

Design Strategy and Outline for a Comprehensive Statewide Water Resources Management Plan

Scope of Services

Background and Purpose

At its 2nd regular meeting on June 5th, 2013, the Louisiana Water Resources Commission (LWRC) approved by unanimous vote a resolution requesting funding for the development of a comprehensive statewide water resources management plan. Citing the expanded understanding of the value of Louisiana's water resources, an expected increase in demand, and a progressively more complex economic and environmental matrix anchored by the needs of the recently adopted Comprehensive Master Plan for a Sustainable Coast, the LWRC established the definite need for such a long-term plan.

Much work and effort already has been poured into the creation of a viable water resources management infrastructure, and Louisiana today is much farther along the path towards responsible and pro-active management than even just 10 years ago. The purpose of this Scope of Services is not to create the fully realized plan as called for by the LWRC, but rather to establish the outline or framework for the development of this plan at a later date. This is the next step towards the refinement of a balanced, flexible program that fits within the existing management framework and provides processes for the considered development and conservation of the state's water resources to meet future needs for public supply, agricultural and industrial use, transportation, recreation, and coastal protection.

Scope of Services

Phase I – Assessment of Louisiana's Water Budget

1. Establish a firm understanding of the current and projected water demands in the state for all uses (as listed above), including coastal restoration.
 - a. Detail what amounts and sources of water are necessary and/or achievable to meet the goals as established by the Comprehensive Master Plan for a Sustainable Coast.
 - b. Assess the projected impact of these demands on the allocation of the state's water resources for all current and projected uses.
2. Assess the sustainability of current and projected water usage in Louisiana by region and watershed, including available resources, capacity, and limitations. This assessment will include a comprehensive review of published data and research, including that found in the U.S. Geological Survey's annual state water use report, DOTD's Reservoir Priority Program report, and The Nature Conservancy's Freshwater Assessment project, among others.

- a. Evaluate current sustainability challenges in Louisiana, as well as current and projected demands for water usage by stakeholder groups (industry, agriculture, power generation, public supply, etc.) by building upon work previously conducted by Fenstermaker and others.
- b. Assess competing demands for water usage and provide recommendations for long-term solutions within the state's existing legal framework.
- c. Provide specific definitions of Louisiana's rights to shared water resources (lakes, bayous, rivers, etc.) with other states, and recommendations on articulating and protecting these rights.

Phase II – Planning and Allocation

1. Provide recommendations on developing a strategic interface between ground and surface water usage priorities and the needs of reservoir and port development, flood protection, and coastal restoration.
2. Identify and assess tools and/or processes currently utilized or available for water allocation and water infrastructure development policy-making, and provide recommendations for improvements. Such tools or processes may weigh any number of factors including water demand, water level and quality requirements, minimum flows, coastal restoration priorities, environmental protection, economic development opportunities, and sustainability.
3. Provide recommendations and cost expectations for 10-, 25-, and 50-year predictive models for water use growth, resource allocation, and infrastructure development by specific region, aquifer, watershed, or priority need.
4. Provide recommendations for a feasible capital improvement infrastructure program that addresses major priorities for water resources management in Louisiana (as established in Phase I of this scope), including alternative use scenarios, public/private partnerships, economic incentives, tax levies, and other options.