Total Maximum Daily Loads: Restoring Water Quality in Texas Surface Waters

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Section 303(d) of the Clean Water Act

- Identify water bodies that do not meet water quality standards, or are not expected to meet standards within two years (threatened)
- Establish priorities and schedules for developing total maximum daily loads (TMDLs)
- Develop TMDLs and Implementation Plans that identify activities responsible for reducing pollution loads

How Are Waters Assessed?

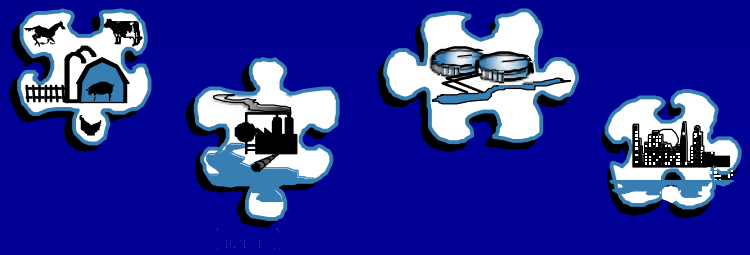
- Waters are assessed against uses defined in the *Texas Surface Water Quality Standards*, 30 TAC 307
- Numeric and narrative criteria are evaluated
- Four general categories of use are defined:
  - Aquatic life use
  - Contact recreation
  - Public Water Supply
  - Fish Consumption/Oyster Waters

How Are Results Reported?

- Results of the assessment are reported in the *Water Quality Inventory and 303(d) List*
- The report includes:
  - Assessment of surface waters to determine if they meet standards [CWA §305(b) report]
  - Identification of those waters that do not meet standards [CWA §303(d) List]
  - Schedule for implementing TMDLs and other management measures

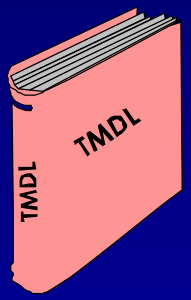
What Is a TMDL?

- A total maximum daily load (TMDL) is a scientific model that:
  - determines the maximum amount (or load) of a particular pollutant that a water body can receive and attain and maintain its standards
  - allocates this allowable load to point and non-point sources of pollution in the watershed



A TMDL Is Also A. . .

- **Technical term:** the amount of pollution a water body can receive and still meet standards for its use (a load allocation).
- **Technical document:** submitted to EPA for approval. Includes identification of pollutant, sources, and allocation of load to point and nonpoint sources

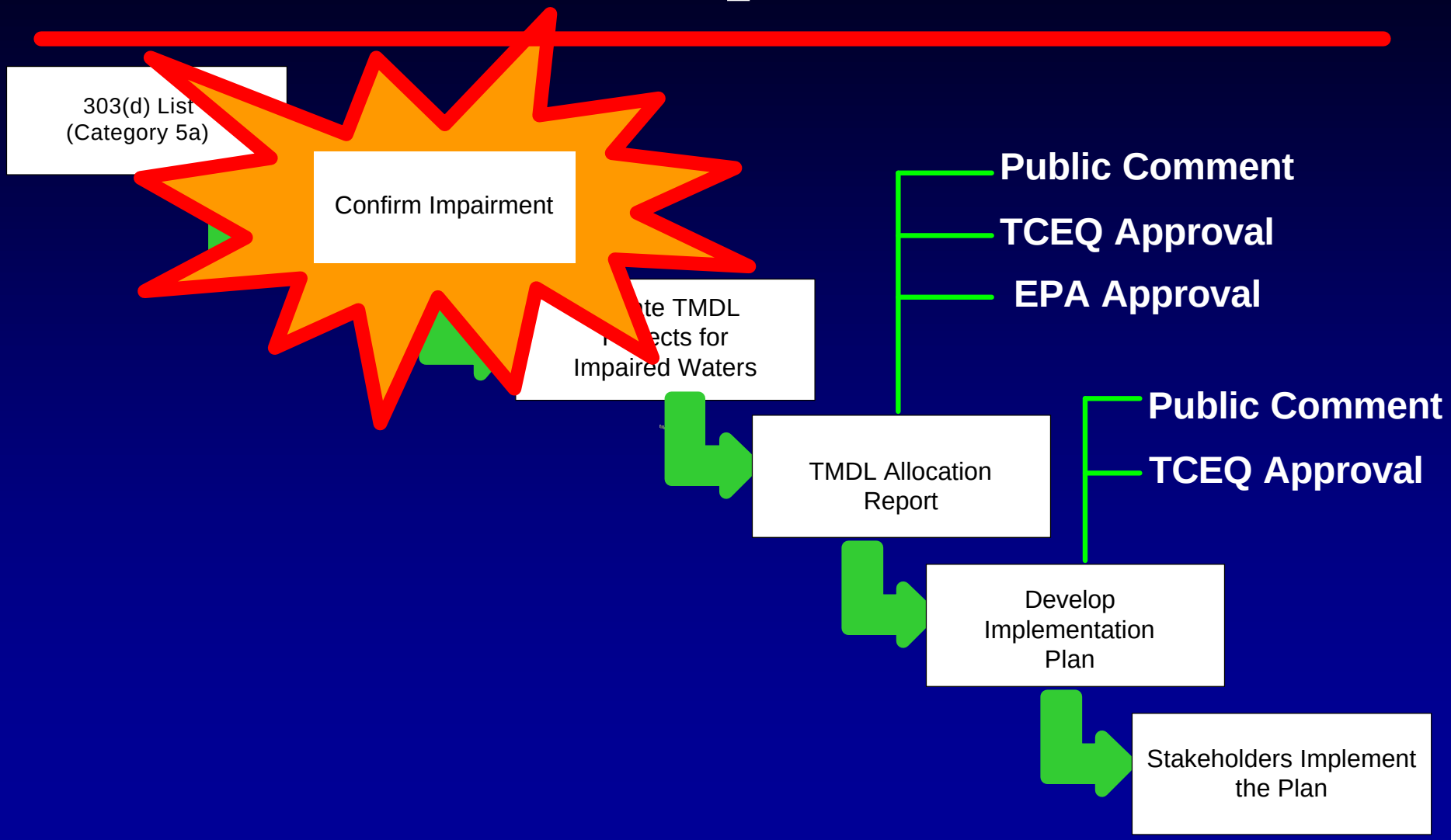


- **Process:** for restoring water quality

Why Do TMDLs?

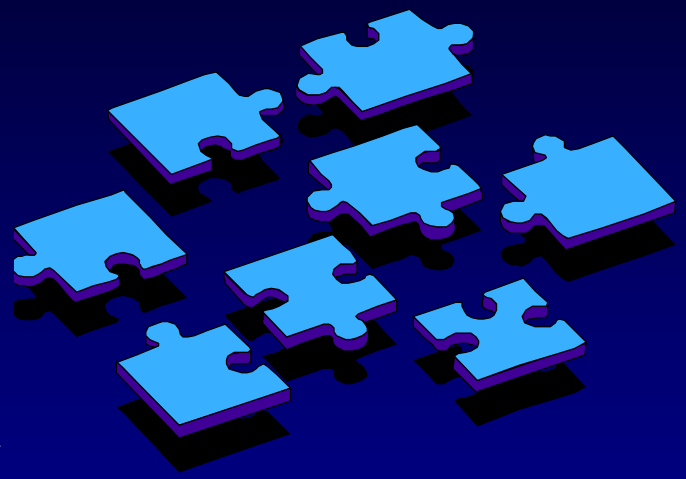
- Restore water quality in rivers, lakes, and bays affected by pollutants
- An effective tool for determining sources and necessary actions
- Required under Section 303(d) of the federal Clean Water Act (CWA) for some water bodies that do not meet water quality standards

TMDL Development Process



Main Elements of a TMDL

- Problem Definition
  - Impairment Confirmation
- Endpoint Identification
- Source Analysis
- Linkage Between Sources and Receiving Waters
- Margin of Safety
- Pollutant Load Allocation



Main Elements of an Implementation Plan

- A description of management measures and actions
- A schedule for implementing activities

- A follow-up monitoring plan to determine the success of management measures
- Reasonable assurance for implementation of voluntary non-point sources
- Identification of measurable outcomes to determine success

www.tnrcc.state.tx.us/water/quality/tmdl/

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