



Implementation Procedures (IPs)

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Standards Implementation Team

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A background image of a stream flowing through a dense forest. The water is clear and reflects the surrounding greenery. The trees are tall and thin, with many branches visible. The overall scene is peaceful and natural.

Functions of the Standards Implementation Team

- Review TPDES Applications
- Implementation Procedures for the Texas Surface Water Quality Standards (RG-194)
- Receiving Water Assessments
- 401 Water Quality Certification and Mitigation Banks
- Team Members: John, Lili, Peter, Brad, Jeff, Jenna, Sarah, Mike P and Tonja.
- Team Leader: Gregg Easley

Technical Review Process

Applications Team



****Standards Reviewer****



Critical Conditions Review



Dissolved Oxygen Modeler



****Biomonitoring Review****



Permit Writer

TPDES Standards Review

- **Assess receiving water flow status**
- **Assign aquatic life uses and associated criteria**
- **Perform nutrient and TDS screening**
- **Antidegradation reviews**
- **Endangered Species review**



What are “Implementation Procedures (IPs)”

- A guidance document that explains how TCEQ applies the Water Quality Standards rule to the wastewater permits
- Example: The Standards assign a 5.0mg/L DO criterion to the Colorado River
- The IPs establish DO modeling methods to ensure the limits in a wastewater permit will maintain a 5.0 mg/L DO criterion

What's New with the IPs

- **Triennial review process**
- **EPA approved the 2010 IPs on July 12, 2013**
- **Find out the latest and greatest at our Water Quality Advisory Work Group Meetings**



EPA Objections:



- **De-chlorination**
- **Variances**
- **Whole Effluent Toxicity**
- **Approximately half of the proposed nutrient criteria for lakes**



De-chlorination

IP proposes de-chlorination requirements for new and expanding domestic discharges with design flows between 0.5 and 1.0 MGD

Biomonitoring Review

- Nicknamed “WET” Whole Effluent Toxicity
- Exposure of an invertebrate and vertebrate species to predict impacts to aquatic life (lethal and sublethal)
- Uses the most recent 5 years of testing, determines reasonable potential
- Formulates language, and “Toxicity limits”



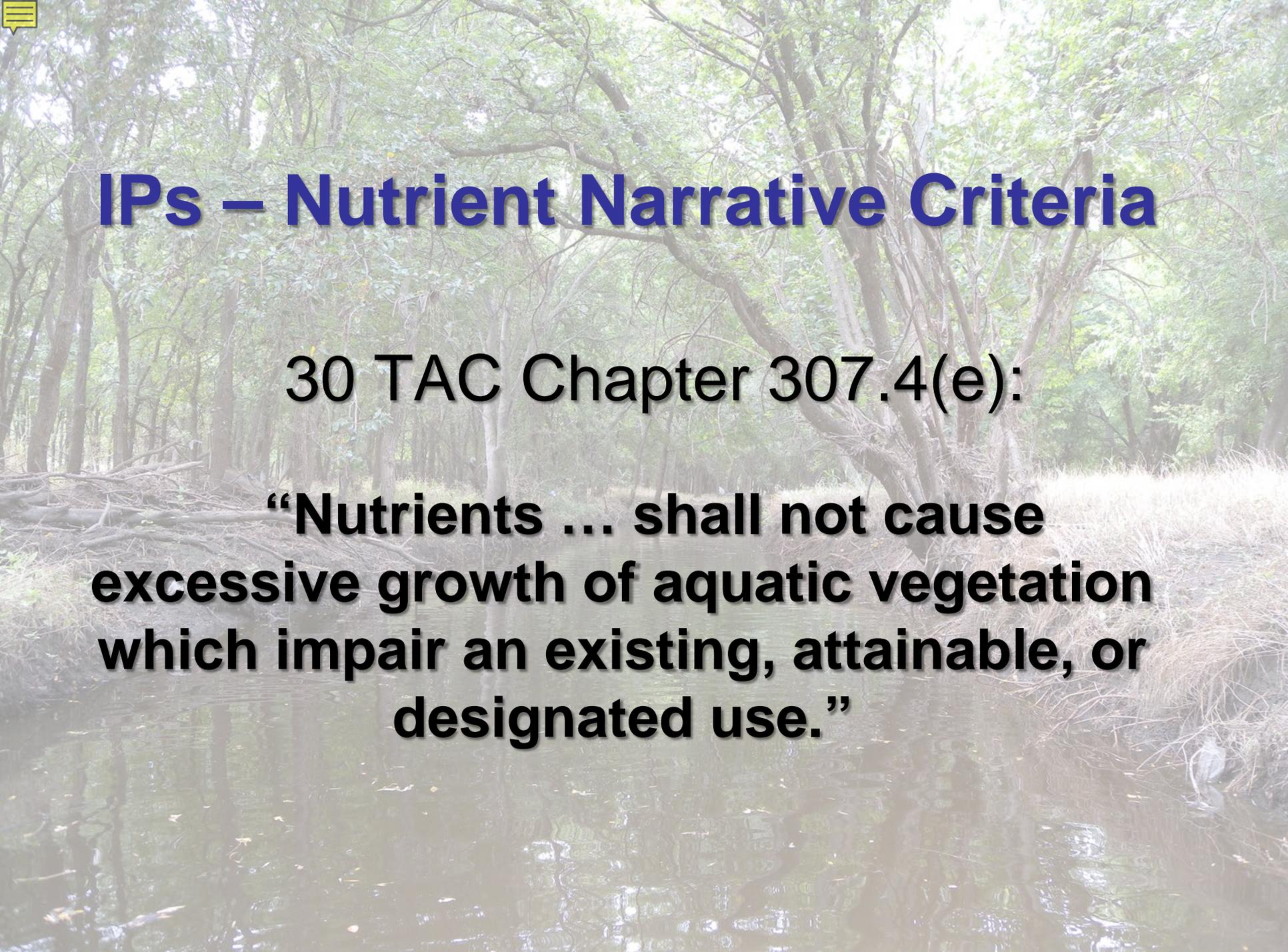


**2010 IPs – Additional
Revisions**

**Minimum Analytical Levels
(MALs) date of compliance
July 14, 2014**

Why Control Nutrients?

- ▶ Phytoplankton algae in open water
- ▶ Attached algae; floating algae
- ▶ Rooted vegetation
- ▶ Aesthetic effects on recreation
- ▶ Water supplies: THM, taste & odor
- ▶ Aquatic-life: fisheries $\uparrow\downarrow$ habitat $\uparrow\downarrow$
D.O. at night \downarrow diversity \downarrow



IPs – Nutrient Narrative Criteria

30 TAC Chapter 307.4(e):

“Nutrients ... shall not cause excessive growth of aquatic vegetation which impair an existing, attainable, or designated use.”

Nutrients – Typical TP Limits

Permitted Flow (MGD)

TP Limit (mg/L)

< 0.5

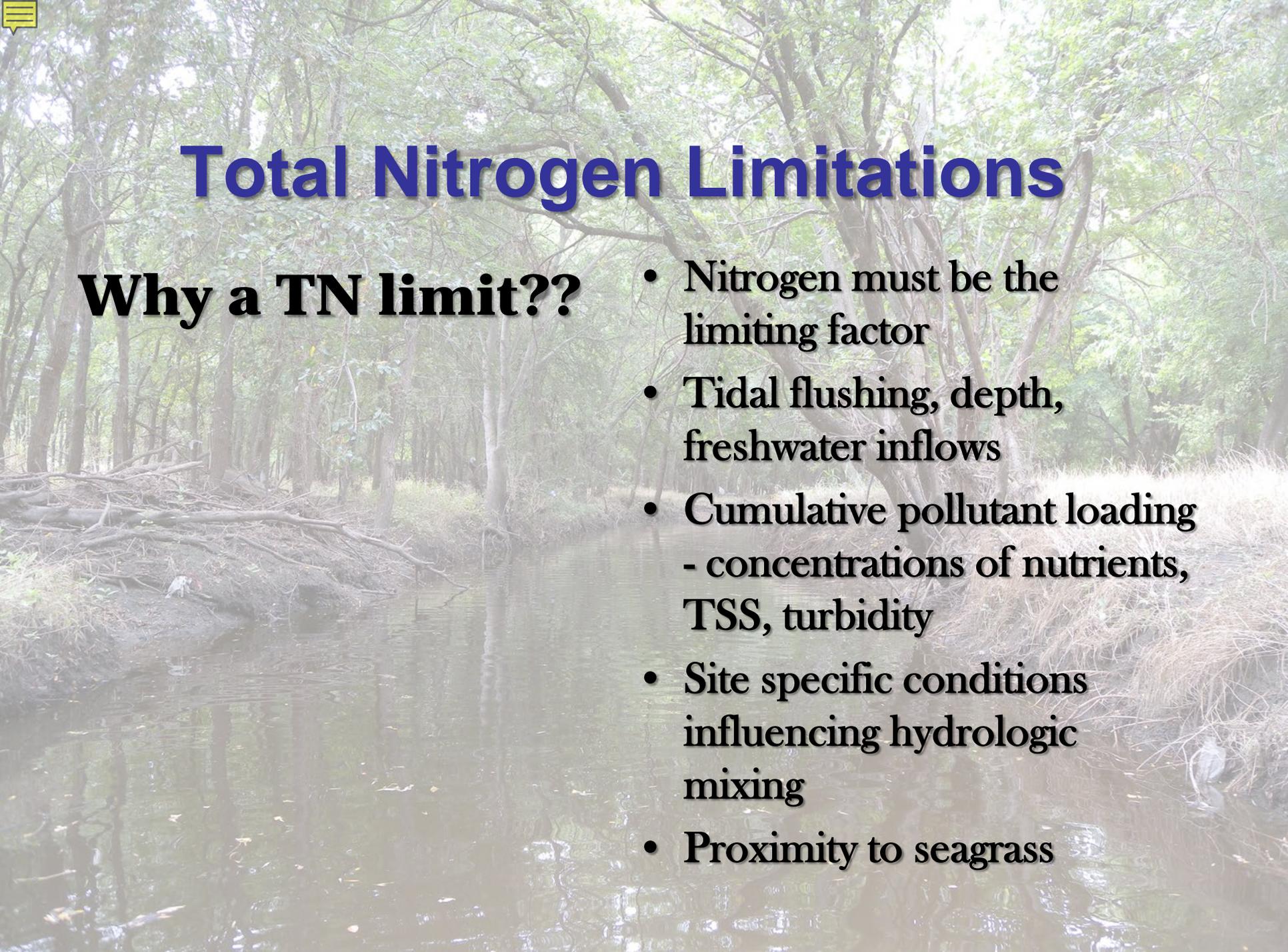
1.0

0.5 – 3.0

1.0 – 0.5

> 3.0

0.5



Total Nitrogen Limitations

Why a TN limit??

- Nitrogen must be the limiting factor
- Tidal flushing, depth, freshwater inflows
- Cumulative pollutant loading
- concentrations of nutrients, TSS, turbidity
- Site specific conditions influencing hydrologic mixing
- Proximity to seagrass

Reservoir Criteria

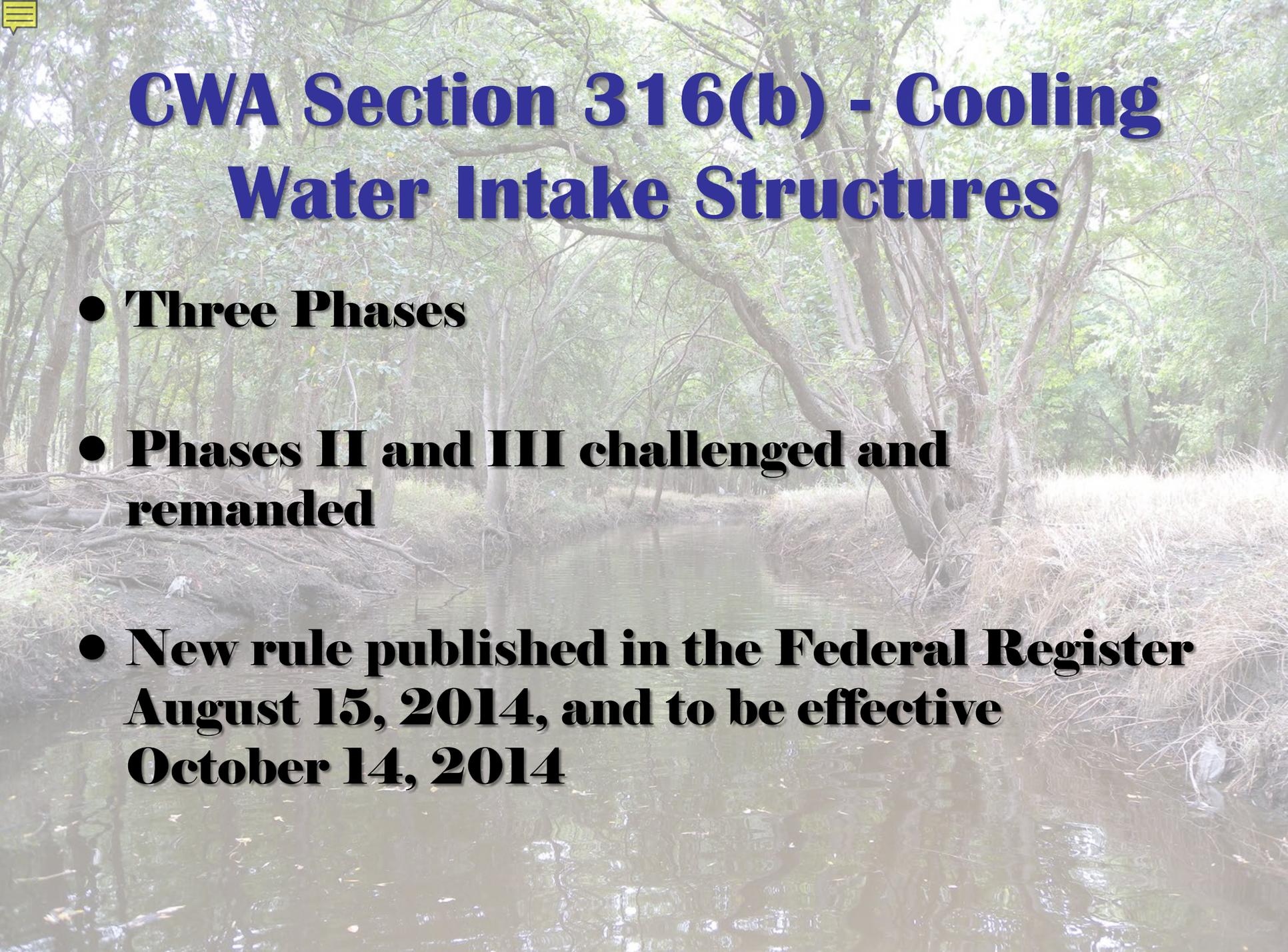
- **Criteria was proposed for 75 reservoirs**
- **EPA approved about half of the criteria proposed**
- **How does that affect me??**



Challenges Ahead



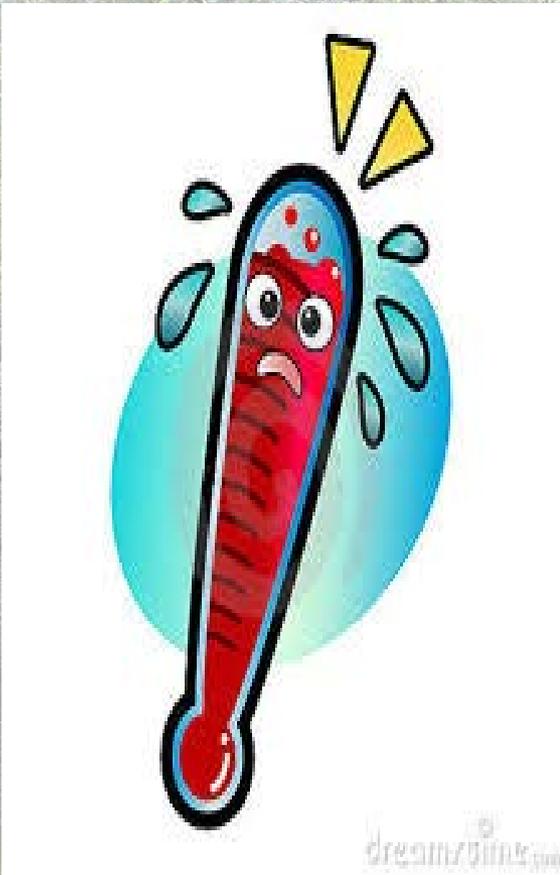
- ✓ **316(b)**
- ✓ **Temperature**
- ✓ **pH Objections**
- ✓ **IP revisions**



CWA Section 316(b) - Cooling Water Intake Structures

- **Three Phases**
- **Phases II and III challenged and remanded**
- **New rule published in the Federal Register August 15, 2014, and to be effective October 14, 2014**

Temperature



- ❖ **Potential Effects**
- ❖ **Segment Criteria**
- ❖ **EPA Objections**
- ❖ **TCEQ Resolution**

Temperature Path Forward



➤ Stakeholder Meeting – August 20th

➤ IP Webpage

https://www.tceq.texas.gov/waterquality/standards/WQ_stds

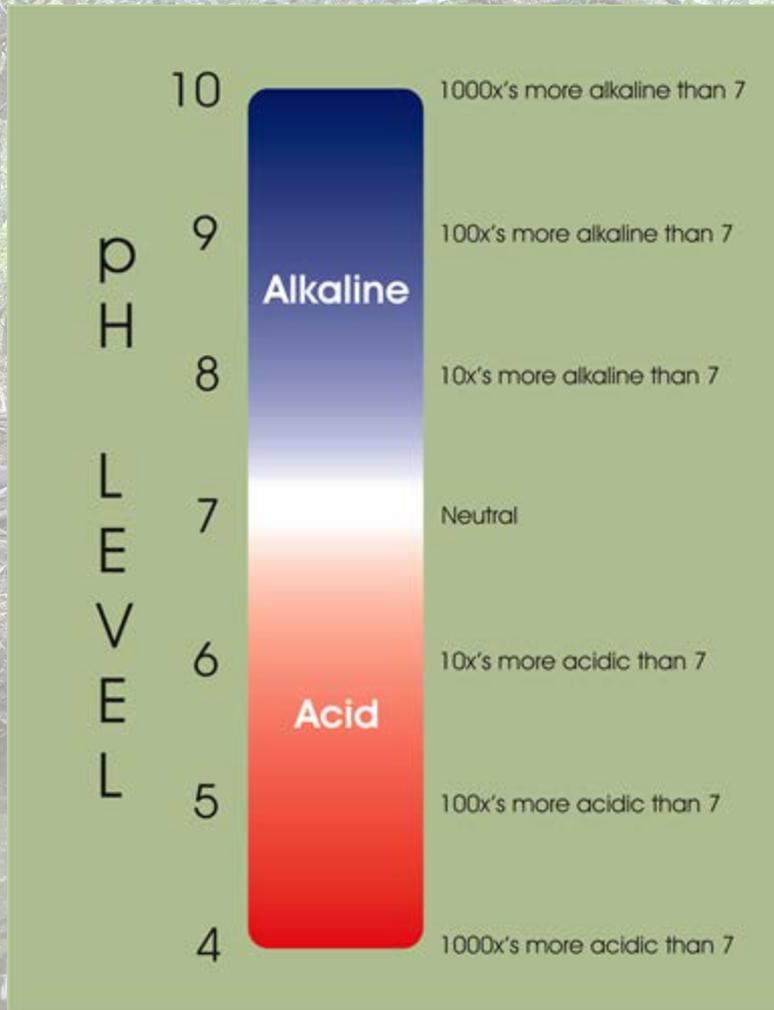
➤ Why is March 2015 important??

➤ November 2016 – Finalize Draft

October 2017 – Incorporate procedures into the IPs

➤ Next Stakeholder Meeting early ~ December 2014

pH Objections



- **Segment criteria is 6.5-9.0su**
- **EPA objections**
- **pH Scening conducted if:**
 - **Specific criteria is met**
 - **If the applicant declines to accept the assigned segment criteria**



CHANGE

IT'S A SHORT TRIP FROM RIDING THE WAVES OF CHANGE TO
BEING TORN APART BY THE JAWS OF DEFEAT.



Any Questions???