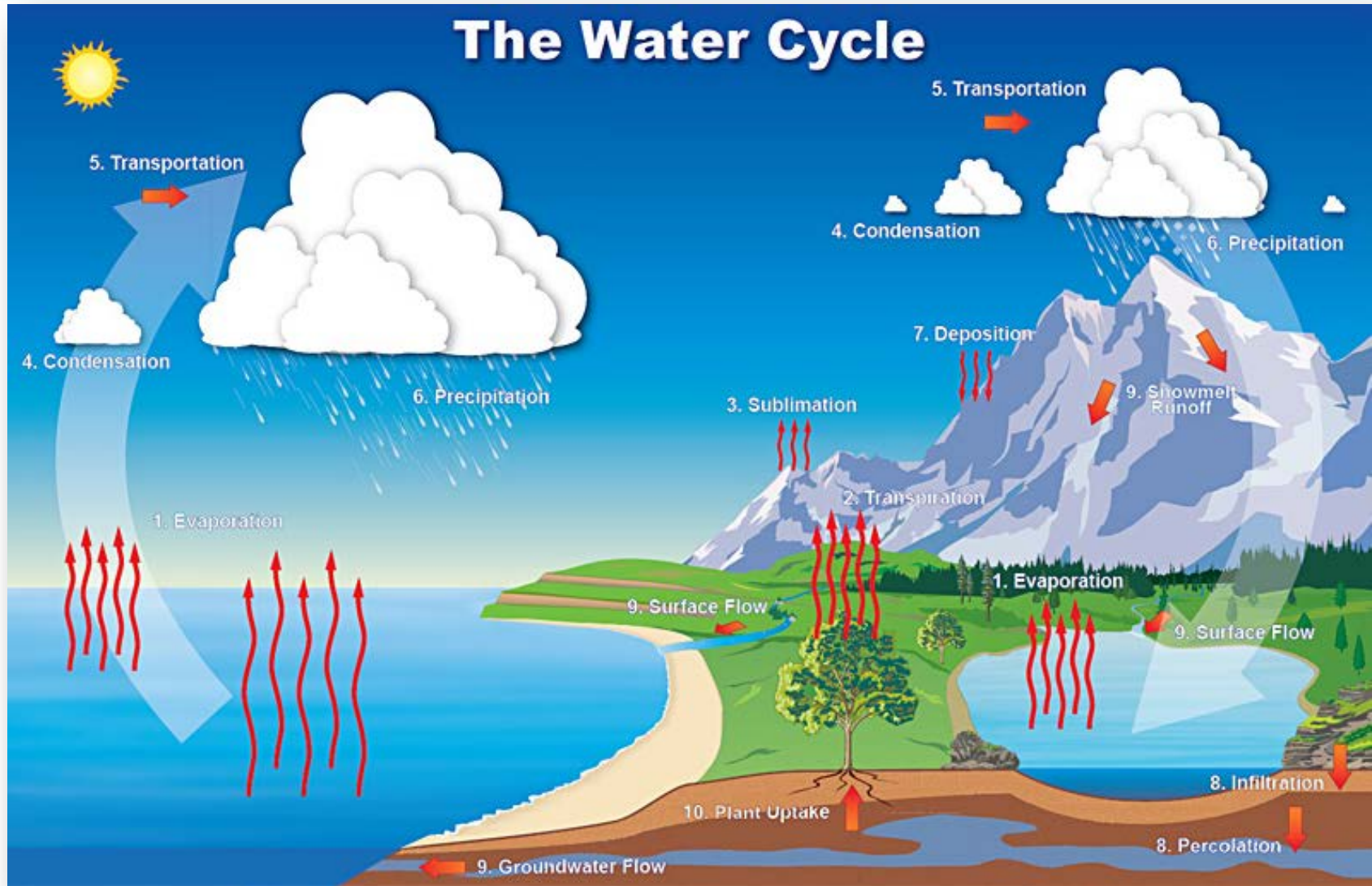




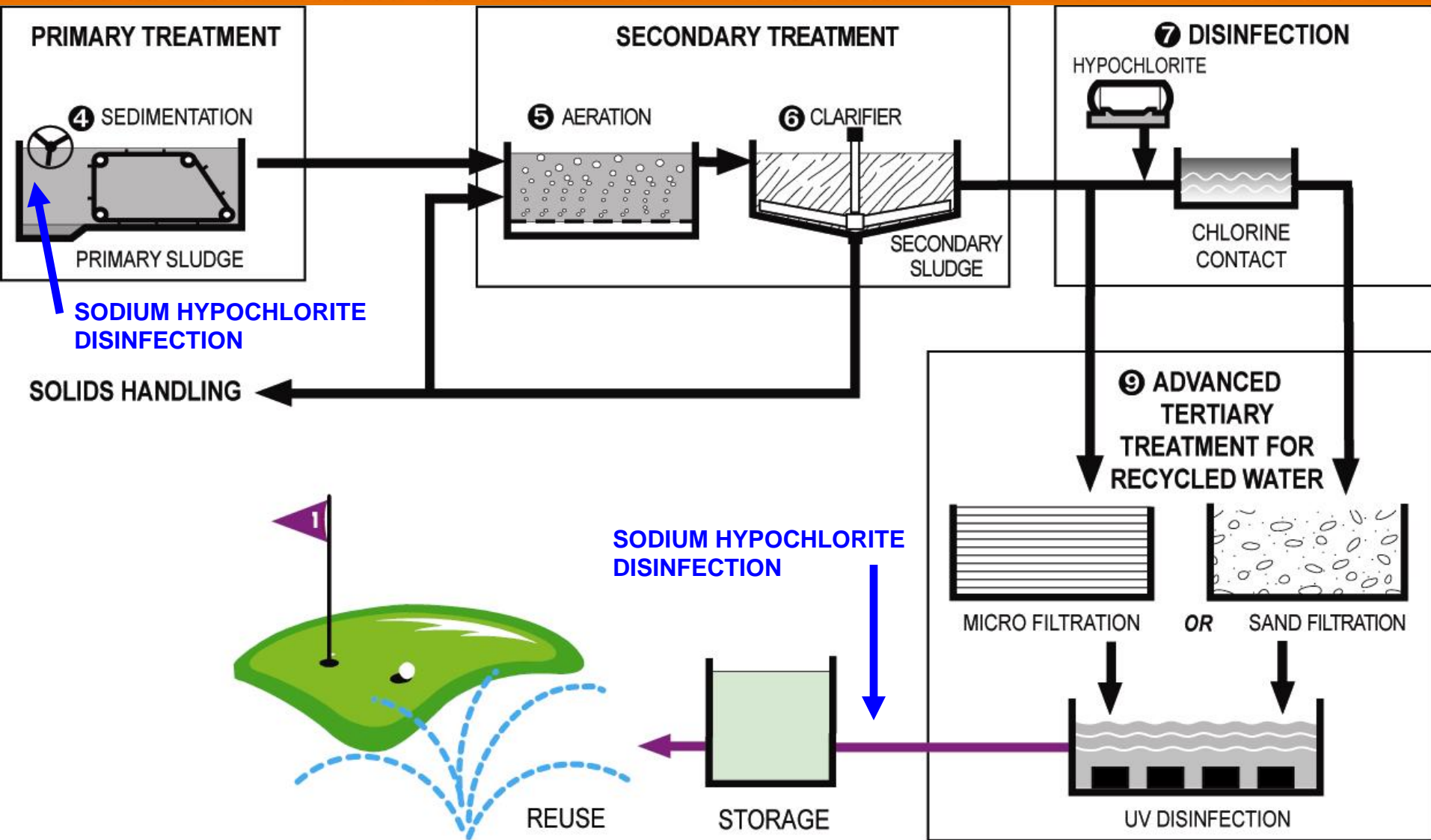
Water Recycling

**Landscape Advisory Committee
May 20, 2019**

All Water is Recycled Water



Making Safe Recycled Water



Making Safe Recycled Water: EBRWP



Recycled Water Quality

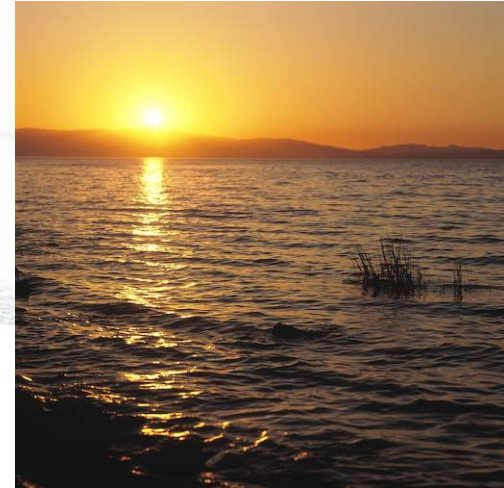
- Tested daily
- Strict public health standards
- Meets California standards for all non-potable reuse
- See water quality averages at ebmud.com/recycledwater



Benefits of Recycled Water



- Saves limited drinking water supply
- Protects landscaping investments during drought
- 20% cost savings vs. potable water rate
- EBMUD pays retrofit costs





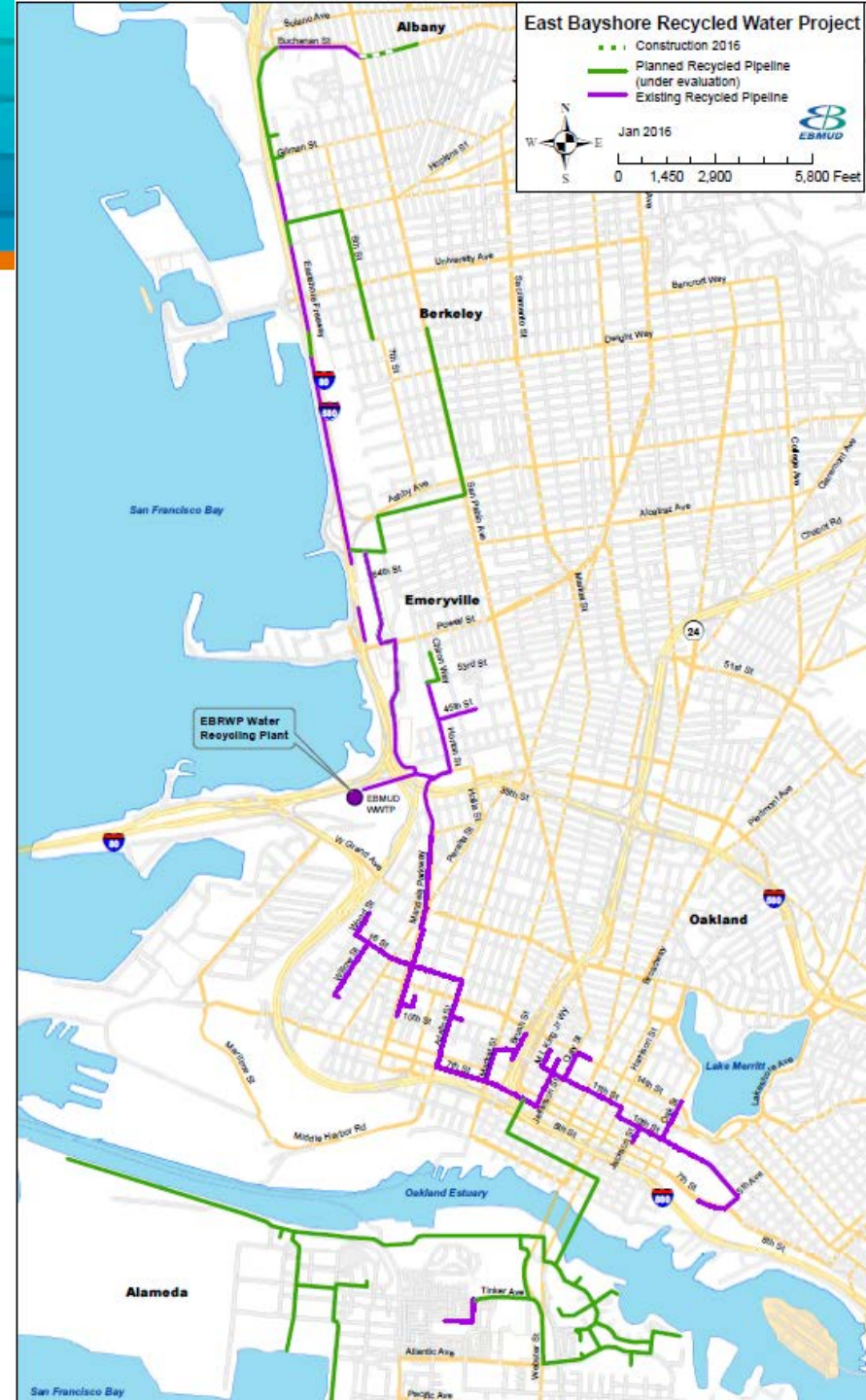
East Bayshore



Mandela Parkway

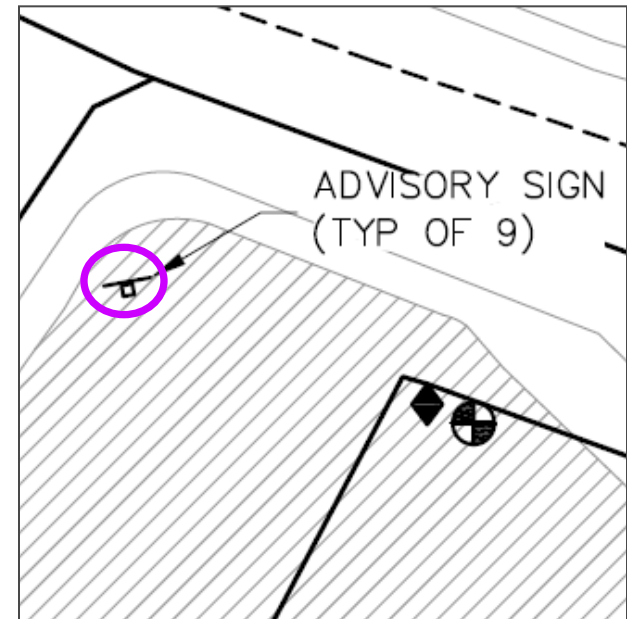


Preservation Park



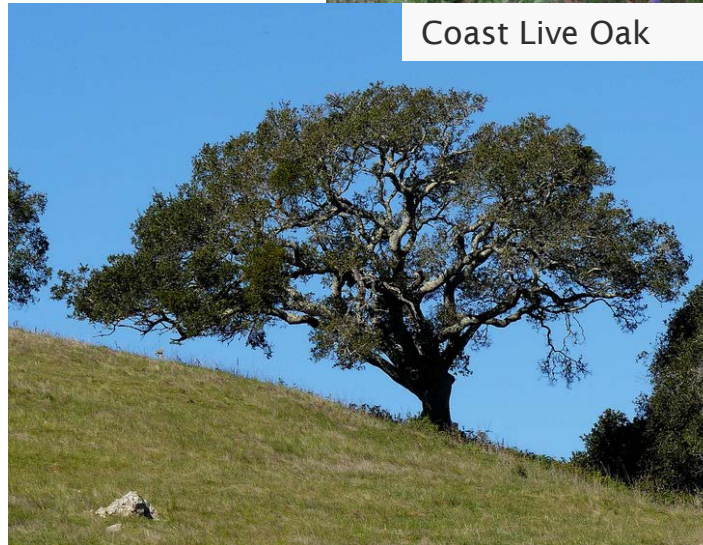
Recycled Water Sites

- Retrofit
- Self-monitoring reports
- EBMUD reviews changes to irrigation system



Salt Tolerance

- Horticultural assessment
- Salt-tolerant plant lists
- Best practices:
 - Drainage
 - Leaching
 - Drip irrigation



Water Recycling Update



East Bay Municipal Utility District
**Updated Recycled Water
MASTER PLAN**
FEBRUARY 2019

**EAST BAY
MUNICIPAL UTILITY DISTRICT**
375 Eleventh Street, Oakland CA 94607
www.EBMUD.com

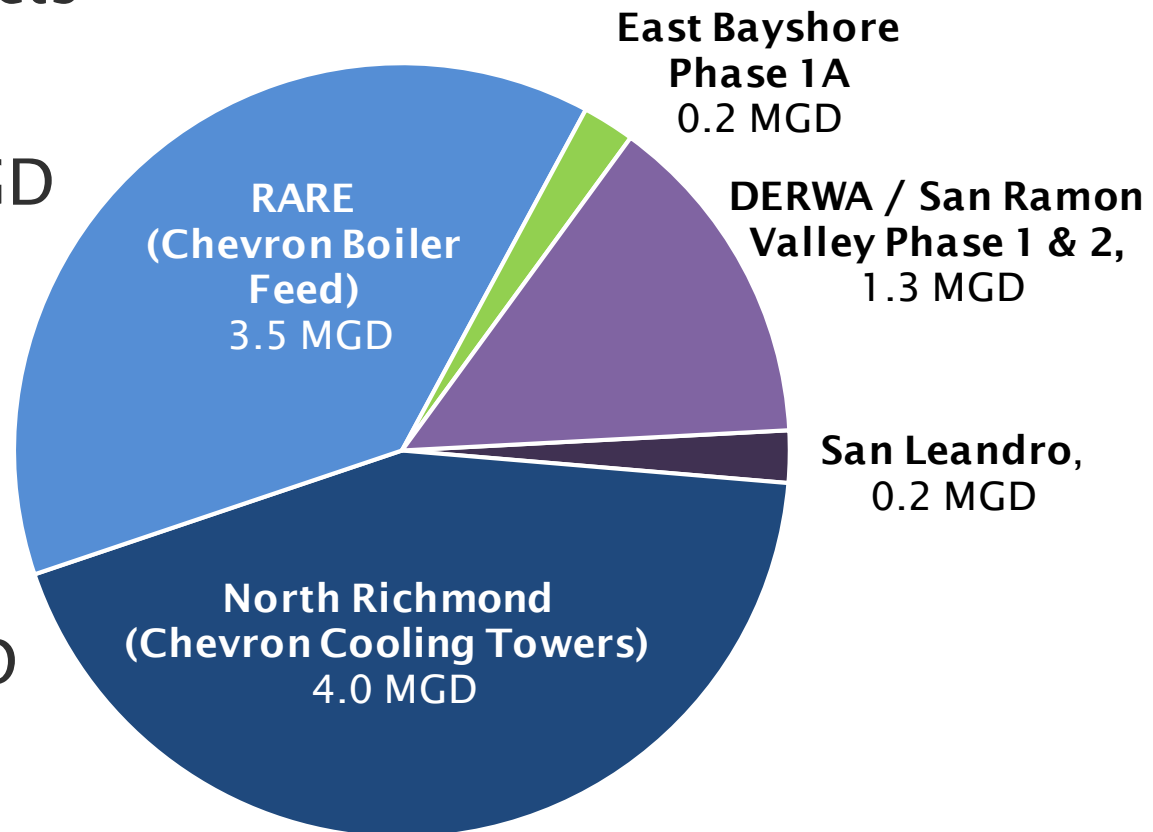
**WOODARD
& CURRAN**

**Brown
AND
Caldwell**

Current Recycled Water Program



- 5 non-potable projects
- Production capacity approaching 9.2 MGD
- Goal of 20 MGD by 2040
- Potential Projects may provide additional 10.8 MGD non-potable water



Recycled Water Master Plan Update Scope



This Recycled Water Master Plan Update is the first to evaluate potable reuse options.

Non-Potable Uses



Industrial



Landscape Irrigation



Recycled Water Truck Program



Commercial

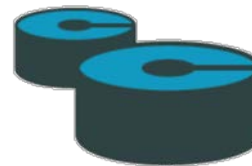
Possible Potable Reuse



Groundwater Augmentation



Reservoir Augmentation



Raw Water Augmentation (to Water Treatment Plant)



Treated Water Augmentation (to Distribution System)

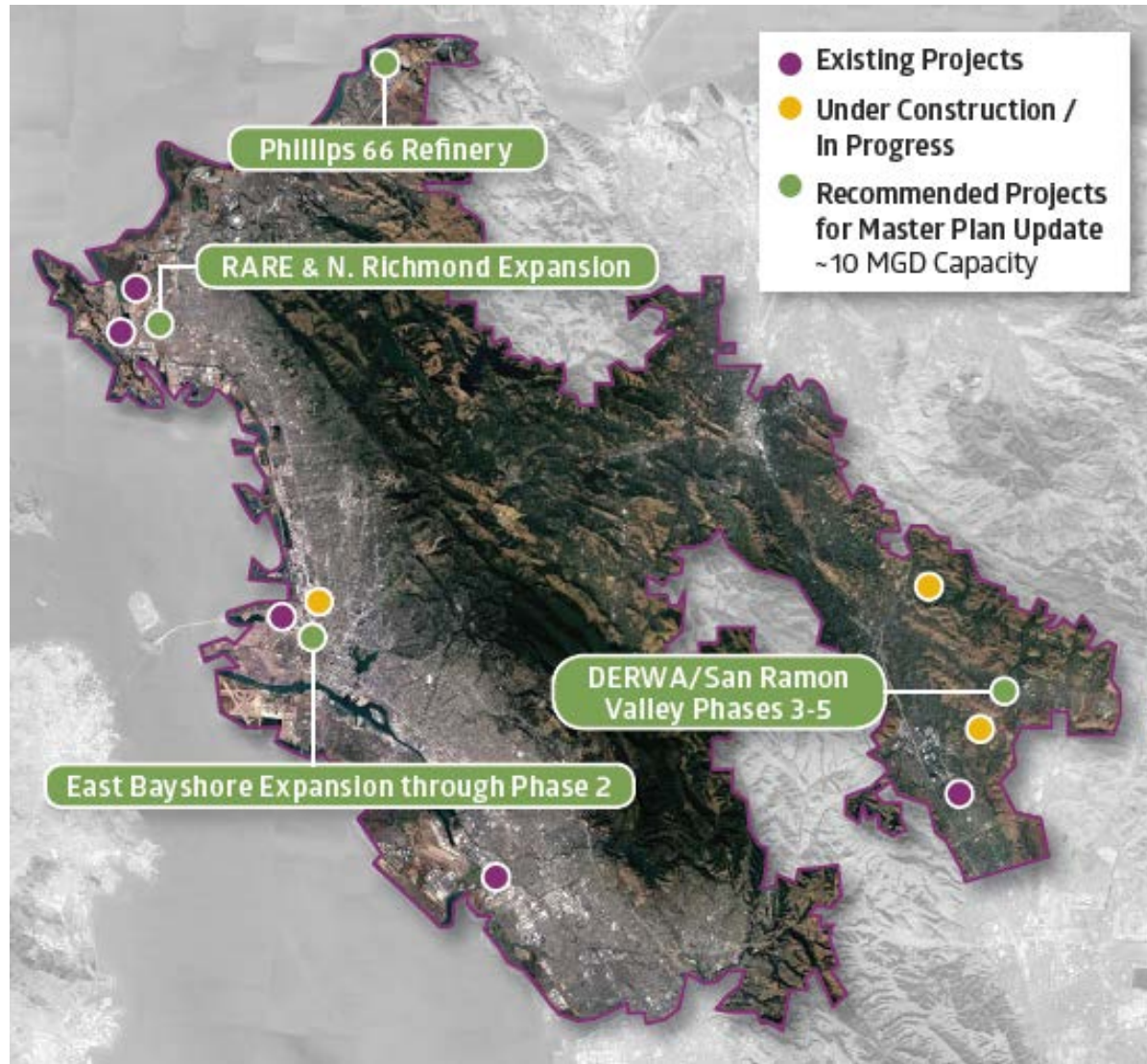
Potable Reuse Alternatives Evaluation



Summary

- Potable Reuse future drivers:
 - Other District supply options are limited
 - WWTPs are planning upgrades for nutrient removal
 - Statewide recycling criteria are adopted for raw and treated water augmentation
 - Other potable reuse projects have demonstrated success

Recommended Projects



Thank You from EBMUD



Photo by: Saxon Holt

Ben Glickstein

Office of Water Recycling

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ben.glickstein@ebmud.com

Backup slides

State Regulations



- **SBx7-7 (20x2020)**
 - Based on an average of 2003-2007 usage
 - Only counts potable water usage (recycled water counted as credit).

- **Long-Term Framework (Executive Order B-37-16)**
 - Variances
 - An urban retail water supplier may have certain unique uses that can have a material effect on its urban water use objective. DWR will recommend appropriate variances and, for each variance, the associated threshold of significance for consideration in adoption by the State Water Board. Appropriate variances may include, but are not limited to, the following (CWC §10609.14 **AB**):
 - Significant landscaped areas irrigated with recycled water having high levels of total dissolved solids