Water Resource Task Force Meeting

Hollywood Southern Regional WWTP Effluent Disposal and Reclaimed Water Conceptual Master Plan

January 28, 2011

4321-016-06

Interim Planning

Interim planning focuses on ….

- **Reduction of outfall nutrient loads**
- Maintaining peak effluent disposal capacity

Nutrients are allowed through 2025 – but capped

Hollywood SRWWTP Maximum Allowable Cumulative Nutrient Loading – Years 2009 through 2025		
Description	**Total Nitrogen**	**Total Phosphorus**
Cumulative Load: 2009 - 2018	8,788	705
Cumulative Load 2019 - 2025	1,166	389
Total Cumulative Load 2009 - 2025	**9,953**	**1,094**

Total Nitrogen is limiting parameter

The rule gives the Hollywood SRWWTP three potential nutrient reduction strategies:

- **Strategy 1 –** Continue current treatment process. Build AWT plant in 2018.
- **Strategy 2 –** Shift flow to deep injection wells.
- **Strategy 3 –** Continue current treatment process and build 100% reuse system by 2018.

Nutrient reduction strategy comparison

- **Strategy 1 –** Build AWT plant in 2018 $320M
- **Strategy 2 –** Shift flow to deep injection wells $0 +/-
- **Strategy 3 –** Implement 100% reuse $1B

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Strategy 2 is the preferred approach

- **Strategy 2 –** Shift flow to deep injection wells.

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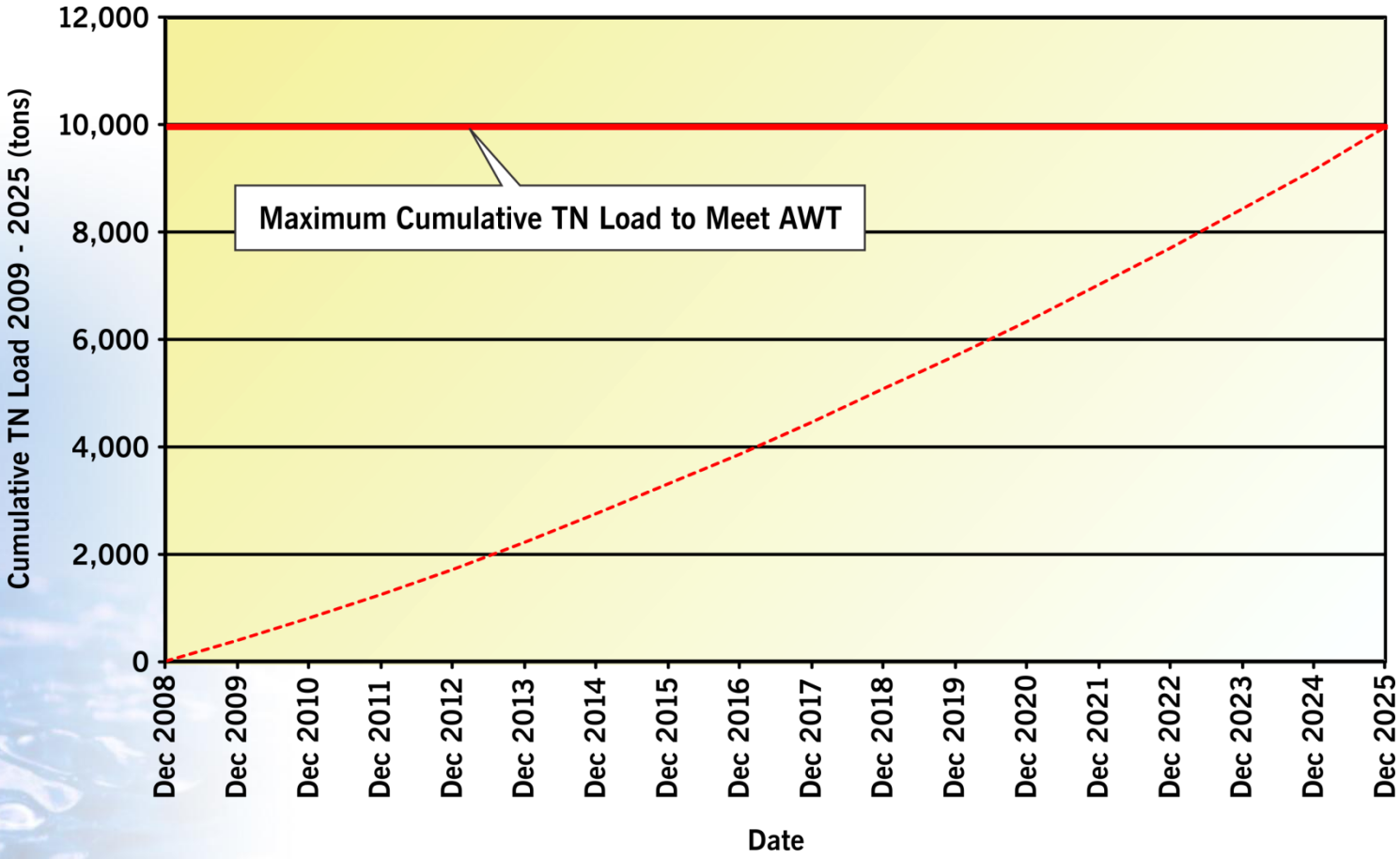
Outfall allocation model developed based on flow projections



Approximately 29 mgd must be shifted to deep injection wells

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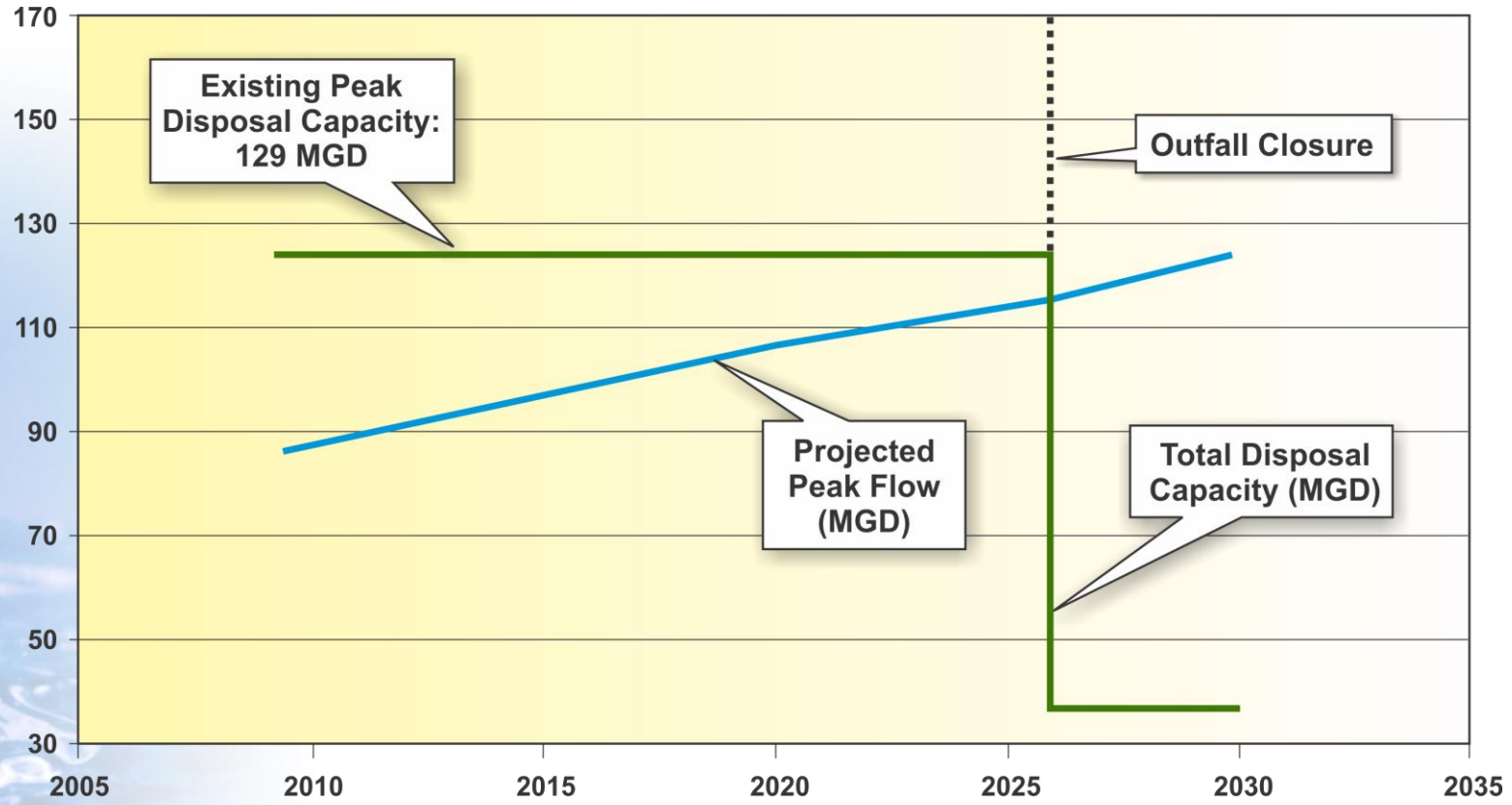
Interim planning focuses on ….

- Reduction of outfall nutrient loads
- **Maintaining peak effluent disposal capacity**

Current projections indicate that existing peak disposal capacity is adequate through 2025



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Long Term Planning

Long term planning focuses on ….

- **Replacement of outfall disposal capacity lost following closure**
- Best way to achieve reuse mandate

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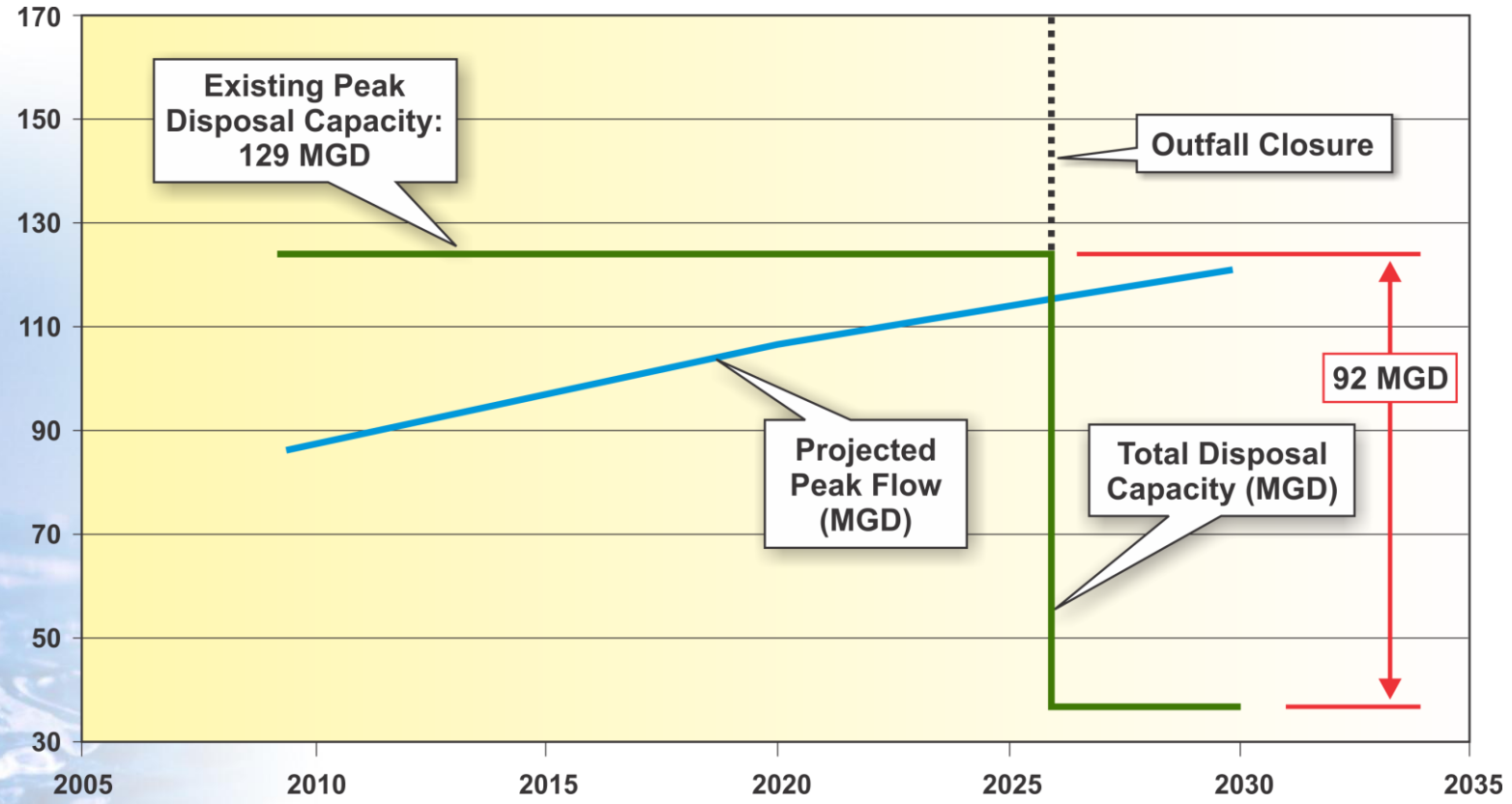
Outfall closure will create a gap in peak flow disposal capacity



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Long term planning focuses on ….

- **Replacement of outfall disposal capacity lost following closure**
- **Best way to achieve reuse mandate**

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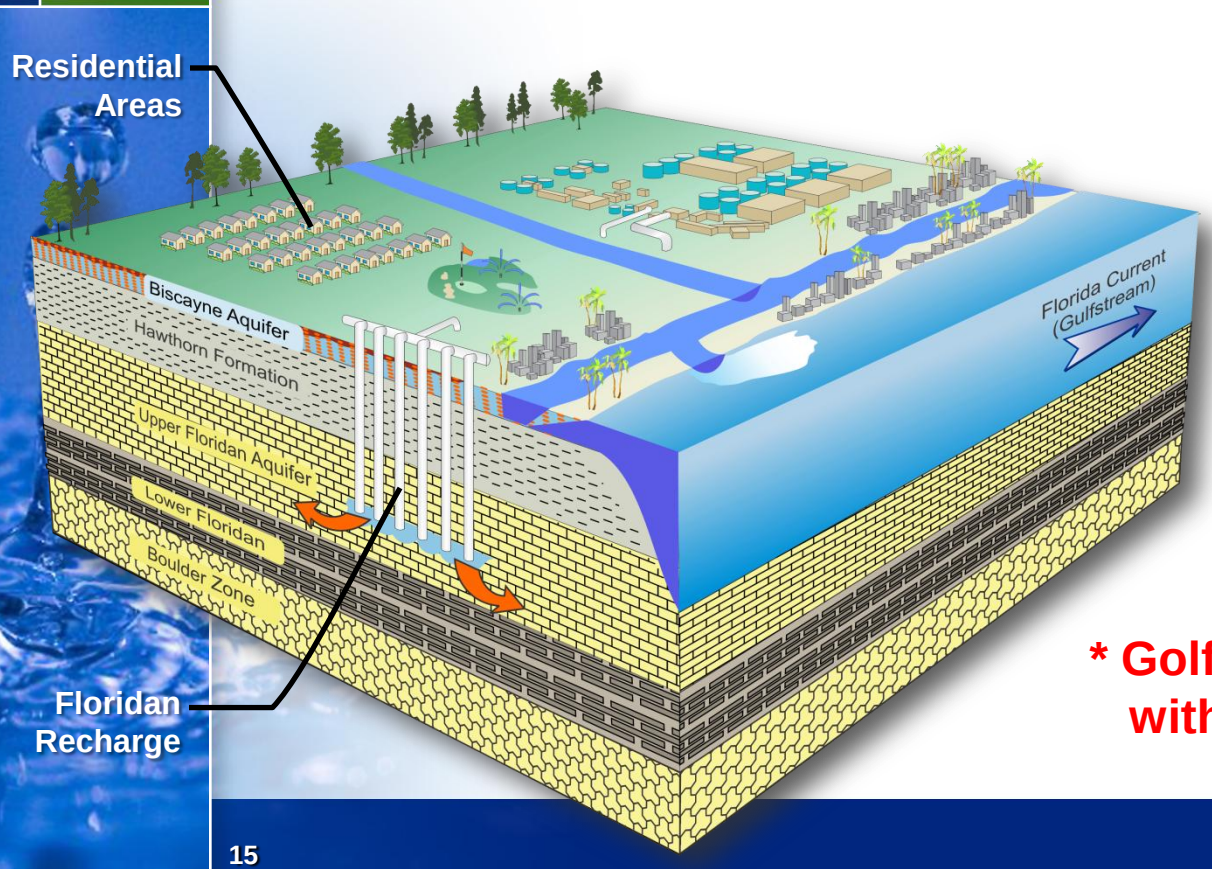
Strategies available for 60% reuse compliance

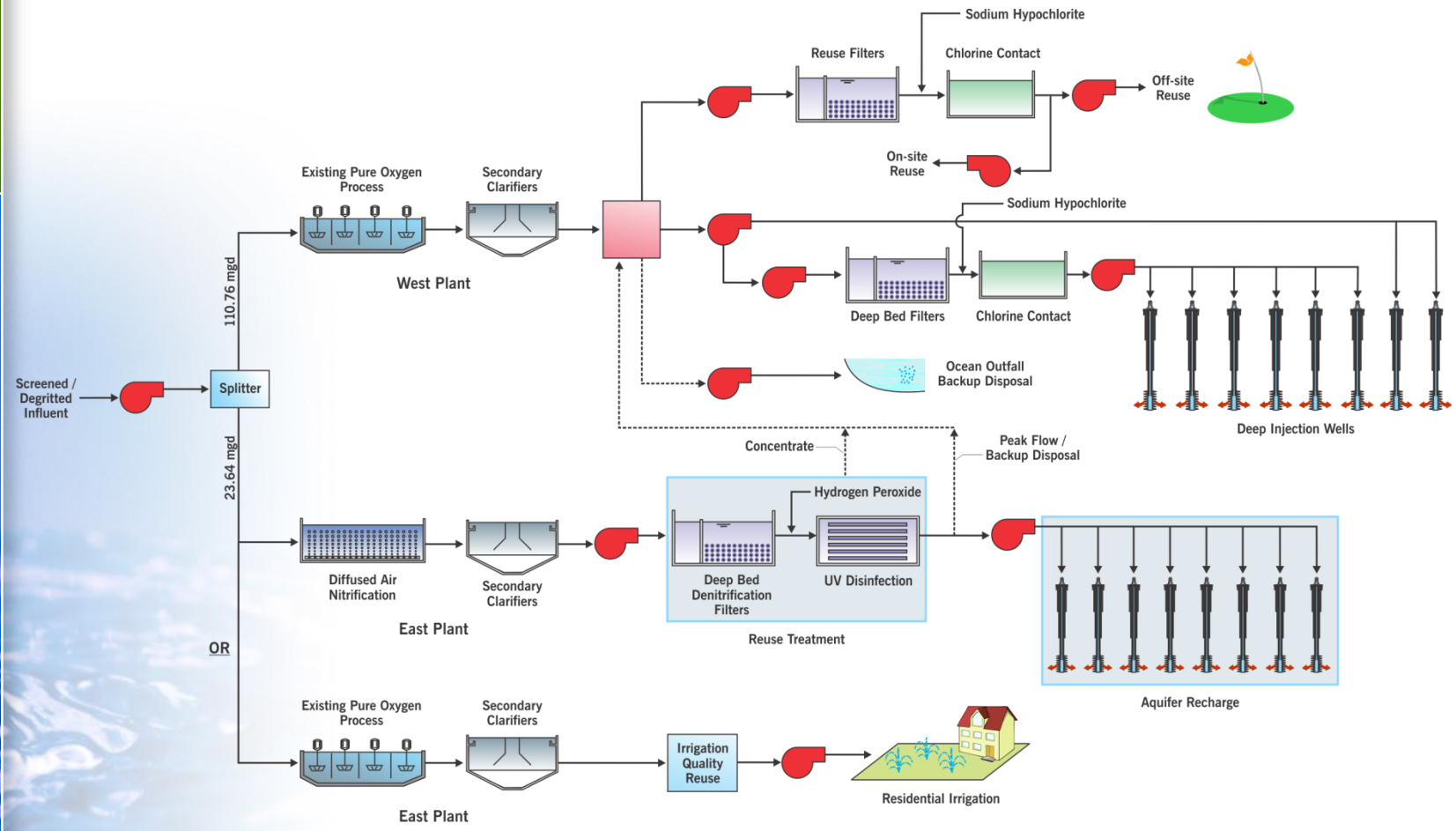
- Biscayne Aquifer Recharge
- Floridan Aquifer Recharge



- Irrigation & process water uses:
  - Large areas* (parks, cemeteries, etc.)
  - Residential
  - Industrial
  - Cooling towers

*** Golf courses already irrigate with SRWWTP reuse**

All considerations include expansion of large user reuse and injection well systems



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What is the estimated overall cost?

	Estimated Cost (2009 $)
Biscayne Aquifer Recharge	$327 - 379 million
Floridan Aquifer Recharge	$157 - 212 million
Residential Reuse	$549 million

Implementation timetable

QUESTIONS?