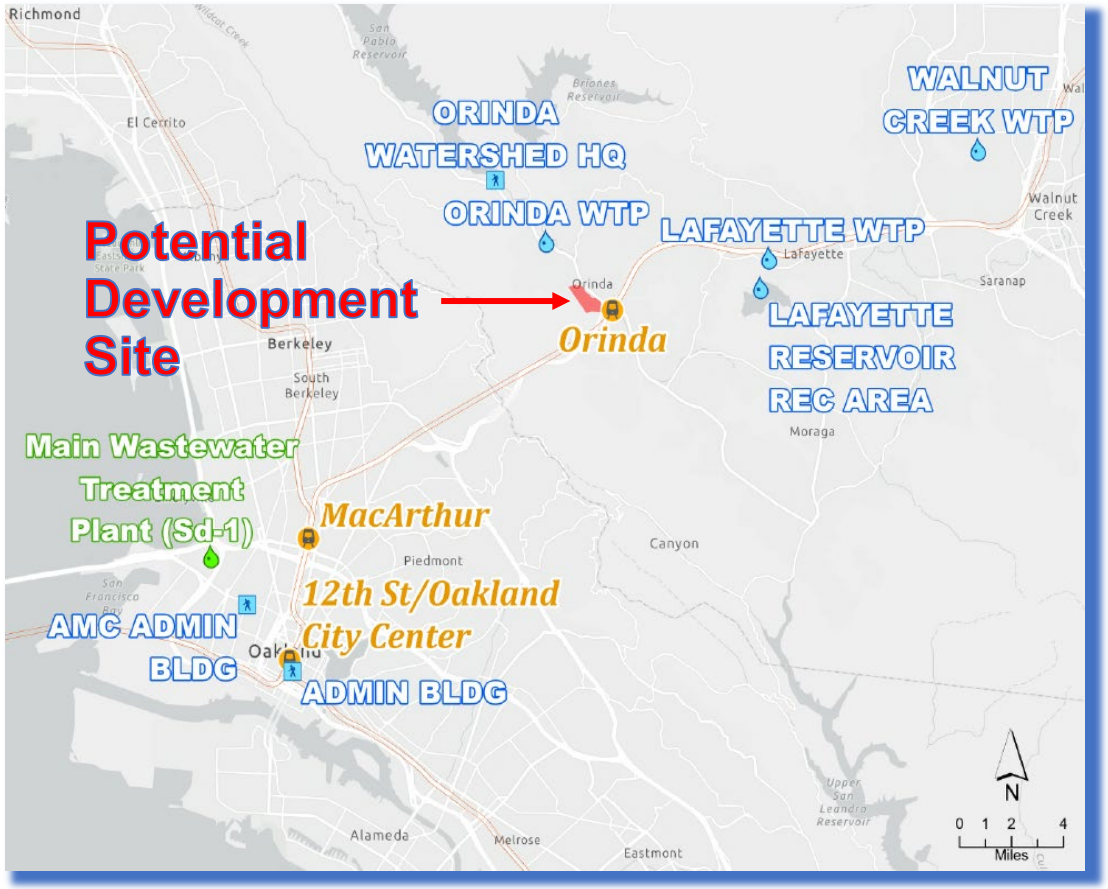
Potential Risks

- Default by development partner

Initial Steps to Determine Viability

- Identify properties with development potential
- Consult with local jurisdiction to determine viability
- Coordinate with Office of General Counsel
- Gauge market interest
- Identifying a development partner

Development Site Selection



Next Steps

- If supported by the Planning Committee, staff will investigate viability of employee housing concept
- Results will be discussed at a future Planning Committee

Feedback and Questions?

FLOWING INTO THE FUTURE