



THE WATER INSTITUTE
OF THE GULF

**LOUISIANA WATER RESOURCE
COMMISSION:
ASSESSMENT FOR SUSTAINABILITY AND
ENERGY MANAGEMENT**

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ABOUT THE WATER INSTITUTE

- ◆ The Water Institute of the Gulf is a **not-for-profit, independent research institute** dedicated to advancing the understanding of coastal, deltaic, river and water resource systems, both within the **Gulf Coast and around the world.**
- ◆ Our mission supports the **practical application** of innovative science and engineering, providing solutions that **benefit society.**



WATER IN LOUISIANA

- ◆ Louisiana is traditionally viewed as blessed with an abundance of water.
- ◆ Efforts have been made by several agencies in this state to properly manage Louisiana's groundwater and surface water resources.
- ◆ Particularly noteworthy are the efforts of the Water Resources Commission to be Louisiana's influential body in shaping the direction of water management policy going forward.
 - Additionally, these efforts are supported by multiple federal, state, and local agencies, and the NGOs and citizens engaged.



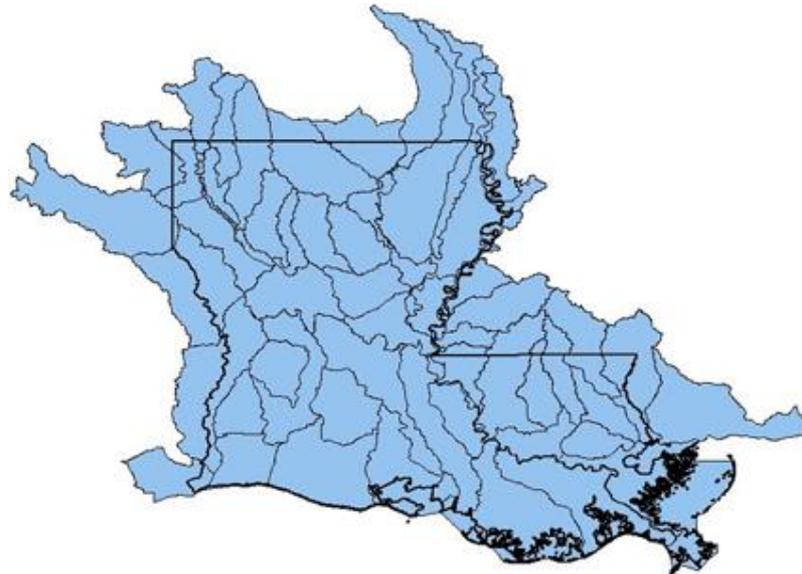
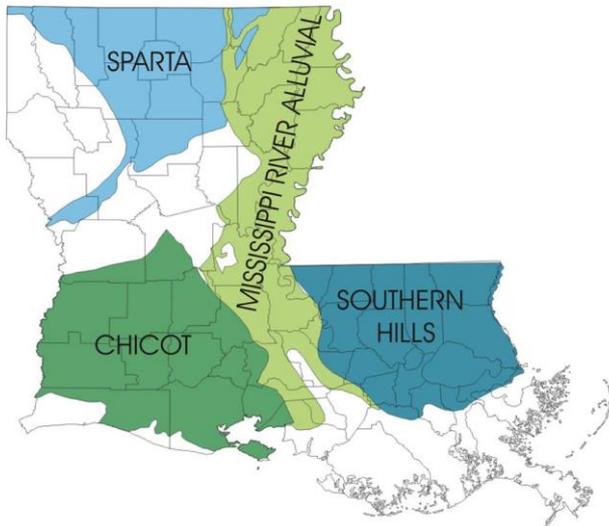
LOUISIANA IS MORE FORTUNATE THAN MANY STATES

- ◆ But that doesn't mean we are without concerns.
- ◆ For many states there is something fundamentally broken in their water systems---they have the serious check engine light on.
- ◆ In Louisiana, it is more a cautionary light, a check your water light!
- ◆ A warning that we need to take special care of our precious water resources.



WATER MANAGEMENT IN LOUISIANA

- ◆ Louisiana has made significant strides toward responsible management of its water resources.
 - Numerous previous studies, reports, and ongoing efforts.
- ◆ And it is moving toward even more comprehensive water management.
- ◆ In fact, Senate Resolution 171 has directed the Louisiana Law Institute to study divergence in surface and groundwater law, and make recommendations to Legislature on bringing these more closely together.



MANAGING WATER IS DIFFICULT

- ◆ Water is vital to all living things and most economic activity.
 - Thus the laws and policies governing water can have far-reaching effects.
- ◆ Water also has unique features that make it difficult to regulate.
 - Water is mobile, linked through the hydrologic cycle, and often not confined within a single geographic boundary or political jurisdiction.
 - Its supply can vary by year, season or location.
 - A source of water can have many users, often leading to bitter conflicts over uses.
 - Determining who owns water – or has the right to manage, divert, use or sell it – can become very contentious.
 - Attempts to regulate water can lead to claims of the “taking” of private property.



MANAGEMENT REQUIRES CERTAIN CRITICAL INFORMATION

- ◆ Water managers want to know how much water they have, how much they use, and how, when, and at what rate the water supplies are replenished.
- ◆ They want to know:
 - The amount of water that is there;
 - Where it is located;
 - What is its input, output and movement of through surface and groundwater;
 - How much is available for various uses (both natural and human);
 - What are the current and potential uses; and,
 - Most importantly, what is its future sustainability?
- ◆ This is called a Water Budget.



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A STEP TOWARD A WATER BUDGET FOCUSING ON PRIORITY AREAS AND ISSUES

◆ This project intends:

- To take the huge amount of data and information being generated and develop a Framework that makes it useful to decision makers
- Gauge the sustainability of water resources in light of present and projected uses
 - *Sustainability defined: A balance between use and supply that causes no further impairment to water resources, and maintains or improves the current health of these systems*
- Develop a system for analyzing and communicating these facts and figures to the public and key water managers around the state



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PROJECT METHODOLOGY

- ◆ **Activity 1.** Develop a Framework for appraising the health and sustainability of Louisiana's water resources.
- ◆ **Activity 2.** Review of Data Sources/Availability and select certain hydrologic units for detailed assessment.
- ◆ **Activity 3.** Conduct the appraisal of the hydrologic units selected through application of the Framework.
- ◆ **Activity 4.** Prepare a report that describes the Framework, its application to specific selected hydro units, and the resulting assessment of water resources sustainability.



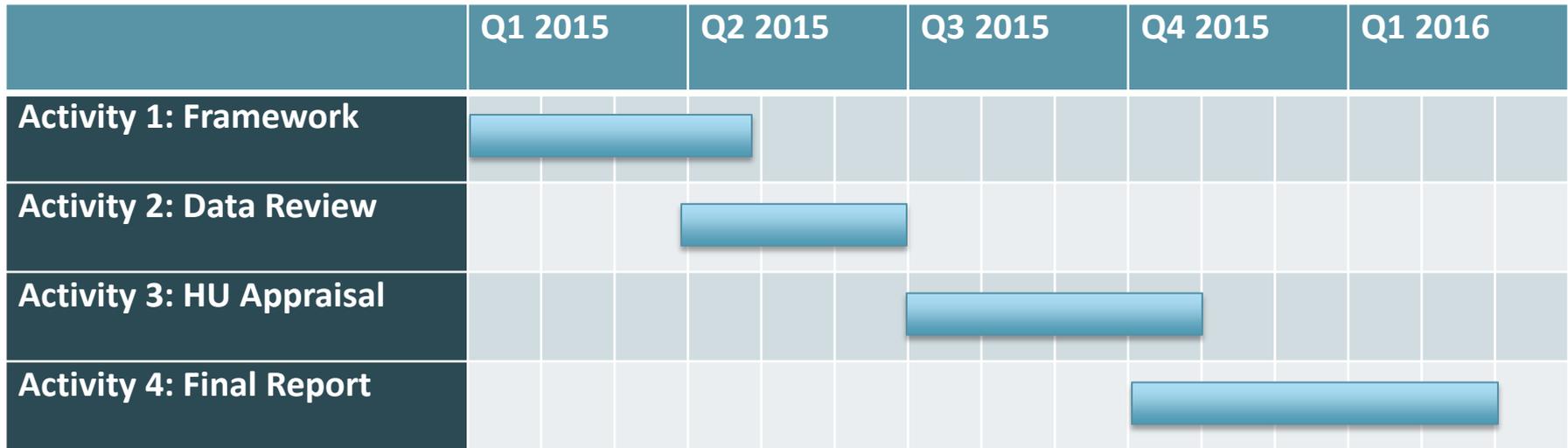
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REPORT

- ◆ Report will describe a management framework, its application to the specific selected hydrologic units, and the resulting assessment of water resources sustainability. It will include:
 - An overall description of the process used to conduct the assessment;
 - Recommendations regarding additional information needed to improve the accuracy and reliability of data used to derive the appraised values.
 - Examples of approaches to synthesizing results from various hydrologic units to effectively present trends in supply availability and/or use categories of special interest.
 - Example applications designed for use in developing priorities for future management activities that will account for economic and population growth while supporting a sustainable water supply and controlling the cost of the energy needed to provide that supply.



TIMELINE OF KEY ACTIVITIES





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