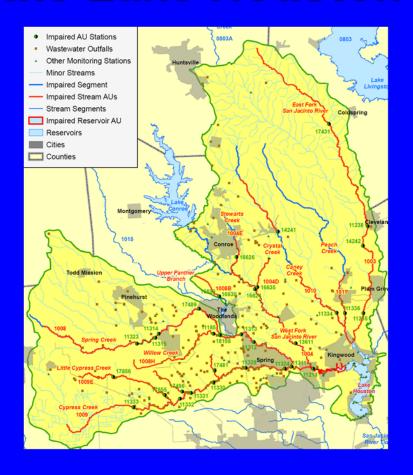


## Total Maximum Daily Load Bacteria in the Lake Houston Watershed



Texas Commission on Environmental Quality
Casey Johnson, Kerry Niemann, & Ron Stein
- Project Managers



# The TMDL and Implementation PLAN

- The Clean Water Act requires that a Total Maximum Daily Load be established for pollutants for "impaired" water bodies
- Based on the Total Maximum Daily Load, an Implementation Plan must be developed to reduce the pollutants.
- The goal is to meet the Water Quality Standards



#### **TMDL Process Milestones**

1st Milestone – Process and important terms to be discussed in this presentation.

Place Water Body on 303(d) List

2<sup>nd</sup> Milestone – Determine limits to pollutant loads

TMDL Document

3<sup>rd</sup> Milestone – Develop plan to improve water quality

Implementation
Plan
Document

Final Goal – Meet Water Quality Standards



#### TMDL PROCESS

- 1. Prepare TMDL Report
- 2. TMDL Adoption TCEQ & EPA
- 3. Prepare Implementation Plan
- 4. IP Approval Only TCEQ



### TMDL REPORT

#### Primary element of TMDL LC = WLA + LA + MOS

LC = Load Capacity
WLA = Waste Load Allocation (Regulated)
LA = Load Allocation
MOS = Margin of Safety



#### TMDL Report

LC = Load Capacity

Amount of indicator bacteria a stream can receive and achieve the standard

Standard – designated use and associated criteria







#### TMDL Report

#### WLA = Waste Load Allocation

Sources regulated by permits (discharge, urban storm water, CAFO, etc.)

#### LA = Load Allocation

"Non-Point" Sources, background and non-regulated sources



#### TMDL Report

#### **MOS = Margin of Safety**

Factor to allow for uncertainty in allocations



#### TMDL REPORT

- Prepare TMDL Report
  - **Summarize Problem**
  - Summarize Project Findings
  - TMDL allocations
- Adopted by TCEQ
  Commissioners



#### IMPLEMENTATION PLAN

The Implementation Plan preparation begins as soon as possible

**Develop in consultation with:** 

- Stakeholders and all watershed representatives
- **TCEQ Sections**
- All State Agencies affected by TMDL
- All Federal Agencies affected by TMDL



### IMPLEMENTATION PLAN ELEMENTS

- **Activities**
- Schedule of Activities
- Monitoring Program
- Funding Sources
- Program Evaluation



### PROJECTED SCHEDULE

- **⑤ TCEQ TMDL Adoption − 2009**
- **Service Service 1 Service 2010 Service 2010**
- Implementation Approval 2009-2010



#### TMDL Revisions

If conditions change or new information is developed that change the premises of the TMDL, the TMDL can be revised or reissued to reflect the changes.



## Questions?



## Thank You

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