

Louisiana's Statewide Groundwater Management Plan

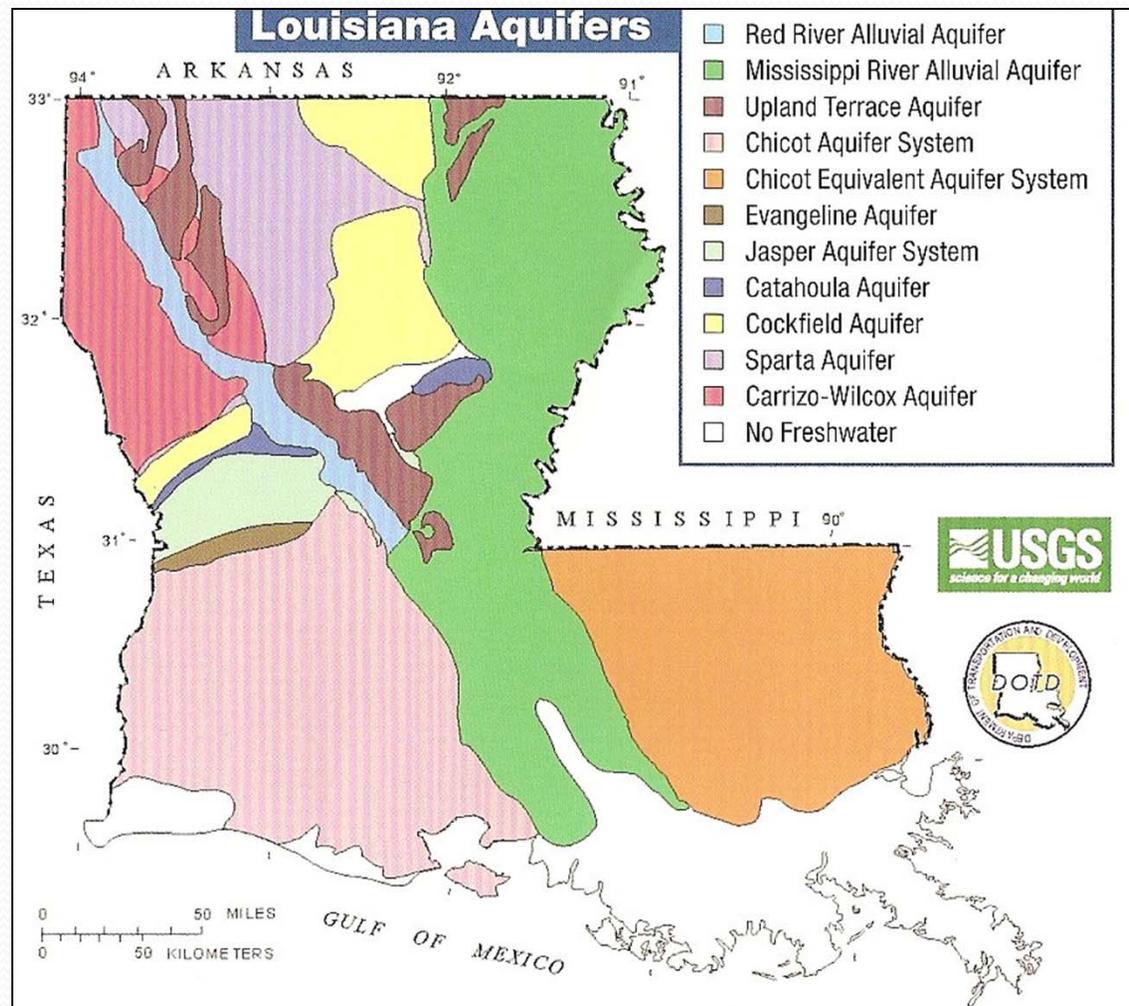
LACD RC&D Committee Meeting
January 12, 2012



Louisiana Water Resources

- Louisiana has abundant water resources
 - Surface Water:
 - 66,295 miles of rivers & streams;
 - 1,684 square miles of Lakes & reservoirs;
 - 9,191 square miles of wetlands.
 - Ground Water:
 - Thirteen major aquifer systems;
 - “Much of Louisiana’s ground water is suitable for use with little or no treatment.”
 - Statistics and quote from “The Louisiana Regional Restoration Planning Program: Final Programmatic Environmental Impact Statement, January 2007.”

Louisiana's Primary Groundwater Aquifers



Why Ground Water is Important

- **2 ½ million Louisianans** use ground water for residential purposes (395 million gallons/day).
- **Many Industries** rely heavily on ground water (270 million gallons/day).
- **Agriculture and Aquaculture**
 - 4.2 million gallons/day for livestock.
 - 690 million gallons/day for irrigation of crops.
 - 200 million gallons/day for aquaculture.
- **Total Ground Water Use**
 - Approximately 1.6 Billion gallons/day.

All statistics based on “Water Use in Louisiana, 2005”, La. DOTD (USGS)

Percentage Ground Water Use by Type

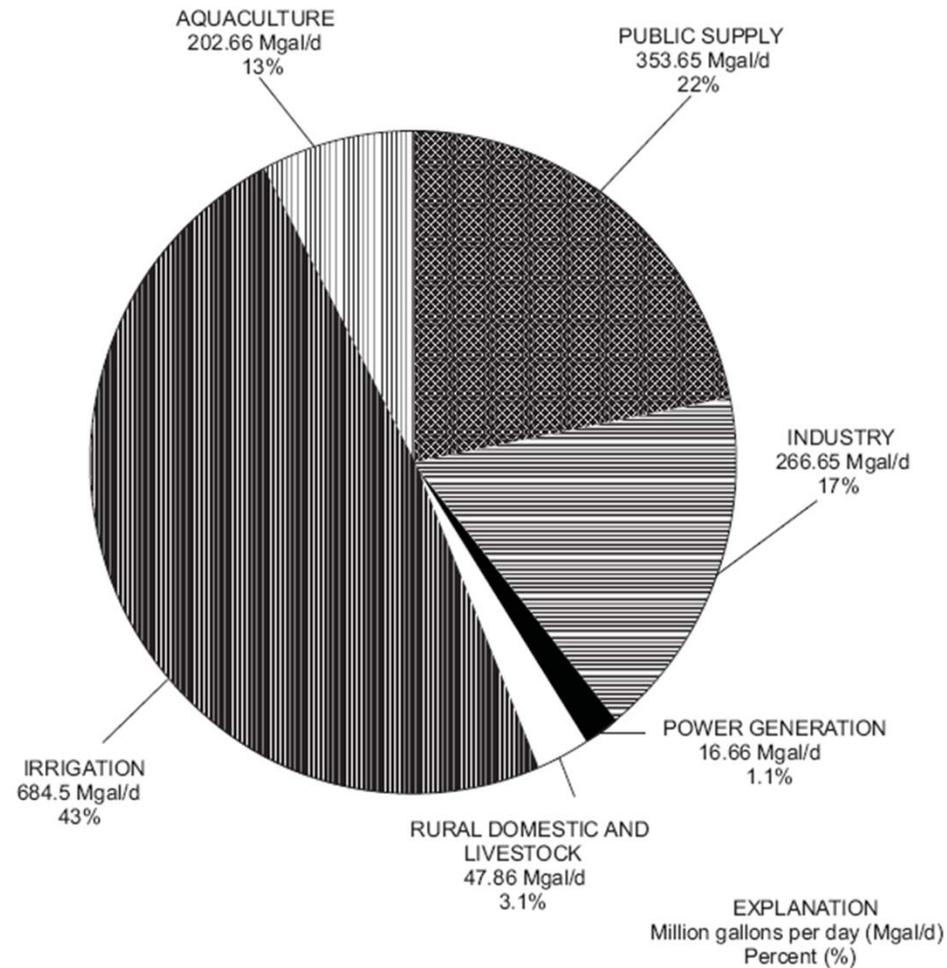


Figure 13. Ground-water withdrawals in Louisiana, 2005.



Water in Louisiana

Where We Were

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1803 to 2001

- No state management of water in Louisiana
- Emphasis on water removal

Water in Louisiana

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1972

- Louisiana Legislature placed DOTD in charge of water well drillers licensing, construction and registration requirements

Water in Louisiana

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2001

- Louisiana legislature passed Act 446
 - Recognized the need for a statewide plan
 - Established the Ground Water Management Commission
 - Established the Ground Water Management Advisory Task Force
 - Established most of the current legal structure for groundwater management including well registration



Louisiana's Current Ground Water Management Laws

- **2003:** Act 49 – Placed GWRC and GWMATF under Conservation
- **2005:** Act 225– Established Area of Groundwater Concern and Critical Area of Groundwater Concern
- **2007:** Act 471– Provided sales tax exemptions for water conservation equipment used in the Sparta District
- **2008:** Act 581– Provided for the imposition of civil penalties for violations of regulations
- **2009:** Act 437–Transferred duties relative to groundwater resources, water wells and drillers from DOTD to DNR OC
- **2010:** HCR 1–GWRC to report on ground and surface water resources
- **2011:** Act 301–Changed quorum requirements for GWMATF



Louisiana's Current Ground Water Management Laws

Results of the 2001 – 2011 Acts are:

- RS 38:3097 – 3098.7
Establishes the powers and duties of
Commissioner of Conservation and Ground
Water Resources Commission
- LAC Title 56 Part I. Water Wells
- LAC Title 43 Part VI. Subpart 1. Ground Water
Management

Commissioner of Conservation



- Manage Ground Water Resources
- Most advantageous use of the resource
 - R.S. 38:3097.3.A
 - Historic Use of Ground Water Resources
- Office of Conservation provides technical staff functions
 - R.S. 38:3097.3.B



Commissioner's Management Tools

- **Water Well Registration and Evaluation**
 - Notice of Intent to Drill is submitted to the Office of Conservation for evaluation
- **Collection of Water Data**
 - SONRIS database
- **Areas of Ground Water Concern**
 - Can't sustain under current use
 - Critical Areas of Ground Water Concern
- **Interagency Cooperation**
 - La. DNR, DOTD & USGS
- **Ground Water Emergency Declarations**
 - Includes authorization of the use of Drought Relief Wells



Water Well Registration and Evaluation

- Register Exempt Wells **After Installation**, e.g.
 - Domestic Wells
 - Drilling Rig Supply Wells
 - Replacement Wells
- Evaluate Non-Exempt Water Wells **Prior to Installation**, e.g.
 - Industrial Wells
 - Irrigation Wells
 - Public Supply Wells: Make a Determination
 - Place Restrictions
 - Allowable Production
 - Spacing
 - Metering
 - Take No Action, or
 - Require Additional Information

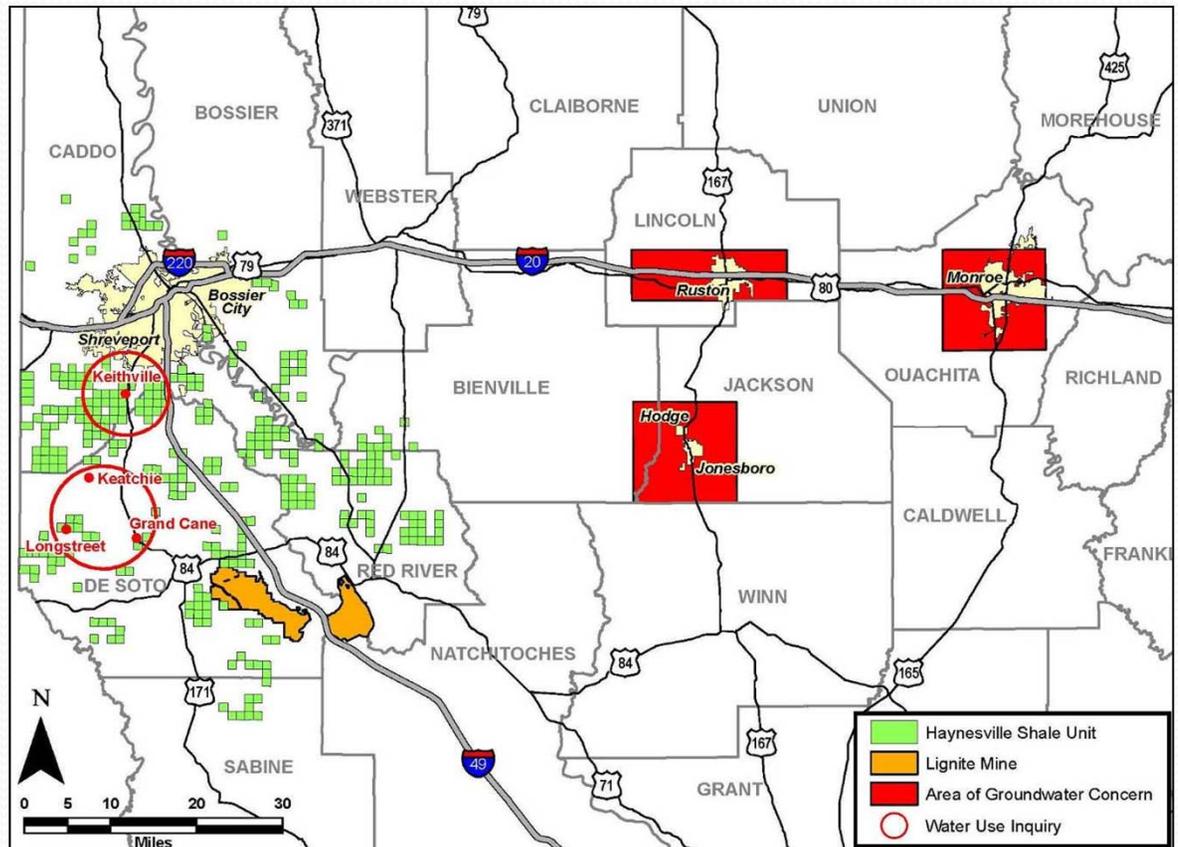


Areas of Ground Water Concern

- Determine ***Areas of Ground Water Concern*** and designate ***Critical Areas of Ground Water Concern***.
 - **Area of Ground Water Concern**
An area in which under current usage and normal environmental conditions, sustainability of an aquifer is not being maintained.
 - **Critical Area of Ground Water Concern**
An area of ground water concern in which the commissioner determines that sustainability cannot be maintained without withdrawal restrictions.
- **La. R.S. 38:3097.6**
Application and Hearing Requirements.

Existing Areas of Ground Water Concern

- Three existing Areas:
 - **Monroe-West Monroe**
(Ouachita Parish)
 - **Ruston**
(Lincoln Parish)
 - **Jonesboro-Hodge**
(Jackson & Bienville Parishes)



Other State Departments' Role in Regulation of State's Water

- **Dept. of Environmental Quality**
Protects water resources from contamination (R.S. 30:2074, et seq. & 30:2015.1)
- **Dept. of Health & Hospitals**
Protects drinking water supplies (R.S. 40:735 & Safe Drinking Water Act Amendments of 1996, PL 104-182).
- **Dept. of Transportation and Development**
Administers and gathers ground water data; registers wells and ground water users, establishes construction standards for water wells (R.S. 38:3091).
- **Dept. of Wildlife & Fisheries**
Administers Natural and Scenic River Systems (R.S. 56:1841, et seq.).
- **Dept. of Agriculture & Forestry**
Regulates the use and application of pesticides and through the Office of Soil and Water Conservation advises and assists State Soil & Water Conservation Districts with implementing water and soil conservation activities and projects. (R.S. 3:3201 & R.S. 3:201).

Ground Water Emergency Response

- Unanticipated occurrence causing ground water sources to become immediately unavailable or drought conditions necessitating use of temporary drought relief wells. R.S. 38:3097.2.
- Authorize use of drought relief wells. R.S. 38:3097.3.C(9)
- Emergency order may:
 - Fix allowable production,
 - Spacing and depth of wells
 - Ground water needed for human consumption has priority.
 - R.S. 38:3097.3.C(8).
- Emergency order Issued
 - For Keithville and Ellerbe Road areas of interest
 - Places volume restrictions based on use



Ground Water Resources Commission

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March 5, 2009

Resolution requesting DNR to seek funding to “further its task of developing a Statewide Groundwater Management Plan”.



Department of Natural Resources

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Sept 2009

Solicited input, review and comment from commission members on development of final Scope of Services

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May 2010

DNR executes contract with Ecology and Environment, Inc. to research and prepare recommendations for a Statewide Groundwater Management Plan



Ecology and Environment, Inc.

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September 2010

Questionnaires submitted to GWRC and GWMATF members and two public workshops held in Alexandria. Voluntary interviews held

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October 2011

Draft recommendations published and distributed to all stakeholders for review and comment

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November 2011

Five public outreach meetings held across the state

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December 2012

Recommendations published



Louisiana's 13 Aquifers: One Size Does Not Fit All

Statewide Ground Water Management Plan
Development Challenge:

- Aquifer
- Surface Water
- User Demand Variability

Each aquifer has unique geologic and hydrologic characteristics, surface water alternatives and user demands.

i.e., The Chicot aquifer system is different from the Sparta aquifer system and what works for one may not be effective for the other.



Key Ground Water Management Plan Components

- Monitoring
- Evaluation
- Education
- Registration
- Auditing
- Enforcement
- Emergencies
- Incentives
- Collaboration



Ground Water Resources Commission

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January 19-20, 2012

Meeting to discuss recommendations from E & E and
vote to implement specific action items.