Potential Revisions to Water Quality Standards for Elm and Sandies Creeks

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Federal Clean Water Act

The Objective of the Act:

To restore and maintain the chemical, physical and biological integrity of the Nation's waters

Federal Clean Water Act

Interim Goal of the Act:

Water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water – where attainable

Commonly called the "fishable/swimmable" goal

Federal Clean Water Act

Water Quality Standards

A water quality standard is defined as the designated beneficial uses of a water segment and the water quality criteria necessary to protect those uses

Uses include water supplies, propagation of fish and wildlife, recreation, agricultural uses, industrial uses, and navigation

EPA Regulations

Existing Use

Those uses actually attained in the water body on or after November 28, 1975, whether or not they are currently being attained

Existing use, if known, should be the designated use – if not known, a presumption can be made for the designated use (e.g., aquatic life use based on water body type)

Uses for Elm and Sandies Creeks

- general criteria: aesthetics, toxics, nutrients, etc.
- presumed high aquatic life use based on flow status of the two creeks
- contact recreation

Aquatic Life Use Subcategories
Dissolved Oxygen (DO)
Considered to meet goal of Act by EPA

- Exceptional

DO criterion - 6.0 mg/L (FW) & 5.0 mg/L (SW)

- High

DO criterion - 5.0 mg/L (FW) & 4.0 mg/L (SW)

Aquatic Life Use Subcategories

Considered to **not** meet goal of Act by EPA

- Intermediate

DO criterion - 4.0 mg/L (FW) & 3.0 mg/L (SW)

- Limited

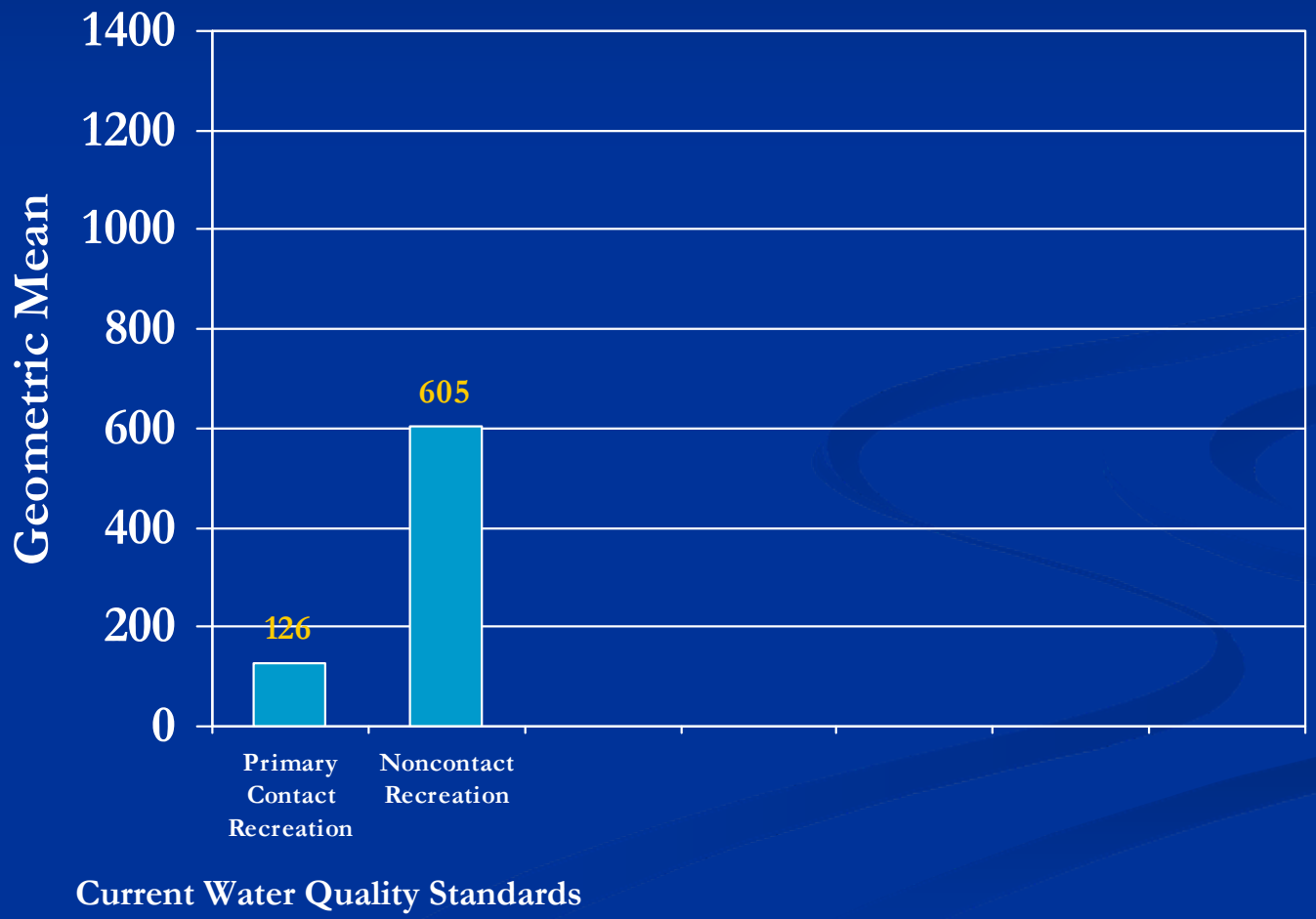
DO criterion - 3.0 mg/L (FW) & N/A (SW)

Recreational Criteria Bacteria

- proposed recreational use re-categorization based on water body type, would not require additional justification

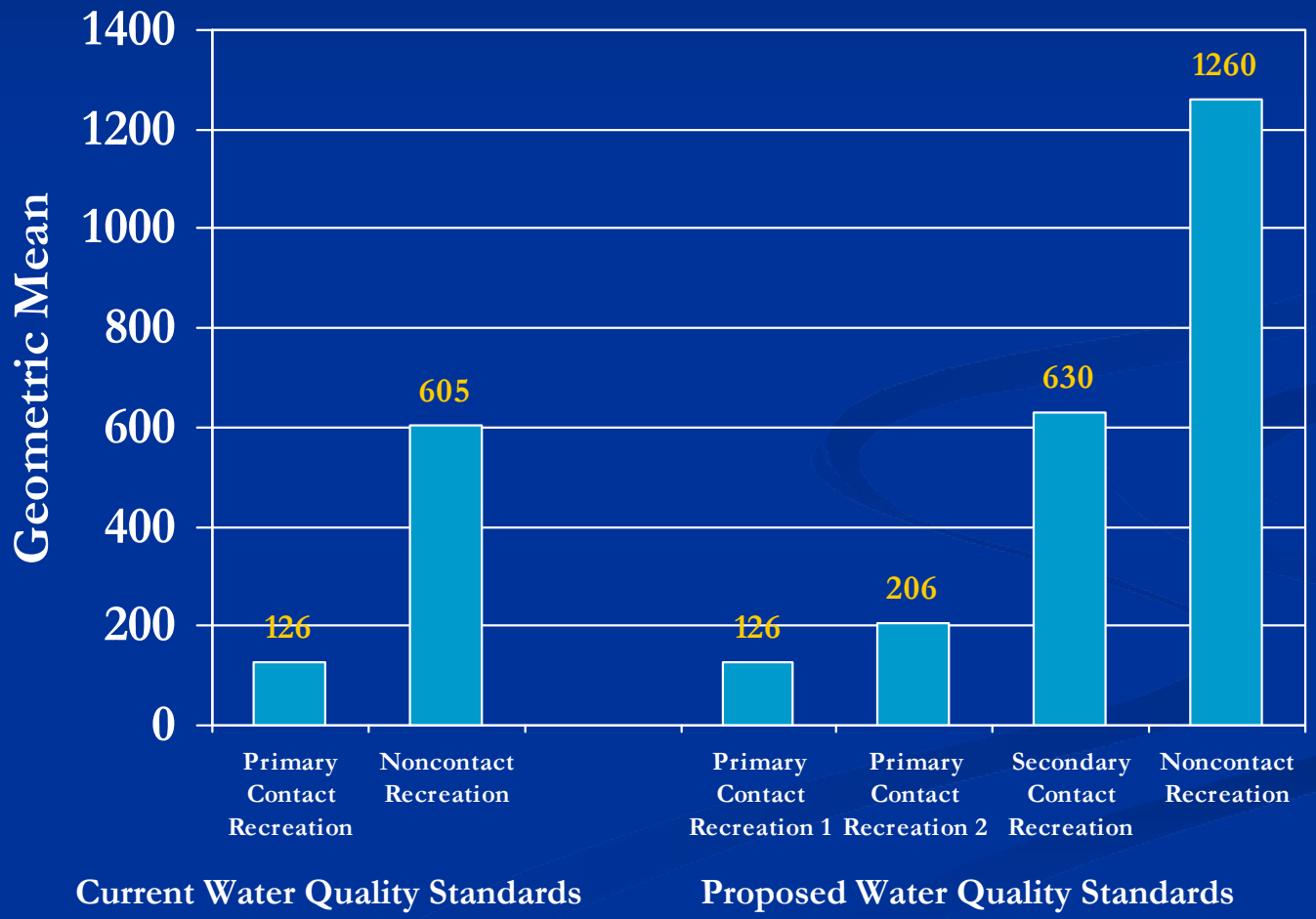
- potential effects on bacteria listings

Recreational Criteria Bacteria



Current Water Quality Standards

Recreational Criteria Bacteria



EPA Regulations

Use Attainability Analysis (UAA)

An existing use can not be removed, but a designated use that has not been attained may be removed or modified

A UAA is a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological and economic factors

Elm and Sandies Creeks UAA

- existing physical, chemical, and biological data being evaluated
- ensure that any instances of lower aquatic life uses or dissolved oxygen levels are not caused by controllable pollutants
- preliminary indications that dissolved oxygen criteria may need to be lowered from those corresponding to the appropriate aquatic life use

UAA

Potential reasons for lowering a use (or associated criteria):

- Naturally-occurring substances
- Natural low flow conditions or water levels
- Human-caused conditions that cannot be remedied

Potential reasons for lowering a use (cont.):

- Hydrologic modifications (dams, intakes, etc.)
- Physical conditions of the water body
- Tighter controls would result in substantial economic and social impact

Water Quality Standards: Revision Process

- TCEQ currently in revision process
- Submit UAA to EPA for technical review
- If EPA states that UAA is "approvable", include use change in water quality standards revision
- The water quality standards undergo public review and hearing
- The TCEQ adopts the water quality standards
- The water quality standards must be approved by EPA