



February 11, 2014
LA WaterReuse Chapter Meeting

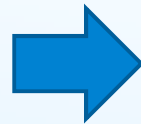
Direct Potable Reuse

Observations and Lessons Learned

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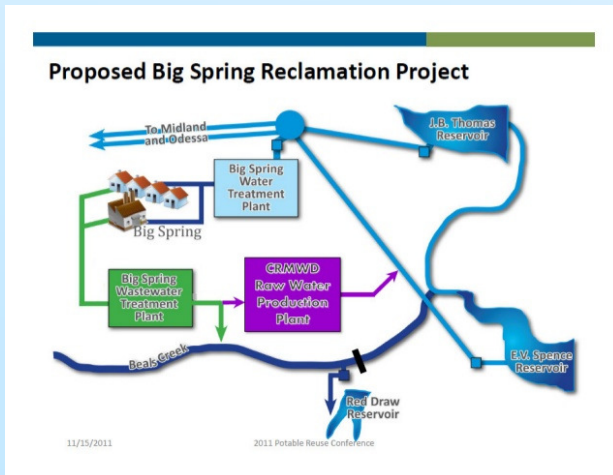
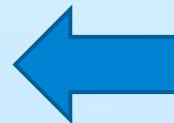
Montebello Forebay



A wide-angle photograph of a large-scale industrial water treatment plant. The facility consists of numerous rectangular concrete basins filled with water, arranged in a grid-like pattern. Metal walkways with railings run along the edges of the basins, providing access for maintenance and monitoring. In the background, more industrial structures and piping are visible under a clear sky. An inset image in the bottom right corner shows a close-up of a blue sky with white clouds.



A wide-angle photograph of a large concrete dam, likely the Hoover Dam, viewed from a high vantage point. The dam is a massive, light-colored concrete structure with a central spillway. Behind the dam is a large, calm reservoir of blue water. The surrounding landscape is arid, with dry, brownish-yellow hills and mountains in the background. The foreground shows rocky, uneven ground with some sparse vegetation. The sky is clear and blue.



Observation – Surface water discharge regulations provide driver for DPR

- State Board policy prompts potable reuse



- IPR limitations

- Regulatory requirements associated with surface water discharges
- Conveyance and retreatment infrastructure requirements (\$)



Observation- Full advanced treatment provides sufficient level of barriers

Microfiltration/Ultrafiltration



Reverse Osmosis

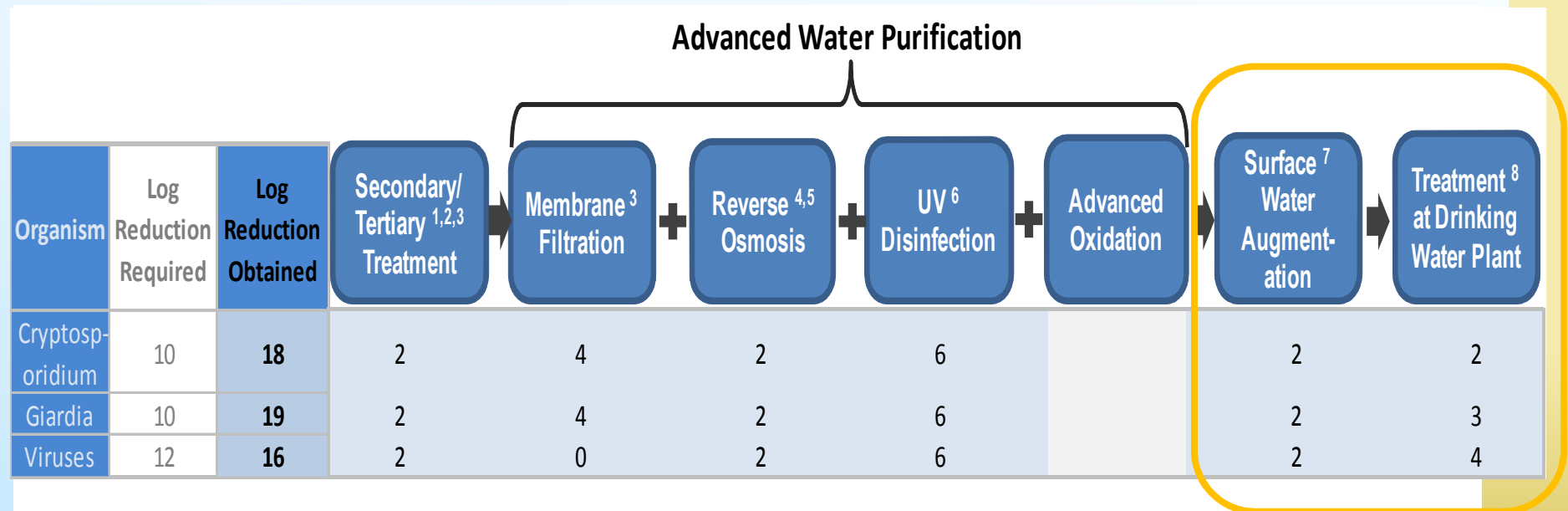


Ultraviolet Light /
Hydrogen Peroxide



Issue is “infallible reliability”

Observation– There is no such thing as “infallible reliability”

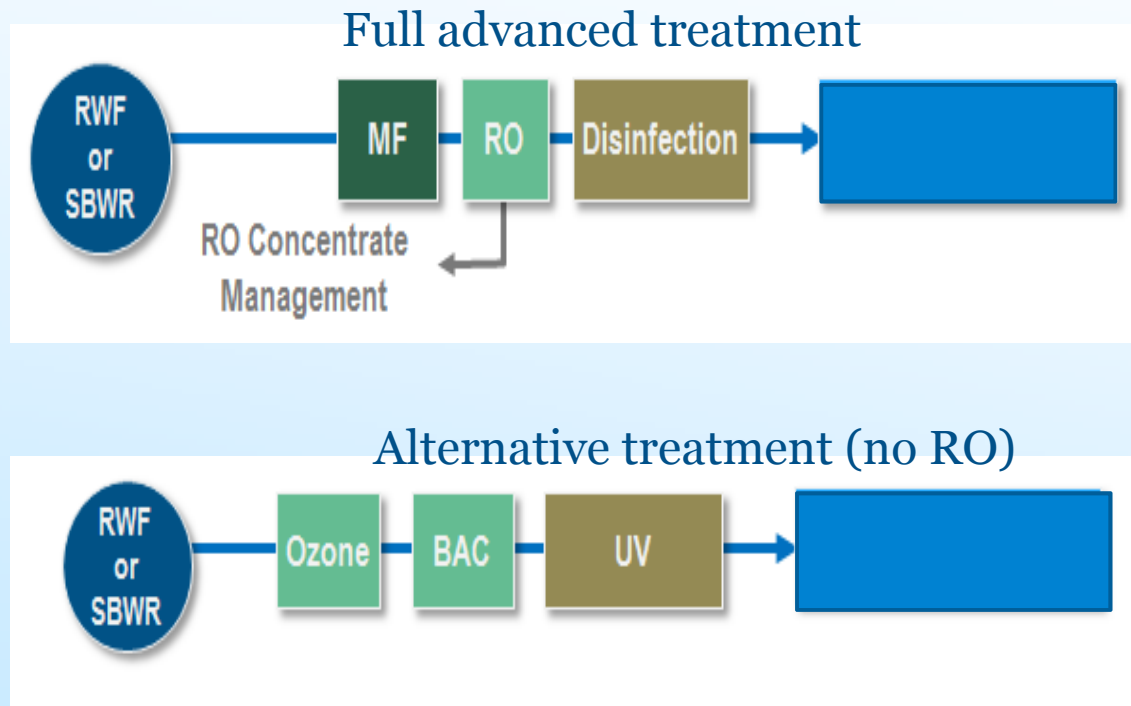


Observation – Focus of DPR research on “replacing” environmental buffer

- Treatment
- Blending
- Time to respond

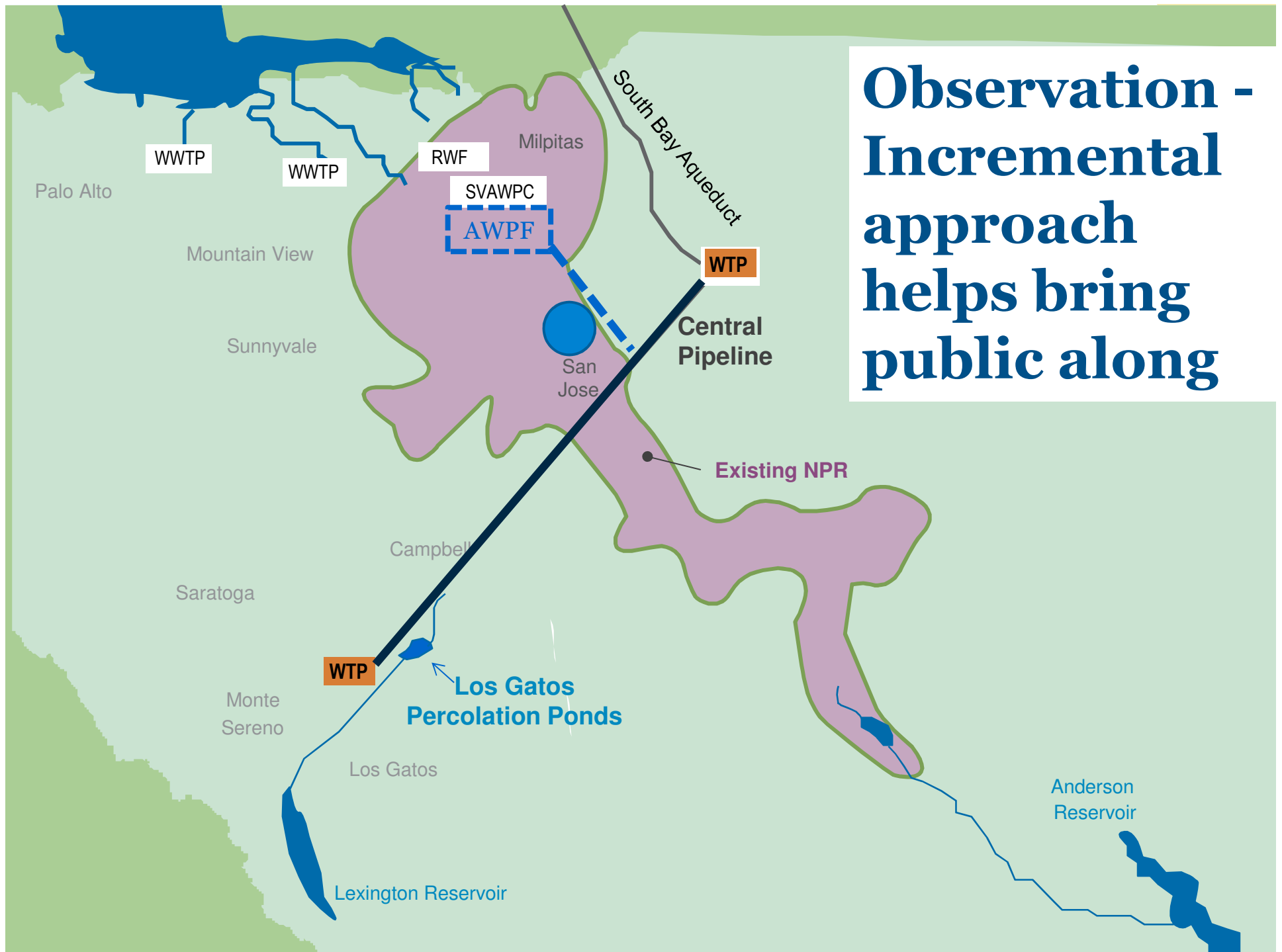


Observation – DPR will require some amount of salt removal (RO)



RO provides tool in salt/nutrient management

**Observation -
Incremental
approach
helps bring
public along**



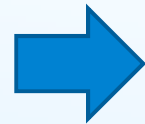
Observation – Gain support of business and environmental community and leverage

Friends of Infrastructure

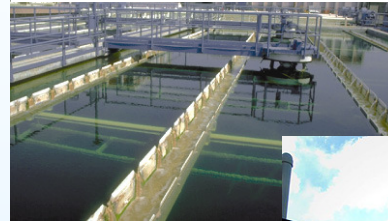


Evolution of Potable Reuse

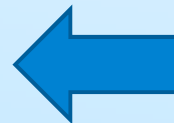
Montebello Forebay



Water Factory 21



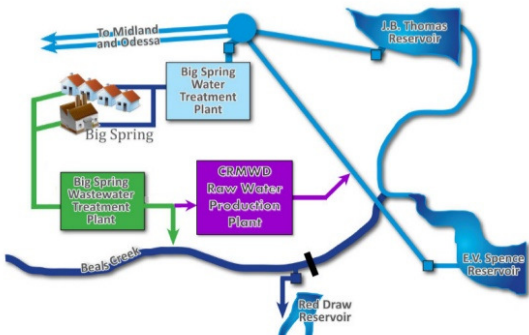
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San Diego Reservoir Augmentation



Proposed Big Spring Reclamation Project



11/15/2011

2011 Potable Reuse Conference



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