



Title: Surface Water Resource Development

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Organization: LSU AgCenter

State: LA **Region:** Southern

Year of Funding:

Theme: Water Policy and Economics

Situation: Louisiana is a surface water state. USGS reports 84% of all the water used in the year 2000 was from surface water sources. Even though only 16% of total water use was from ground water resources, three major aquifer systems are being depleted. Rice irrigation is estimated to be responsible for 67% of the water withdrawn from the largest of the aquifers being depleted. All current ground water consumption could be replaced by a fraction of the surface water available. Surface water resource development programs usually require many years and millions of dollars to accomplish. Concerns are frequently raised over increased flooding and water pollution caused by introducing more surface water into existing bayous or by building new reservoirs. This extension water resource program is targeted at business and industry, elected officials, the general public and agency representatives.

Objectives: The objectives of this education program include helping different audiences understand the benefits to them of surface water resource development and helping them understand which agencies can provide technical and financial assistance. The business and industry audience needs to understand the reduced pumping and water treatment costs available to them from pumping surface water rather than ground water. Much of Louisiana's ground water is high in salt, sodium, iron, manganese and pH. This is rarely the case for surface water. The general public needs to understand that proper planning will help reduce flooding and that introduction of surface water with high levels of dissolved oxygen will improve our ability to attain TMDL requirements of existing bayous. Another objective is to enhance an understanding that the introduction of additional surface water will increase flow in existing bayous in dry summer months and improve habitat. For those living in coastal communities, the introduction of surface water containing nutrients and sediment will help reduce erosion and subsidence of coastal wetlands. All audiences need to understand the role of the federal, state and local agencies.

Methods: Presentations have been made to representatives of federal, state and local agencies, business and industry groups, local government, service clubs and to the general public. Tours have been conducted of existing surface water development projects in Louisiana, Arkansas and Mississippi. Speakers from Texas, Arkansas and Mississippi have made presentations to all audiences at several half-day to two-day conferences. Power point presentations, conference proceedings and brochures have been provided to audiences and are available on our web site.

Partnerships: Federal agency partners include the Corps, USGS, and NRCS. State agency partners include Agriculture and Forestry, Wildlife and Fisheries, Transportation and Development, Health and Hospitals, Environmental Quality, and Natural Resources. Local partners include Soil and Water Conservation Districts, Levee Boards, Drainage Districts, Ground Water Conservation Districts, other Surface Water Districts, local government and industry and business groups.

Research: Most of the research incorporated has been related to water quantity and quality and has been developed by USGS and the Corps. The outreach function has integrated these agencies and the experience of the other agencies into a collaborative effort. No effort has been made to include this effort in formal education programs.

Resources: Existing projects have provided examples of what can be done in surface water resource development. It is much easier for audiences to understand what can happen in their communities if they can visit a community that has already accomplished a similar task. Agency and community representatives have been more than willing to share their experiences.

Results: We have one small project patterned after a similar project in Arkansas with an expected completion date of 2005. We have completed one major new reservoir project and have several more in development. We have funding for a Corps recon study of the Northeast quarter of the state and have requesting similar funding for a Corps recon study of the Southwest quarter of the state. We have ground water management legislation that recognizes the importance of surface water resource development.



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