

# Louisiana's 2018 Water Quality Integrated Report

(305(b) Report and 303(d) List)

August 13, 2020

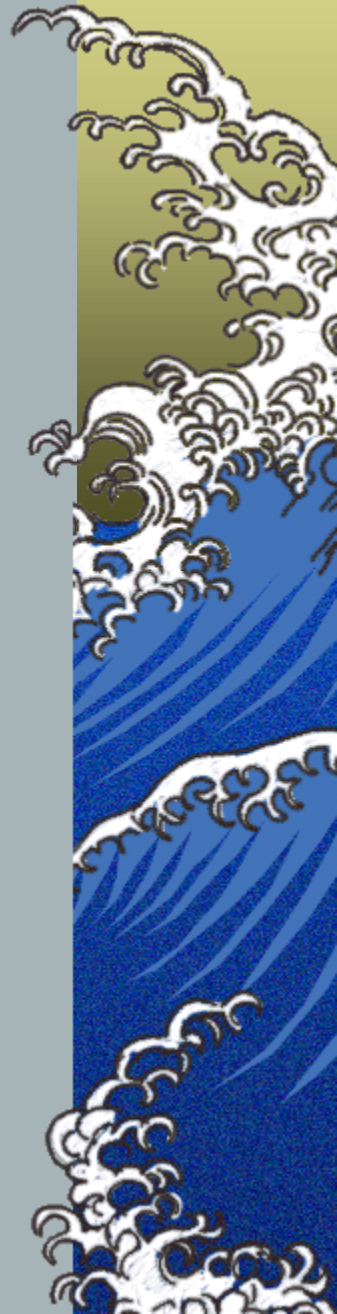
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# What to Expect

- ▶ Where did the Integrated Report (305(b) and 303(d)) originate, and why should you care?
- ▶ How are Integrated Report assessments connected to water quality permitting and nonpoint source actions?
- ▶ Where to locate the latest Integrated Report?

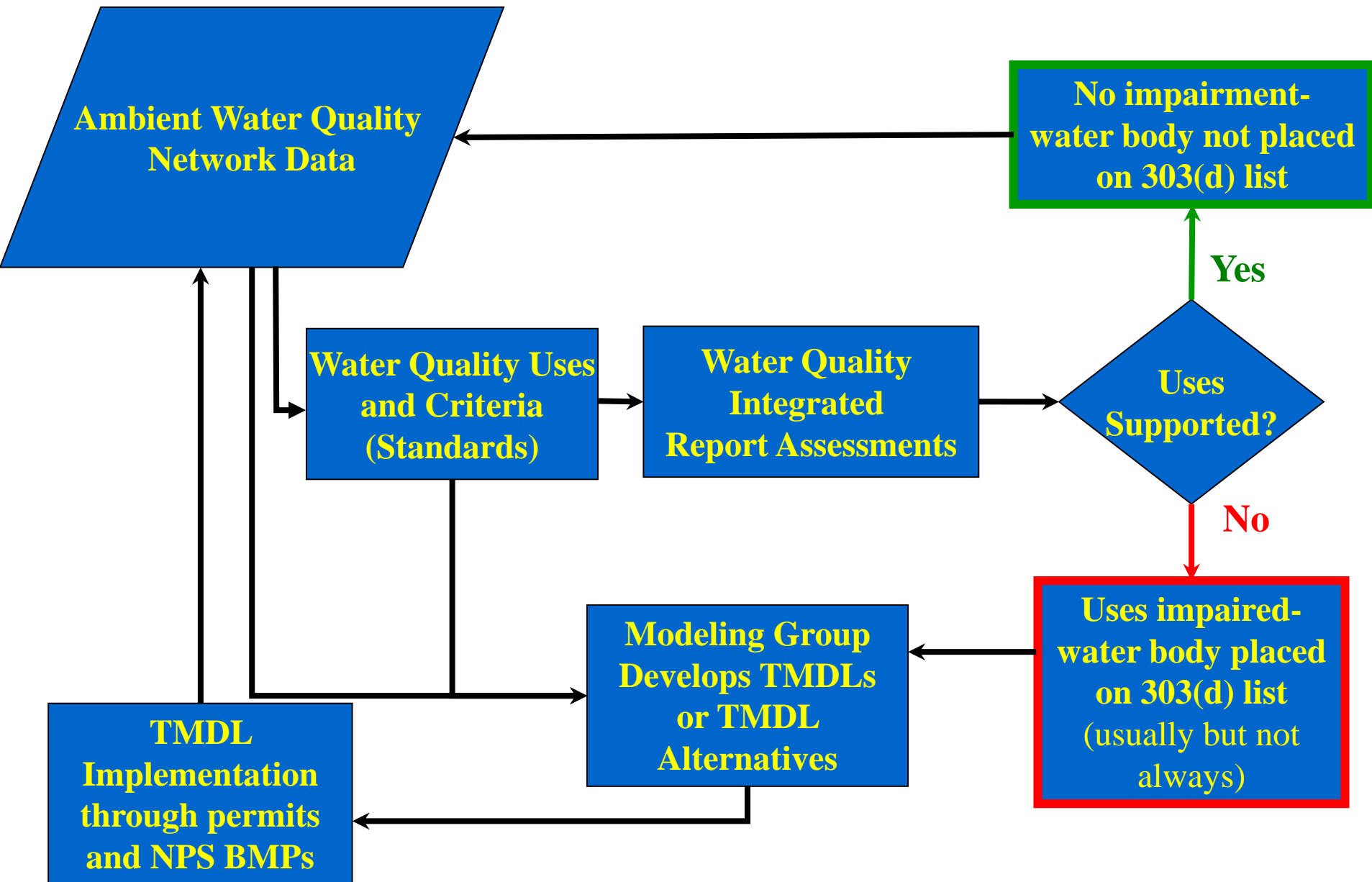


# Origins of the Integrated Report: Combined 305(b) Report and 303(d) List

- ▶ The 305(b) report and 303(d) list are requirements of the Federal Clean Water Act
- ▶ As requirements of the Clean Water Act, they are closely tied to Federal funding provided through EPA
- ▶ If Louisiana does not produce the 303(d) list, EPA will “disapprove” lack of action by state and produce the list

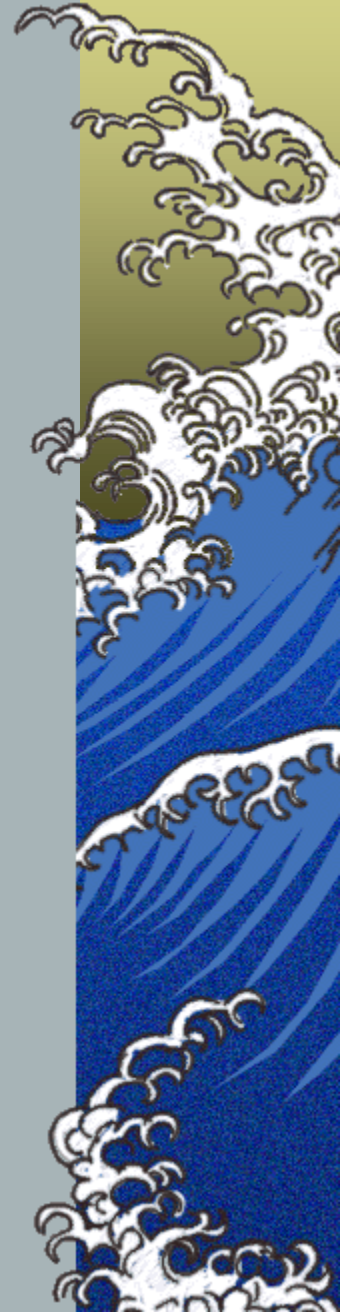


# Water Quality...The Big Picture



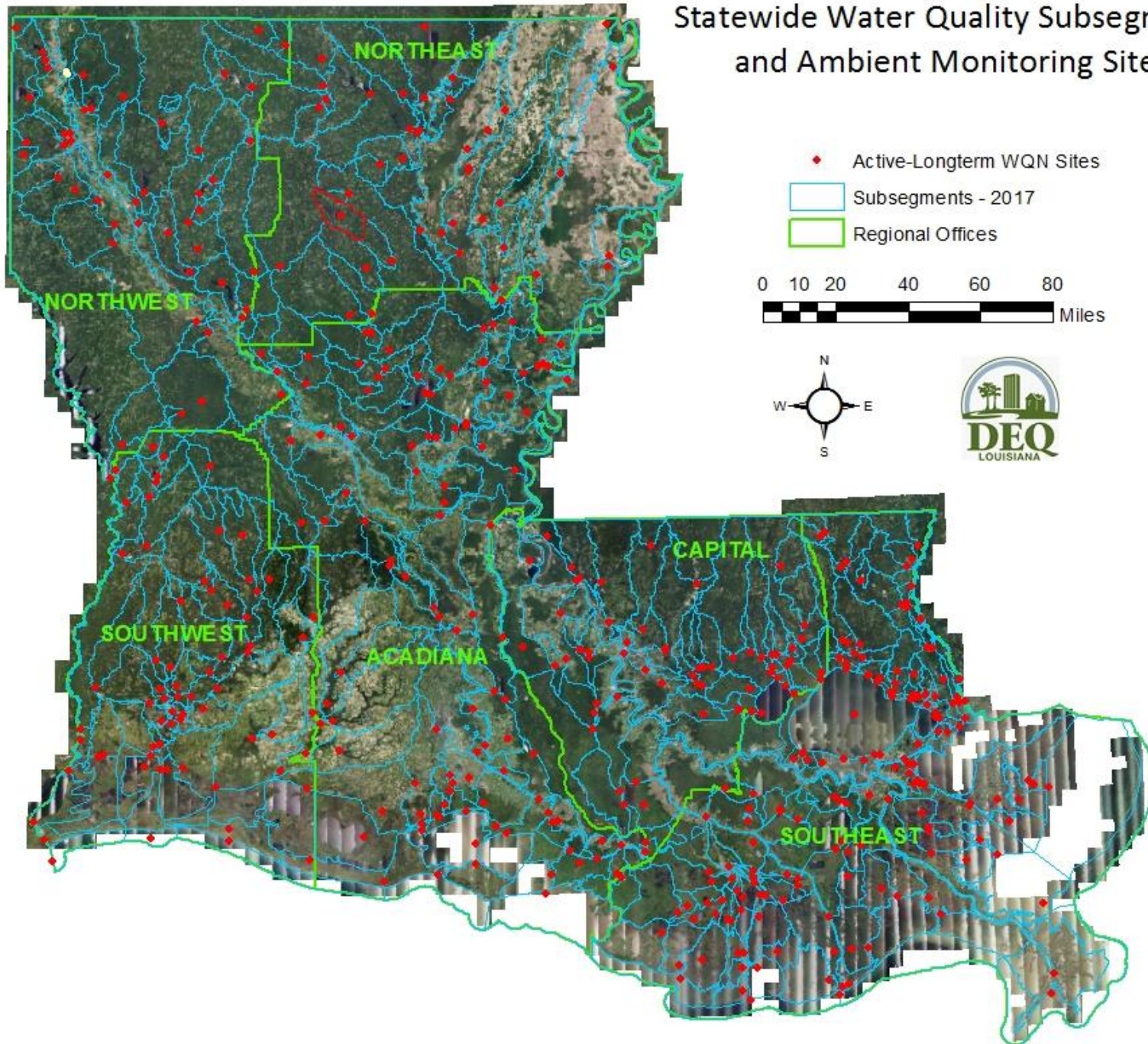
# Water Quality Monitoring

- Nearly all 499 water body subsegments in Louisiana have monitoring sites
- 22 sites are monitored every year
- The remaining sites are monitored every four years
- A core set of parameters are used to determine support of designated uses.



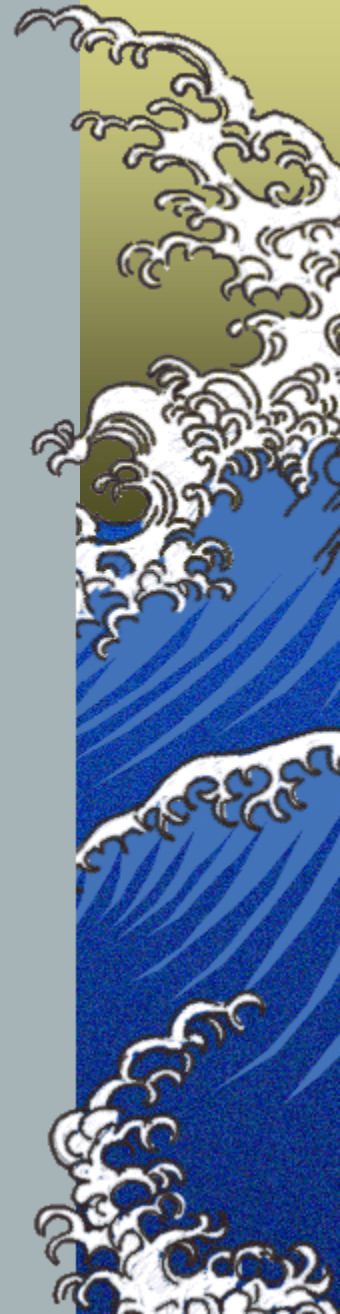


# Statewide Water Quality Subsegments and Ambient Monitoring Sites



# Water Quality Monitoring - Core Parameters

Designated Use	Core Assessment Parameters
Fish and Wildlife Propagation	Dissolved oxygen, temperature, pH, minerals, turbidity, toxic substances
Oyster Propagation	Fecal coliform
Primary Contact Recreation	Fecal coliform, enterococci, toxic substances, temperature
Secondary Contract Rec.	Fecal coliform, toxic substances
Drinking Water Supply	Fecal coliform, toxic substances, color
Outstanding Natural Resource	Turbidity



# Production of Louisiana's Integrated Report (overview)

- ▶ Receive guidance document from EPA
- ▶ Begins in approximately September of odd numbered years
- ▶ Analyze ambient water quality data in approximately November using SAS
- ▶ Report is due April 1 of even numbered years





# Assessment Methods

- ▶ Analysis generally based on percentage of samples meeting criteria (10% or 30% depending on parameter)
- ▶ Bacteria analysis based on specifics of criteria, generally 25% but other factors apply
- ▶ Metals and organic compounds: Allow no more than one criterion exceedance in three-year period



# Production of Louisiana's Integrated Report

- ▶ After water quality analysis is used to determine suspected causes of impairment (low DO, fecal coliform, etc.), regional field staff are asked to identify one or two most likely suspected sources of impairment
- ▶ Starting with the 2018 IR, assessment results are recorded in EPA's ATTAINS system (Assessment and Total Maximum Daily Load Tracking and Implementation System)



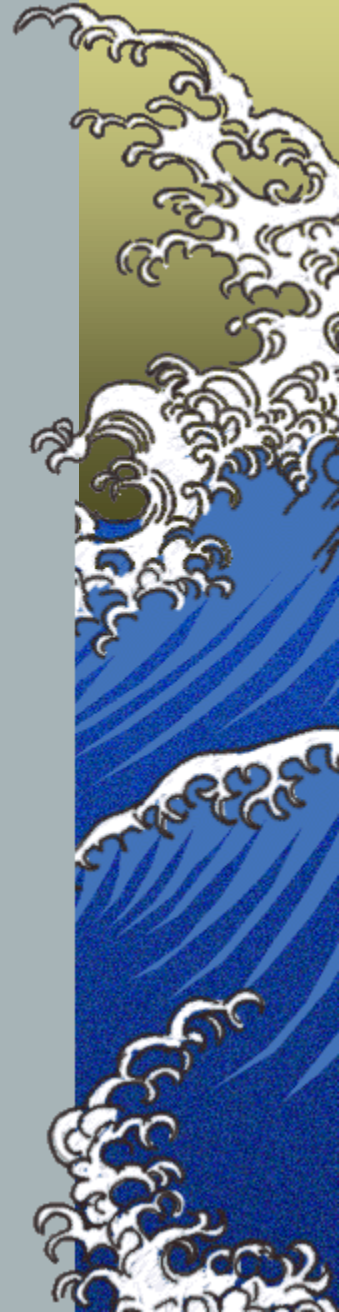
# Production of Louisiana's Integrated Report (continued)

- ▶ Required 305(b) and 303(d) text is developed
- ▶ ATTAINS information and text is developed into Louisiana's Integrated Report
- ▶ Public notice the assessment method and assessment results...respond to comments
- ▶ Transmitted to EPA for National Water Quality Reporting; due April 1 of even numbered years



# Integrated Report Categories

- ▶ Water body Impairment Combinations (WICs) are assigned one of several Integrated Report Categories (IRCs) to help determine priority for recovery efforts and track those efforts
- ▶ Categories are as follows:





# Integrated Report Categories

(Applies to specific suspected causes of impairment)

- ▶ **Category 1** – Not impaired, no causes of impairment (applies to full subsegment/all uses or former specific impairments moved to full support)
- ▶ **Category 2** – Insufficient data (applies to all uses on subsegment-no data)
- ▶ **Category 3** – Insufficient data (ambient data showed criteria failures for one or more parameters but uncertainty as to suitability of data and/or criterion for assessment)

(continued)



# Integrated Report Categories

(Applies to specific suspected causes of impairment)

- ▶ **Category 4a** – Impaired but TMDL completed
- ▶ **Category 4b** – Impaired but other actions to address the problem (remediation, task force,...)
- ▶ **Category 4c** – Impaired but not a pollutant (hydromodification)

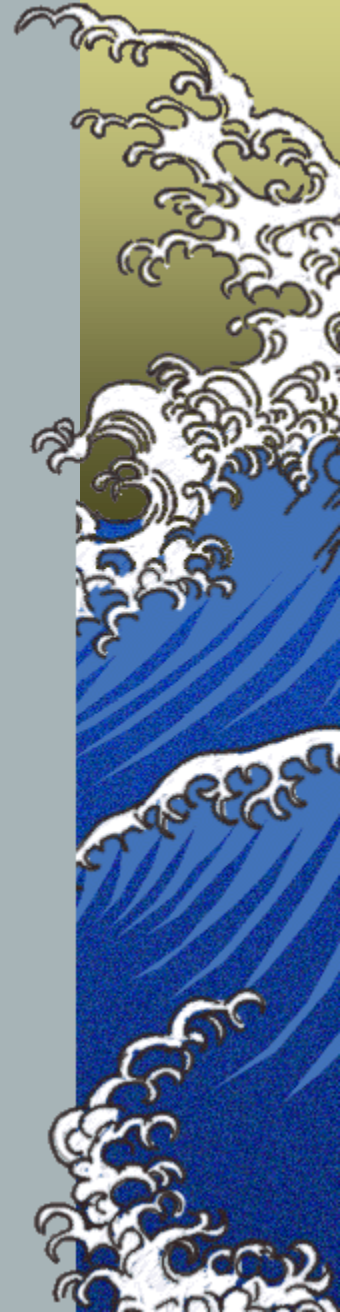
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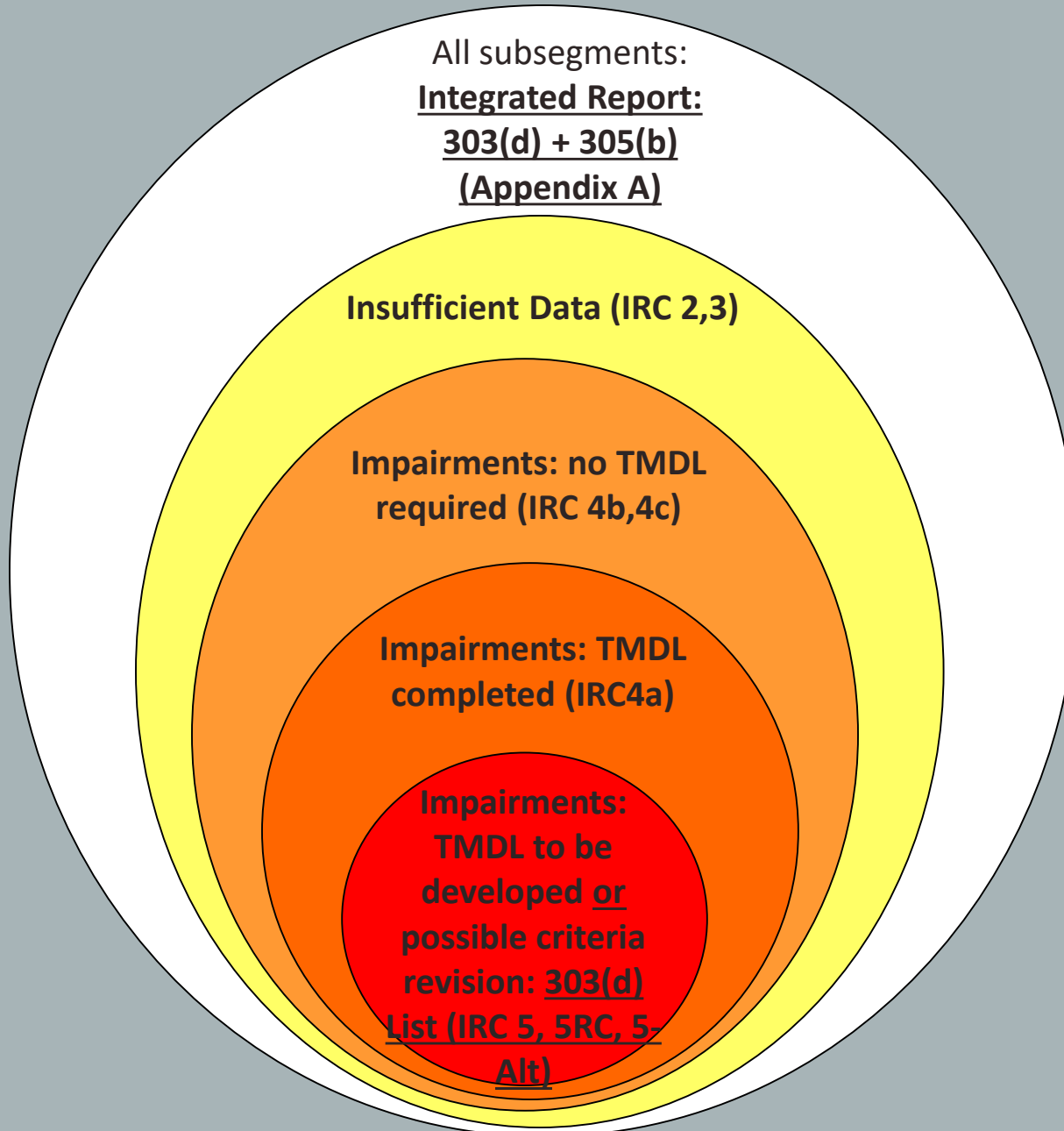
# Integrated Report Categories

(Applies to specific suspected causes of impairment)

- ▶ **Category 5** – Impaired and TMDL required: This is on the 303(d) List
- ▶ **Category 5RC** – Ambient data showed criterion failure but criterion may be inappropriate for water body. The need for revised criterion (RC) will be evaluated: This is on the 303(d) List but “Parked” pending criteria effort
- ▶ **Category 5-Alt** – Impaired but alternative strategies under LDEQ’s 303(d)/Vision process to ensure the water body will meet water quality standards in the future: This is on the 303(d) List but “Parked” pending alternatives effort



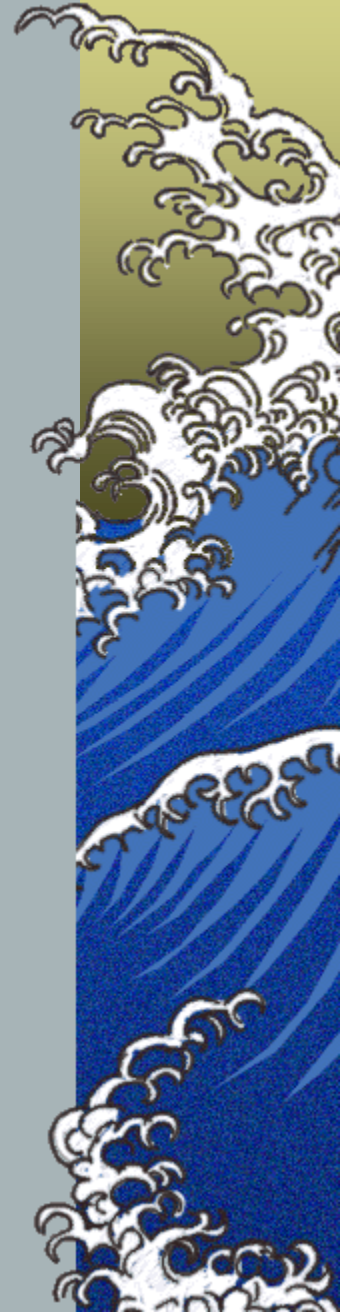
# Integrated Report Categories: Another View





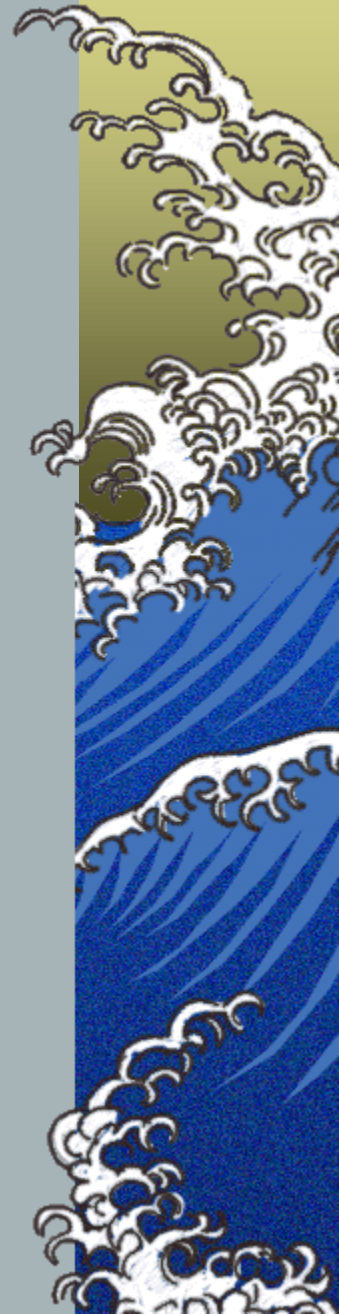
# Results of 2018 Integrated Report

- Report was fully approved by EPA on November 20, 2019
- Minimal changes were made to the report by LDEQ at the request of EPA prior to EPA's approval in November
- **1,677** separate assessments and suspected sources; fully supported, impaired, or insufficient data



# Results of 2018 Integrated Report

- Total number of regulatory subsegments – **499**
  - **534** when including non-regulatory subsegments, i.e., advisories
- Subsegments fully supporting all uses – **100 (20.0%)**
- Subsegments not supporting one or more uses – **376 (75.4%)**; many of these not supporting FWP
- Subsegments not supporting any uses – **12 (2.4%)**
- Subsegments with no data for assessments – **11 (2.2%)**



# Top Ten Suspected Causes of Impairment

(Count of affected subsegments)

- ▲ *Low dissolved oxygen* – 201
- ▲ *Fecal coliform* – 148
- ▲ *Mercury in fish tissue* – 113
- ▲ *Turbidity* – 94
- ▲ *Total Dissolved Solids* - 73
- ▲ *Non-native aquatic plants* – 44
- ▲ *Nitrate/nitrite* - 42
- ▲ *Total phosphorus* – 40
- ▲ *Sulfates* – 26
- ▲ *Chloride* - 21

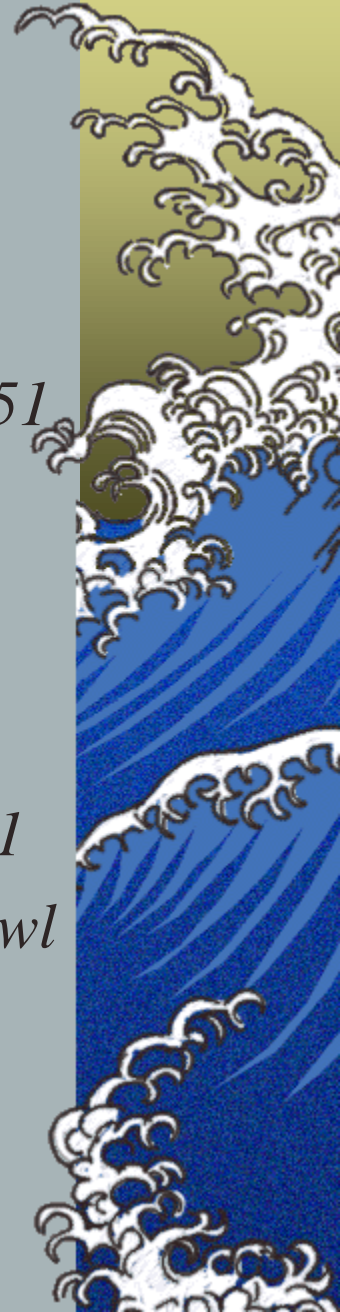
\* Next highest impairments are Enterococci and pH, Low with only 17 subsegments impaired.



# Top Ten Suspected Sources of Impairment

(Count of affected subsegments)

- ▶ *Natural sources* – 178
- ▶ *Source unknown* – 167
- ▶ *Atmospheric deposition* – 112
- ▶ *On-site treatment systems* – 93
- ▶ *Agriculture* – 79
- ▶ *Package plant/ permitted small sewage discharges* – 51
- ▶ *Introduction of non-native species* – 44
- ▶ *Sewage discharges from unsewered areas* – 38
- ▶ *Municipal point sources* - 31
- ▶ *Wildlife other than water fowl* – 23





# Where to find the 2018 Integrated Report and what it looks like.

<https://deq.louisiana.gov/page/water-quality-integrated-report-305b303d>



# What is the current status of the 2020 Integrated Report?

- ▶ 2018 IR is valid pending completion of the 2020 IR by LDEQ **and** approval by EPA
- ▶ As of August 13, 2020 the 2020 IR is under development. LDEQ is working with EPA Region 6 and EPA Headquarters to reach consensus before finalization
- ▶ Full text of the report is essentially ready; awaiting development of summary tables and figures, as well as EPA comments



For more information on Louisiana's  
Water Quality Integrated Report  
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