Water Conservation
Environmental Management System

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Background of the Port of San Diego
The Port of San Diego’s Mission

To balance regional Economic Benefits, Recreational Opportunities, Environmental Stewardship and Public Safety while protecting Tidelands Trust resources on behalf of the citizens of California.
Six Categories

- Water
- Energy
- Waste Management
- Sustainable Development
- Sustainable Business Practices
- Air
City of San Diego
Mandatory Restrictions

• Effective June 1, 2009: *Level 2 Drought Alert*

• Restrictions relevant to Port operations:
  – Irrigate at certain times, 3 days a week, for 10 mins
  – Stop or repair all leaks within 72 hours of discovery
  – Stop operation of ornamental fountains that spray water into air
  – Stop washing down paved areas
  – Stop irrigation water waste
What will upcoming water conservation efforts consist of?

- Requires a balance of:
  - Environmental stewardship
  - Parks
  - Tourism
  - Recreational opportunities
  - Community service
Water Use Baseline – FY 07/08

- FY 07/08 water use baseline helps us prepare for upcoming escalated restrictions.
  - Where do we use the most water?
  - Where do reductions make the most business sense?
  - What impacts are expected?
Total Water Use: 213,060,694 Gallons (284,841 HCF)
*1 HCF = 748 Gallons
Sample Reduction Scenarios

Reduction of Irrigation

• Result: Affected parks
  – Stressed and/or brown turf areas
  – Affected general public

• Potential Impacts:
  – More Port staff time available for other landscape care
  – Visible sign to community of Port’s stewardship
  – Damage to turf during events
  – Loss of events
  – Dissatisfied park visitors
Sample Reduction Scenarios

Reduction of Water at Multi Use Meters

• Result: Affected recreational opportunities
  – Affected boaters
• Potential Impacts:
  – Financial benefit to the Port (if charge boaters for water)
  – Loss of recreational boaters and their revenue
Other options?

- Gray Water Recycling Systems
  - California Plumbing Code currently restricts commercial buildings from installing gray water recycling systems.
  - The Port is weighing in on proposed legislative changes to change this Code.

- Reclaimed Water
  - Infrastructure is not available on Port tidelands.
EMS Benefits & Challenges

Benefits
• Helpful guidelines
• Communicating up
• Interdepartmental collaboration

Challenges
• Changing regulations due to climate/rainfall
## FY 07/08 Baseline

<table>
<thead>
<tr>
<th>Category</th>
<th>FY 07/08 Total Use</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings</td>
<td>24,350,392 gallons</td>
<td>11%</td>
</tr>
<tr>
<td>Ship Use (Cruise &amp; Cargo)</td>
<td>53,208,232 gallons</td>
<td>25%</td>
</tr>
<tr>
<td>Comfort Stations</td>
<td>8,559,738 gallons</td>
<td>4%</td>
</tr>
<tr>
<td>Multi Use Meters</td>
<td>20,792,530 gallons</td>
<td>10%</td>
</tr>
<tr>
<td>Irrigation</td>
<td>106,149,802 gallons</td>
<td>50%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>213,060,694 gallons</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
## Cruise Ship Calls 05-09

<table>
<thead>
<tr>
<th>Year</th>
<th>Calls</th>
<th>Passengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>220</td>
<td>611,024</td>
</tr>
<tr>
<td>2006</td>
<td>182</td>
<td>526,886</td>
</tr>
<tr>
<td>2007</td>
<td>238</td>
<td>810,395</td>
</tr>
<tr>
<td>2008</td>
<td>255</td>
<td>921,360</td>
</tr>
<tr>
<td>2009</td>
<td>208</td>
<td>811,000 (estimate)</td>
</tr>
</tbody>
</table>
## FY 07/08
### Cruise vs. Cargo Water Usage

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Ship Water Use</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST</td>
<td>51,680,068 gallons</td>
<td>97%</td>
</tr>
<tr>
<td>TAMT</td>
<td>816,816 gallons</td>
<td>1.5%</td>
</tr>
<tr>
<td>NCMT</td>
<td>711,348 gallons</td>
<td>1.5%</td>
</tr>
</tbody>
</table>
What are other Ports doing?

• Port of LA
  – Taking voluntary measures (retrofitting toilets, Smart irrigation systems, monitoring water use).
  – Currently under Level 1 Drought Watch with some water use prohibitions.
  – City of LA expected to go to Level 2 Drought Alert this year.
  – No voluntary steps to take overall reductions at this point.

• Port of Long Beach
  – Taking voluntary measures (evaluating irrigation systems & using native plants).
  – Currently under Level 1 Drought Watch with some water use prohibitions.
  – No voluntary steps to take overall reductions at this point.
How are we doing now?
Year To Date

Jan & Feb 2008 vs Jan & Feb 2009

HCF*

*1 HCF = 748 gal