

Development of a Groundwater Plan For Louisiana

Louisiana Water Resources Commission Workshop

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Setting the Stage

- Record Drought
- “Brown Marsh” Dieback
- Proposed Power Plants
- Declining Levels in Aquifers

Drought

- According to the National Drought Summary -- November 30, 1999. "...Conditions continue to worsen in Louisiana where severe drought (D2) is becoming entrenched."

“Brown Marsh”

- In the Barataria-Terrebonne Estuary
 - 17,000 acres of salt marsh converted to open water
 - 110,000 acres were severely impacted
 - 150,000 acres were moderately impacted

Executive Order MJF 2000-41

Saltwater Marsh Die-off Action Plan

- “the likely cause of the browning and/or die-off is a lack of fresh water flow resulting from record drought, record high temperatures, abnormally low water levels in the Mississippi River during the spring, and unusually low summer tides, the combination of which severely compounded the long-term effects of the nation's extensive levee system which limits natural fresh water flow to Louisiana's saltwater marshes;

Power Plants

- 13 companies preparing to build “merchant” power plants using once through cooling water
- One, proposed near Bogalusa, would have drawn 4-6 million gallons/day
- Sales to out of state utility customers

Declining Aquifer Levels

- Water levels in 3 aquifers that supplied 43 parishes were declining at over 1 foot/year
- Sparta Aquifer major focus of concern

State Water Policy Advisory Task Force

MJF 2000 – 44

- Recognized the “economic well-being of the state is inextricably connected to the use of freshwater from the state of Louisiana’s surface and aquifer sources”
- Even though water resources historically bountiful, sustaining ecosystems and multiple sectors, “some users have begun to experience freshwater shortages”

State Water Policy Advisory Task Force

MJF 2000 - 44

- As freshwater demands continued to rise, consideration must be given to factors such as...
 - the sufficiency of water availability for the future need of existing users and/or the environment
 - Protection/conservation of the state's freshwater resources
 - Viable options for optimum/more efficient use of the state's freshwater resources

State Water Policy Advisory Task Force

- 26 representatives from government, agriculture, business and industry, academia and civic/conservation NGO's were charged with delivering a final report to Governor Foster by February 15, 2001.

Duties of the Task Force

- Evaluating policy considerations, goals, and/or objectives relevant to the development, maintenance and/or implementation of a comprehensive water policy for the state of Louisiana on surface and groundwater management
- Evaluating current and future groundwater resources, demand, and alternatives for meeting demand

Duties of Task Force

- Evaluating maximum sustainable yields in LA aquifers
- Compiling regulations, policies and laws pertaining to water management in other states and outlining a potential water management plan in LA
- Preparing a comprehensive water policy emergency plan for LA in drought, hurricane or other crisis events

Duties of Task Force

- Analyze whether existing freshwater programs could be used or adapted to achieve environmentally beneficial effects, and costs of such projects
- Analyze technology such as remote sensing and computerized modeling to better manage water resources

Duties of Task Force

- Recommending and outlining the long and short term policy actions that may be implemented/instituted in Louisiana, including potential legislation addressing groundwater management for the 2001 Regular Session of the Louisiana Legislature.
- Recommend a timeline and identify resources for developing and implementing state water policy.

Louisiana Ground Water Management Commission

- Created July 1, 2001 by Act 446
- Office of the Governor charged with:
 - Determination of Critical Ground Water Areas
 - Response to emergency situations
 - Development of a comprehensive statewide water management program

Louisiana Ground Water Management Commission

- Development of Comprehensive Statewide Water Management Program
 - Plan presented to Legislative Oversight Committees prior to January, 2003
 - Legislation to be prepared for consideration during 2003 Regular Legislative Session

Comprehensive Statewide Water Management Program

- Evaluation of state's groundwater resources
- Types and Source of Data
- Sustainability of aquifers
- Reassessment of Critical Ground Water Areas
- Alternatives to Groundwater Use
- Available surface water resources
- Recycling of used or treated waters

Comprehensive Statewide Water Management Program

- Solicited proposals for assistance, 2 parts:
 - Identify the state's water resources and assess their current use and available scientific information
 - Establish considerations, guidelines, and procedures for the effective management of the state's water resources and data collection

Comprehensive Statewide Water Management Program

Contract Awarded to:

C.H. Fenstermaker & Associates, Inc.

LBG-Guyton Associates

Hydro-Environmental Technology

**Onebane, Bernard, Torian, Diaz, McNamara
& Abell**

Comprehensive Statewide Water Management Program

- Part 1 accepted by Commission on June 28, 2002
- Part 2 accepted by Commission on December 13, 2002

Commission Recommendations

- Fenstermaker Report used by Commission as a key resource in the development of a comprehensive statewide management plan.

Commission Recommendations

- Recognized that any new water management commission would be responsible for the management of groundwater resources.
- Recognition that groundwater and surface water were inseparable, commission should develop a coordinated plan for the state's water resources at a later date.

Commission Recommendations

- Members should include:
 - Governor
 - Departments of:
 - Agriculture and Forestry
 - Environmental Quality
 - Wildlife and Fisheries
 - Natural Resources, Office of Conservation
 - Economic Development
 - Health and Hospitals
 - Transportation and Development

Commission Recommendations

...responsible for the promulgation of rules and regulations for the administration and management of the state's water resources to ensure their continued sustainability and shall promote public education and implementation of conservation measures.

Commission Recommendations

- Statutory designation of a water management agency for the state
 - Centralized planning with local participation
 - Water quality program to remain at DEQ
 - Public health program to remain at DHH
 - Cooperative agreements between agencies
 - Management authority
 - Serve as staff for Commission

Commission Recommendations

Management Commission Responsibilities

- Manage and protect state groundwater resources
- Set statewide water policy and management objectives
- Promulgate rules and guidelines for water management
- Responsible for compliance and enforcement
- Conduct public meetings and hearings
- Coordinate and receive information from District Advisory Boards

Commission Recommendations

Management Commission Responsibilities

District Advisory Boards

- Advise Management Commission
- Encourage and enable public participation
- Regional stakeholders
- Funded by legislative authority
- Conduct studies and collect/report on data

Commission Recommendations

Statutory designation of a water management agency for the state – Water Resources Division, Department of Natural Resources.

Division to include administrative, data management, regional and field support staff.

Commission Recommendations

Water Resources Division responsible for:

- assessment and management of water supply availability and use
- registration and permitting of new water wells
- database management
- water well driller's licensing, well construction and plugging standards
- cooperative program with USGS (groundwater)

Commission Recommendations

Sustainability issues:

- Sustainability
- Ground Water Emergency
- Critical Ground Water Area
- Potential Critical Ground Water Area
- Ground Water Stress Area

Commission Recommendations

- Public Education
- Continuation of current data collection
- Development of emergency plan
- Inter-jurisdictional relationships
- Advisory Committees
- Work with existing entities
- Review actions of Act 446 Commission

Act 49 of the 2003 Legislative Session

- Became effective July 1, 2003
- Incorporated many of the Commission recommendations on responsibilities and authorities
- 19 member Commission housed in DNR, Office of Conservation
- Ground Water Resources Division created
- Advisory Task Force of 50 members

Developing Water Policy Then and Now

- Circumstances
- Champions
- Information
- Stakeholders