



Restoring Water Quality in Texas Surface Waters

Matagorda Bay Dissolved Oxygen and pH TMDL Project

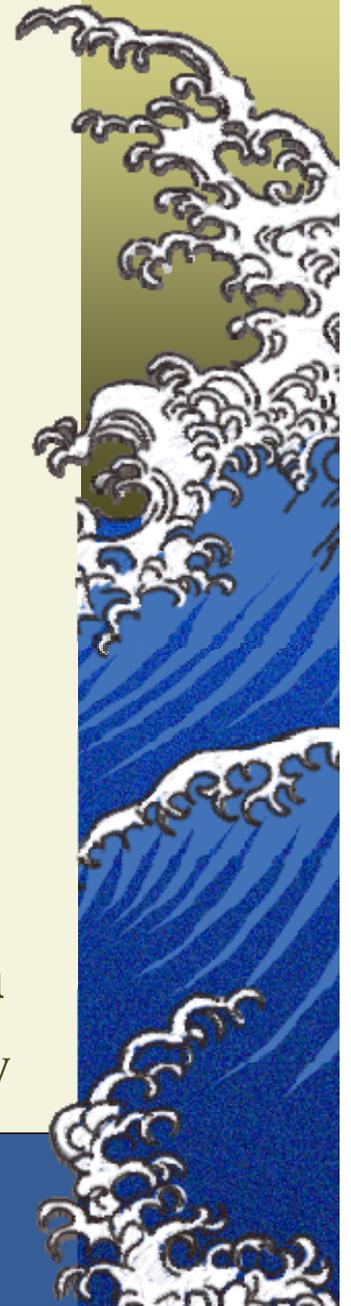
February 20, 2007

Roger Miranda, Project Manager

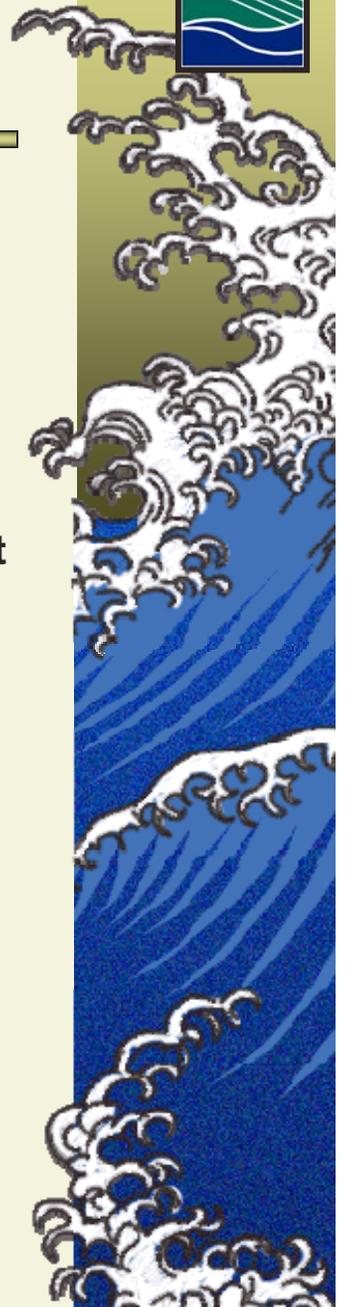
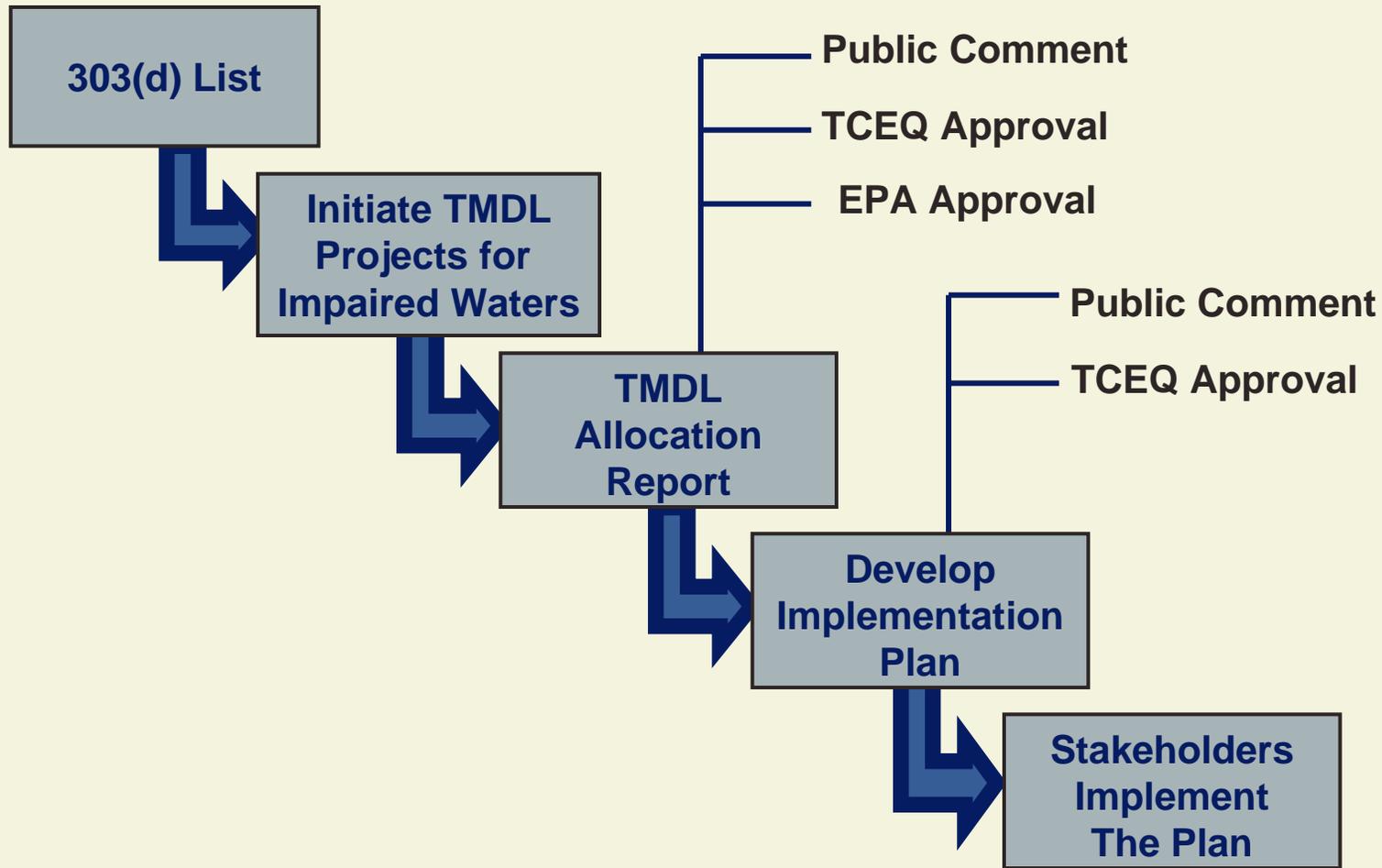
Earlene Lambeth, Outreach Coordinator

Total Maximum Daily Load Program

Texas Commission on Environmental Quality



TMDL Development Process



Texas TMDL Program



- ▲ Clean Water Act
 - ▲ list impaired waters
 - ▲ take action to restore
- ▲ Impaired
 - ▲ does not meet the criteria for support of its beneficial uses
 - ▲ *Texas Surface Water Quality Standards.*
- ▲ *Texas Water Quality Inventory and 303(d) List*
- ▲ Restoration
 - ▲ establish a total maximum daily load
 - ▲ develop an implementation plan.



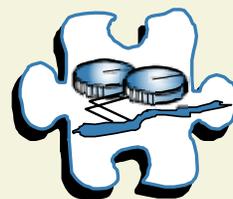
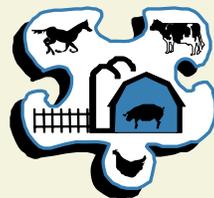
Key Elements of the Program

▲ **TMDL – Total Maximum Daily Load**

Determines the maximum amount (load) of a pollutant that a water body can receive and still maintain the beneficial uses, and allocates this load to pollutant sources in the watershed.

▲ **Implementation Plan**

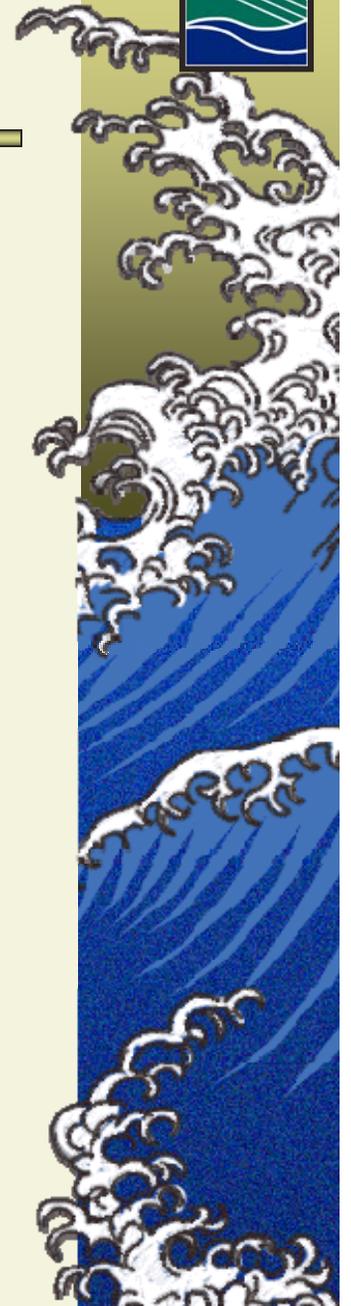
A detailed description of the regulatory and voluntary management measures necessary to achieve the pollutant reductions identified in a TMDL.



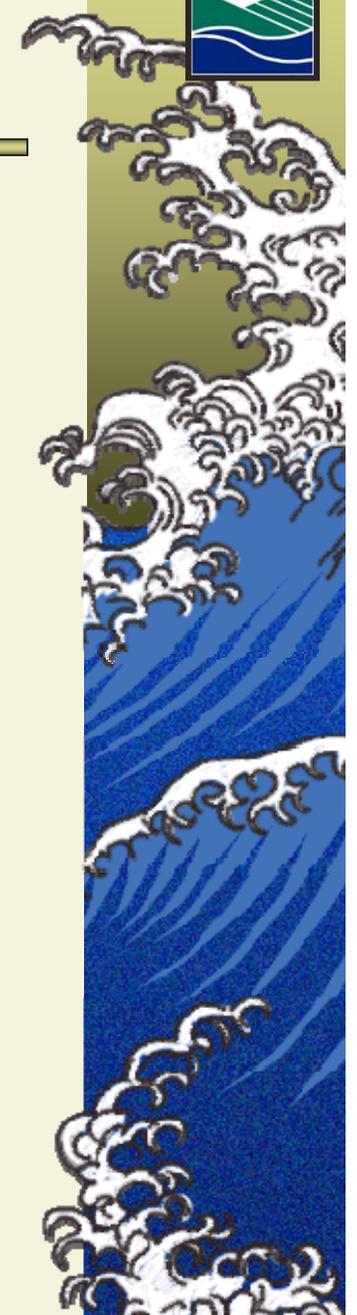
2004 303(d) List



- ▲ **Carancahua Bay (2456)**
 - ▲ **High pH**
 - ▲ **Bacteria Oyster Waters**
- ▲ **Matagorda Bay (2451)**
 - ▲ **Depressed Dissolved Oxygen**
 - ▲ **Bacteria Oyster Waters**
- ▲ **Tres Palacios Bay (2452)**
 - ▲ **Depressed Dissolved Oxygen**
 - ▲ **Bacteria Oyster Waters**

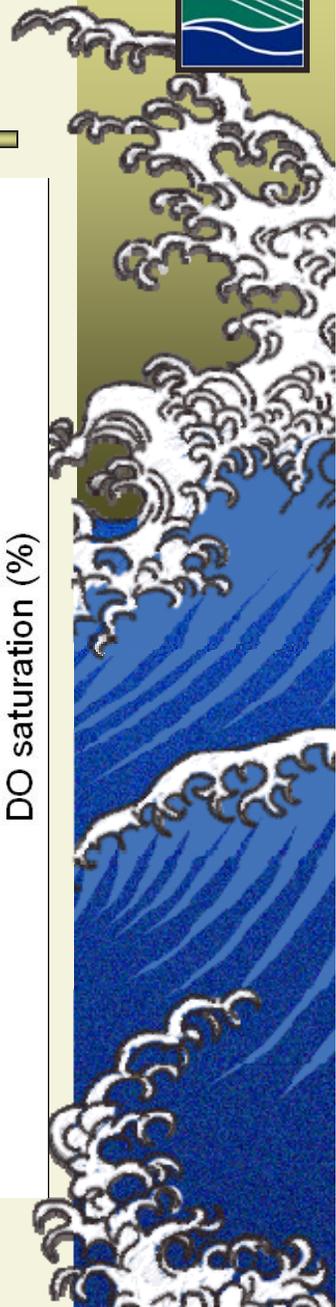
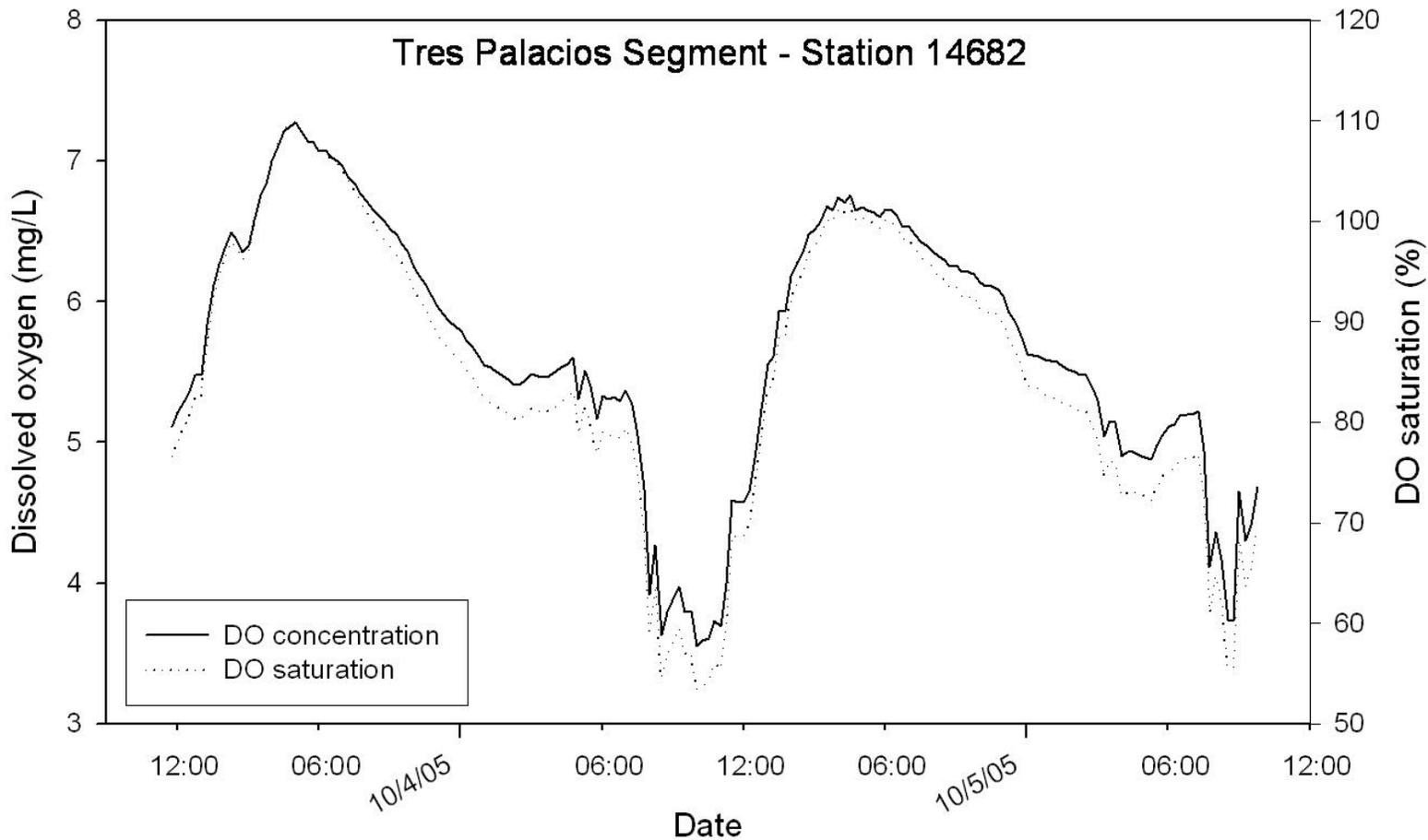


Aquatic Life Use and 24-Hour Dissolved Oxygen Criteria



| Aquatic Life Use | Average Criteria | Minimum Criteria |
|---------------------------|-------------------------|-------------------------|
| Exceptional | 5 | 4 |
| High | 4 | 3 |
| Intermediate | 3 | 2 |
| Limited | 3 | - |
| No Significant Use | 2 | - |

24-Hour Dissolved Oxygen Measurements





Questions?

Next Steps?

- ▶ Recommended for removal from 2006 303(d) List
 - ▶ Carancahua Bay (2456)
 - ▶ Matagorda Bay (2451)
 - ▶ Tres Palacios Bay (2452)

For Dissolved Oxygen and pH Only!

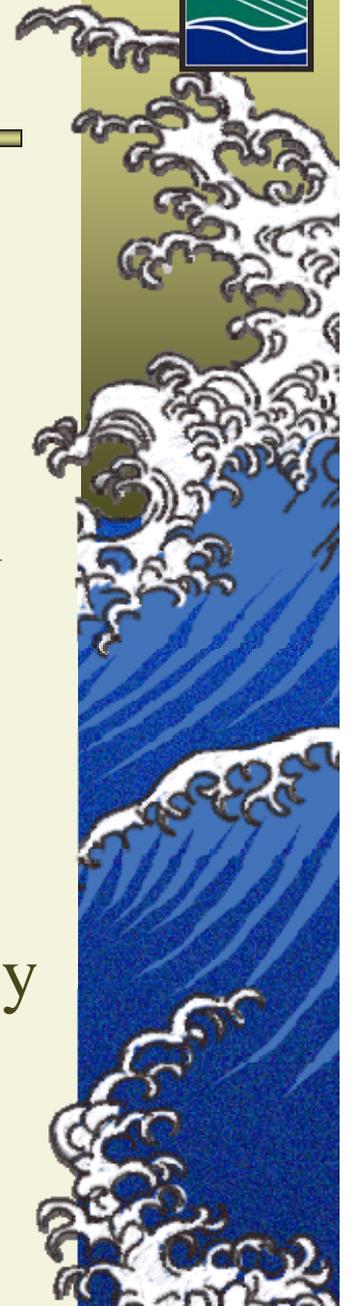
Bacteria impairments were not addressed by this project



Tres Palacios Bay (2452)

2006 305(b) Assessment

- ▶ Palacios Harbor will be assessed as an “Off-channel Segment” and the designated use will change from “exceptional” to “high” aquatic life use.
- ▶ Stations 18867, 13382 will be excluded from the assessment of Tres Palacios Bay since they are not representative of bay conditions



Texas Commission on Environmental Quality



Total Maximum Daily Load Program

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