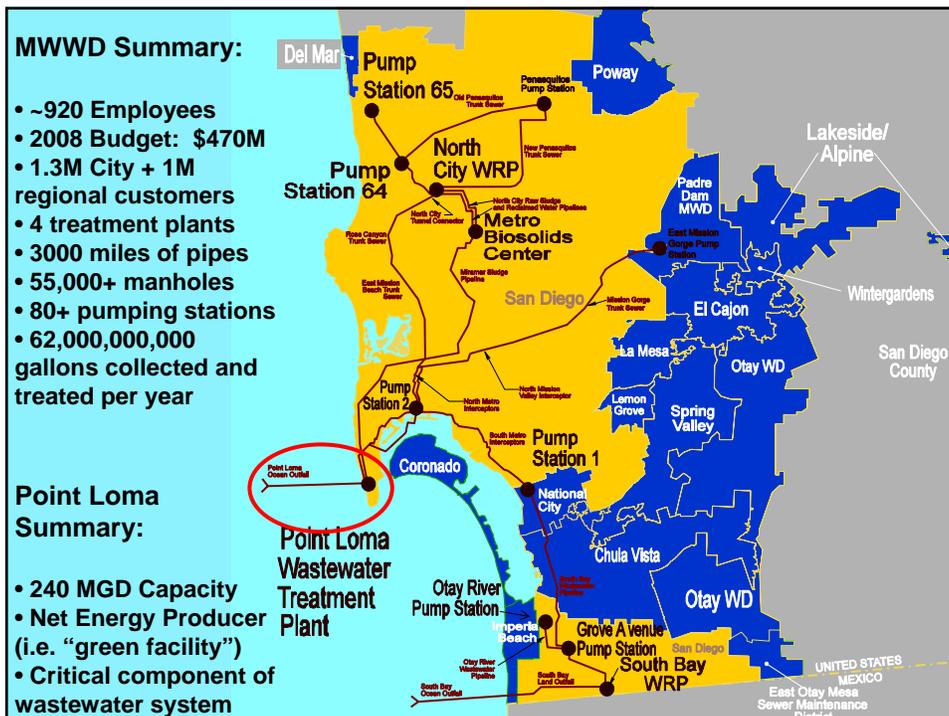


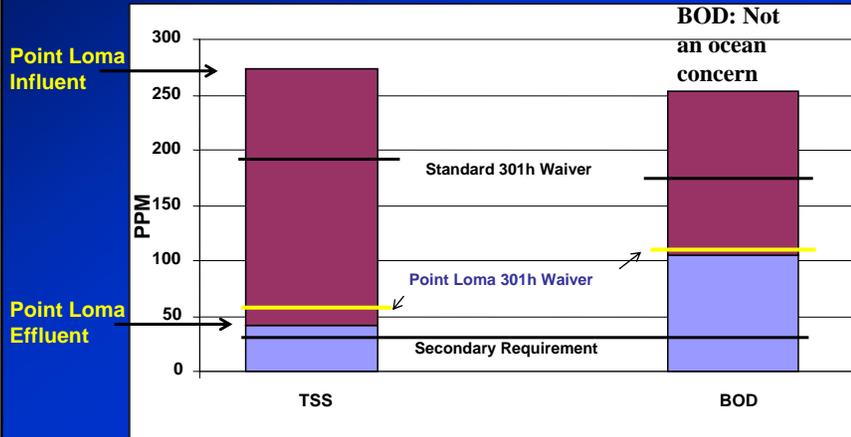
# Point Loma Secondary Treatment Discussion

Brief for Council

Dr. Timothy Bertch  
Metropolitan Wastewater Department  
City of San Diego



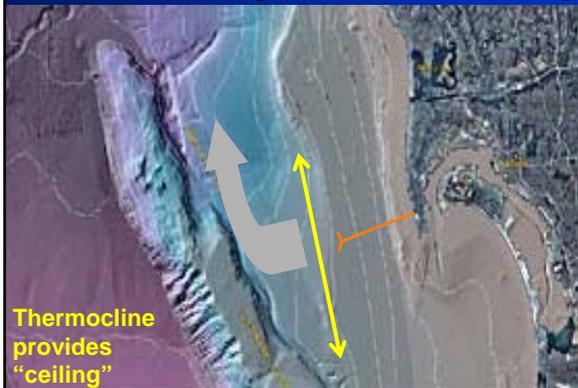
# Point Loma Wastewater Treatment Modified Permit Summary



San Diego Removes over 85% of Suspended Solids

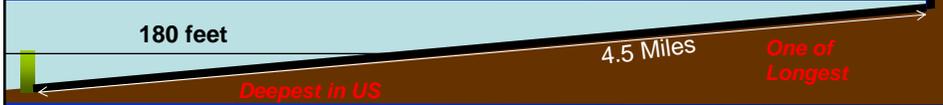
3

# Point Loma Outfall Unique: Optimal for Dispersion



Thermocline, Bottom Slope, Outfall Design and Cross Currents make San Diego Outfall very effective

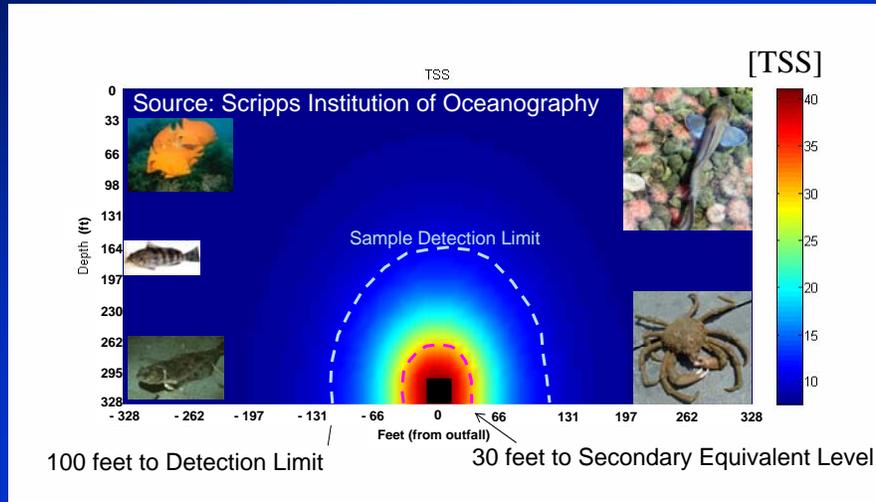
Pt. Loma



Point Loma is different: evaluated need for secondary at this site!

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## Suspended Solids: Looking along the outfall

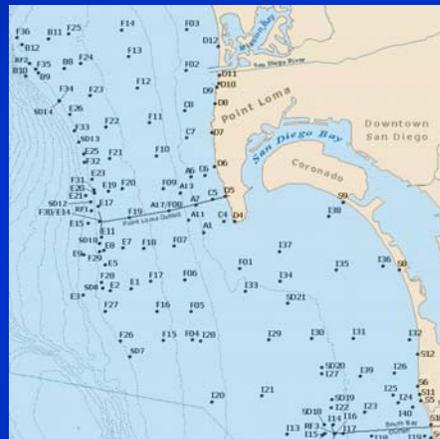


**TSS can not be detected more than 100 feet from outfall**

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## Extensive Ocean Monitoring Effort

- **Water Quality**
  - Shoreline and kelp beds
  - Offshore
- **Ocean Floor Sediments**
  - Chemical Constituents
  - Grain Size
- **Ocean Biological Communities**
  - Seafloor Invertebrates
  - Bottom Dwelling Fish
- **Bioaccumulation Studies**
  - Trawl Caught Fish
  - Rig Caught Fish



150,000 Samples/year: NO ADVERSE IMPACT  
**VALIDATED BY SCRIPPS INDEPENDENT  
 SCIENTIFIC REVIEW COMMITTEE**

**Ocean data supports deferring Secondary Treatment**

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## Secondary Treatment Power Demands

Point Loma (MWhr/day)	Advanced Primary	Secondary
Green Power Generation Capacity	210	210*
Plant Power Requirements	55	→ <u>464</u>
Excess Power (Power Needed)	155	(254)
Cost Savings (Cost) to System	\$2.2M/year	(\$15.6M)/year

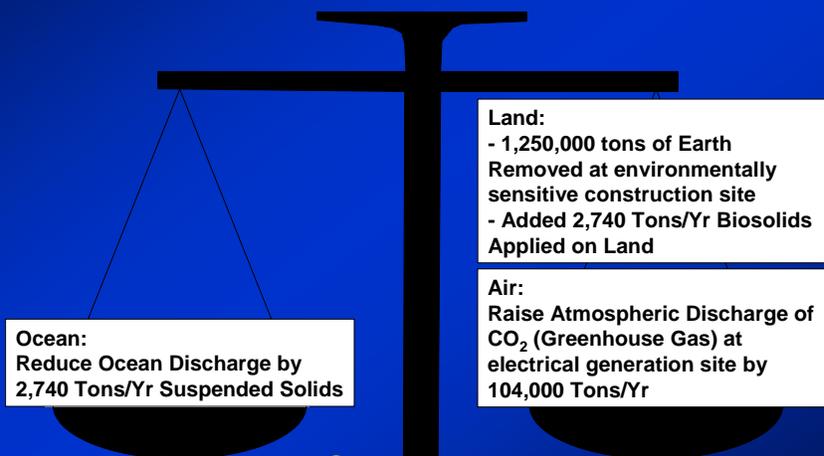
\* Additional 38 MWhr/day capacity can be obtained with additional upgrade to existing plant

The secondary treatment cost just for electricity is  
\$17.8M per year

Point Loma WWTP would shift from 'green' electricity provider to a 'Top 20' user in San Diego:  
San Diego Committed to Minimizing Carbon Footprint

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## Weighing the Overall Environmental Impact of Secondary Treatment at Point Loma



Point Loma Secondary Treatment:  
a Net Negative Environmental Impact

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# How much is 104,000 tons?

Yearly CO<sub>2</sub> Discharge resulting from Secondary Treatment = Weight of USS REAGAN



**104,000 TONS**

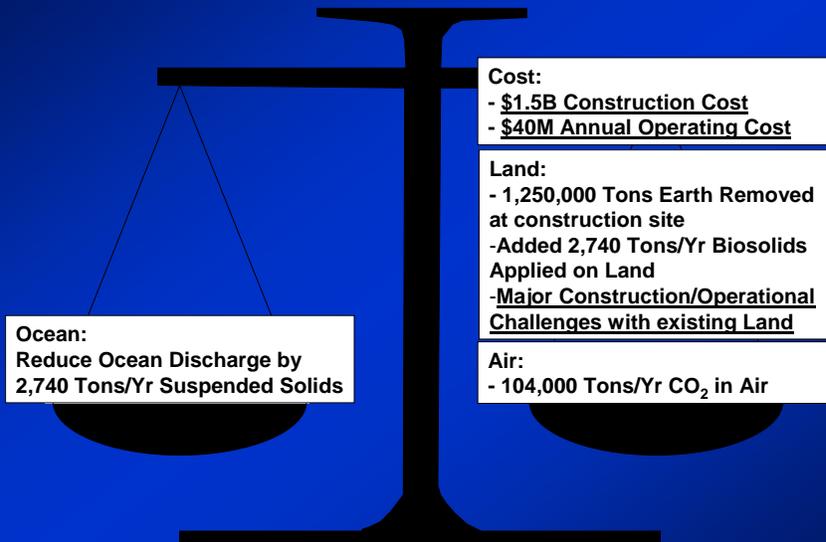
Point Loma Secondary Treatment: Marginal Benefit of Solids Transfer from Ocean to Landfill offset by Global Warming CO<sub>2</sub> Release

## The Decision was about Secondary Treatment at Point Loma

- **Based on science**
  - Ocean Monitoring data reviewed by Independent Scientific Review Committee
- **Deferring Secondary Treatment the right choice**
  - Overall net negative environmental effect due to greenhouse gas emissions
  - Submit the waiver
    - If no waiver submitted, City obligated to build Secondary Treatment
- **Continue to monitor; move to Secondary Treatment if/when conditions change**



## But what about COST?



**Decision made on Science / Environmental criteria**  
**Cost and space constraints reinforce decision** 11

## The Decision was about Secondary Treatment at Point Loma

- **Based on science**
  - Ocean Monitoring data reviewed by Scientific Technical Review Committee
- **Deferring Secondary Treatment the right choice**
  - Overall net negative environmental effect due to greenhouse gas emissions
  - Submit the waiver
    - If no waiver submitted, City obligated City to Secondary Treatment
  - **Any Secondary project challenging**
  - **Unneeded Burden to Ratepayers**
- **Continue to monitor; move to Secondary Treatment if/when conditions change**



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