



# Ground Water Resources Commission Meeting

Wednesday, December 7, 2011



# Mr. John Adams

## DNR Office of Conservation

# Adoption of Meeting Summary

March 14, 2011



# Ground Water Resources Program Update



# Mr. John Adams

## DNR Office of Conservation

- **Water Well and GW Management Regulation Amendments Update**
  - **Katrina & Rita Water Well Repair & P&A Update**
  - **Haynesville Shale Frac Water Supply Implementation Update**
- **Statewide Water Well Notification Audit & Enforcement Update**
- **EBR Metro Council & Baton Rouge City Resolution No. 48944**
  - **Public Outreach and Education**



# Regulatory Amendment Activity

## Title 56

### 3/20/2011 Amendment

- Reg Update / Clarifications
- Form Revisions
  - Driller Registration - GPS Lat. / Long.

### 12/20/2011 Amendments

- Additional Clarifications
- Rig Supply Well Construction

## Title 43

### 8/20/2011 Amendment

- Driller Registration Satisfies Domestic Well Owner Notice



# Hurricanes Katrina & Rita Water Well Damage Repair & P&A

## Division of Administration OCD Disaster Recovery Unit Project

Contract Procurement Underway

Oct 24, 2011:	Bid Notice Publication
Nov 30, 2011:	Pre- Bid Meeting
Dec 14, 2011:	Bid Submission Deadline
Feb 2012:	Projected Contractor Selection
Aug 2012:	Projected Project Completion



# Haynesville Shale Frac Water

## Mandatory Drilling & Frac Water Supply Source and Volume Reporting

### **Actions of the Commissioner:**

- 1. Requires operators to report water sources and volumes**
- 2. Issued on September 15, 2009**
- 3. Enforceable effective October 1, 2009**
- 4. Revised form on March 1, 2010**
- 5. Revised form on February 25, 2011**
- 6. Provides valuable groundwater resource management tool**
- 7. Statistics**



# Haynesville Shale Frac Water

## Mandatory Drilling & Frac Water Supply Source and Volume Reporting

Form Rev. 2/25/2011

Surface Water Supply Tracking:

- Public v. Private Sources
- CEA Sources

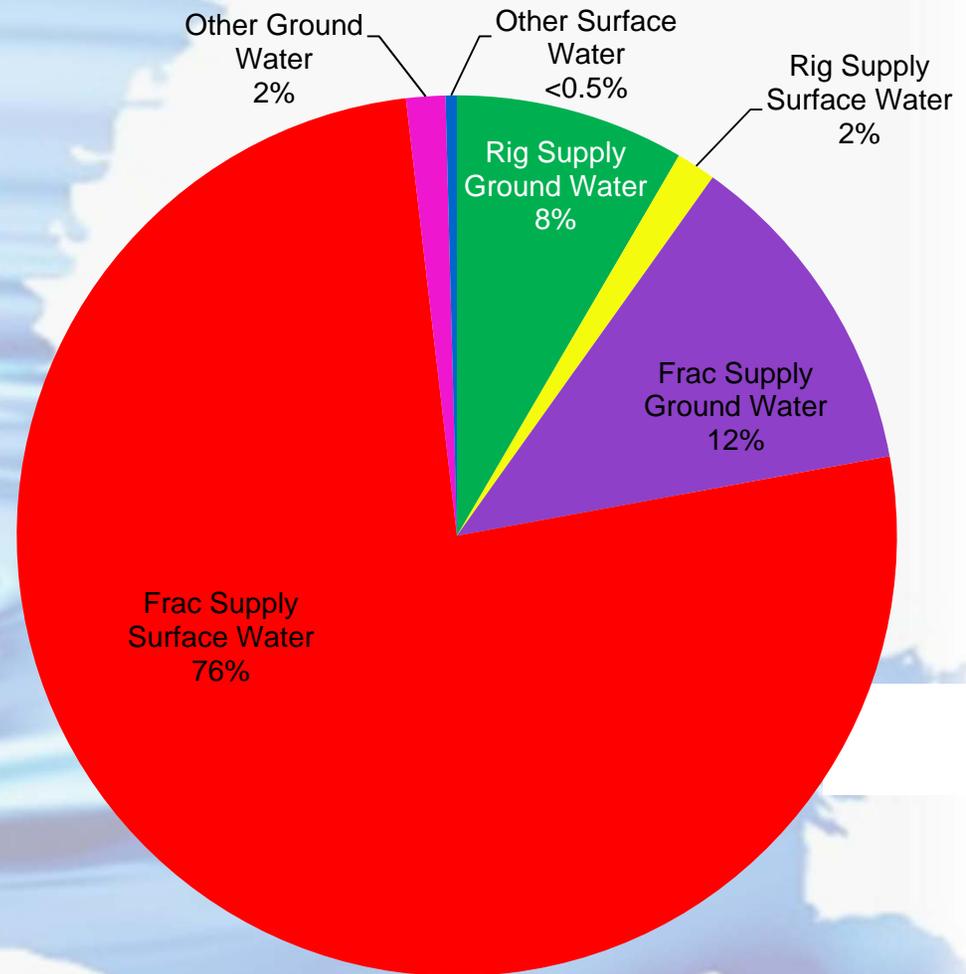
FORM WH-1 Supplemental Page 3 – FILE ONLY FOR WELLS THAT HAVE BEEN HYDRAULICALLY FRACTURE STIMULATED					
SERIAL NO.	WELL NAME & NO.	WORK PERMIT NO.			
OPERATOR		OPERATOR CODE			
For hydraulically fractured wells, list below all water sources and corresponding water volumes used in drilling, completion, stimulation and workover operations. (Direct questions to the Groundwater Resources Section at (225) 342-8242). <b>NOTICE – No water obtained from a domestic well may be used in E&amp;P operations without prior Office of Conservation authorization.</b>					
DRILLING RIG SUPPLY					
GROUND WATER SOURCE WELL # (DOTD or DNR #)	OTHER WATER SOURCE (Name of surface water body, public supply, etc.)	LOCATION (surface water sources only)		DRILLING RIG SUPPLY	
		LATITUDE	LONGITUDE	VOLUME (gallons)	
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
HYDRAULIC FRACTURE STIMULATION					
GROUND WATER SOURCE WELL # (DOTD or DNR #)	OTHER WATER SOURCE (Name of surface water body, public supply, etc.)	LOCATION (surface water sources only)		STIMULATION VOLUME (gallons)	
		LATITUDE	LONGITUDE	(hydraulic fracturing)	
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
		<input type="checkbox"/> PUBLIC <input type="checkbox"/> PRIVATE			
TOTAL GROUND WATER VOLUME USED IN ALL OPERATIONS (gallons)	NO. OF FRAC STAGES	ARE ANY OF THE ABOVE WATER SOURCES UNDER A DNR ACT 955 SURFACE WATER USE C.E.A.? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PROVIDE DNR C.E.A. # OR CHECK THIS BOX IF C.E.A IS PENDING <input type="checkbox"/>			
<b>CERTIFICATE:</b> I certify that, to the best of my knowledge, all water used in operations conducted on this well are from the above listed sources and these sources are being used for the above listed purposes in accordance with all applicable laws and regulations. I further understand that water produced from domestic water wells shall not be used for these purposes without prior authorization by the Office of Conservation.					
Signature: _____		Title: _____		Date: _____	



# Haynesville Shale Natural Gas Well Development Drilling and Stimulation Operations

Reported Water Usage from 10/1/2009 to 12/5/2011 WH-1 Information

Source	Volume (Gallons)
Frac Groundwater	1,160,506,359
Frac Surface Water	7,214,911,276
Drilling Rig Groundwater	799,029,710
Drilling Rig Surface Water	138,044,513
Other Groundwater	136,648,897
Other Surface Water	38,910,138



**As of 12/5/2011**  
**1,755 Reporting wells**  
**2,432 Total work permits**



# Statewide Well Notification Audit and Enforcement

## Completed Comprehensive Statewide Audit for 2009 - 2010

### 2009 Schedule

January	February	March	April	May	June	July	August	September	October	November	December
Caddo, Red River, Bossier, DeSoto					Calcasieu, Cameron	Jeff Davis, Vermillion	Acadia, Lafayette	Allen, Evangeline, St. Landry	Bienville, Webster	Claiborne, Jackson, Lincoln	Ouachita, Morehouse, Union
<b>CARIZZO – WILCOX (Haynesville)</b>					<b>CHICOT</b>			<b>SPARTA</b>			

### 2010 Schedule

January	February	March	April	May	June	July	August	September	October	November	December
EBR, E. Feliciana, WBR, W. Feliciana	Livingston, St. Helena, Tangipahoa, Washington	St. Tammany	E. Carroll, Madison, Richland, W. Carroll	Catahoula, Concordia, Franklin, Tensas	Caldwell, Grant, LaSalle, Natchitoches, Sabine, Winn	Beauregard, Vernon	Avoyelles, Pointe Coupee, Rapides	Assumption, Iberia, Iberville, St. Martin, St. Mary	Ascension, St. Charles, St. James, St. John	Jefferson, Lafourche, Terrebonne	Orleans, Plaquemines St. Bernard
<b>SOUTHEAST LOUISIANA</b>			<b>MS RIVER ALLUVIAL</b>		<b>OTHER</b>						



# Statewide Well Notification Audit and Enforcement

Audit Entire 2011 Schedule by Dec 31, 2011:

- Complete Notification Database Entry Update
  - Complete Notification and Registration Database IT Improvements
- Optimize Audit Accuracy and Efficiency

## Annual Statewide Schedule - Beginning 2011 and proceeding annually

January	February	March	April	May	June	July	August	September	October	November	December
Bienville, Bossier, Caddo, Desoto, Red River, Webster	Claiborne, Jackson, Lincoln, Morehouse, Ouachita, Union	Acadia, Calcasieu, Cameron, Jeff Davis, Vermillion	Allen, Beauregard, Evangeline, Lafayette, St. Landry	EBR, E. Feliciana, Livingston , St. Helena, WBR, W. Feliciana	E. Carroll, Franklin, Madison, Richland, Tensas, W. Carroll	Caldwell, Grant, LaSalle, Natchitoches, Sabine, Winn	Avoyelles, Catahoula, Concordia, Rapides, Vernon	Assumption, Iberia, Iberville, Pointe Coupee, St. Martin	Ascension, St. Charles, St. James, St. John, Tangipahoa, Washington	Orleans, St.Tammany	Jefferson, Lafourche, Plaquemines, St. Bernard, St. Mary, Terrebonne



# Statewide Well Notification Audit and Enforcement Results

<b>Parish</b>	<b>Actions</b>	<b>Parish</b>	<b>Actions</b>
Caddo	71	Webster	43
Red River	28	Claiborne	33
Bossier	65	Jackson	23
DeSoto	53	Lincoln	47
Calcasieu	83	Ouachita	39
Cameron	24	Morehouse	97
Jefferson Davis	88	Union	27
Vermilion	161	East Baton Rouge	33
Acadia	114	East Feliciana	24
Lafayette	91	West Baton Rouge	5
Allen	31	West Feliciana	8
Evangeline	40	Livingston	36
St. Landry	95	St. Helena	24
Bienville	60	Tangipahoa	126
		Washington	65
		St. Tammany	471



# Statewide Well Notification Audit and Enforcement Results

<b>Parish</b>	<b>Actions</b>	<b>Parish</b>	<b>Actions</b>
East Carroll	65	Beauregard	33
Madison	48	Vernon	22
Richland	69	Avoyelles	60
West Carroll	64	Pointe Coupee	16
Catahoula	12	Rapides	98
Concordia	11	Assumption	4
Franklin	57	Iberia	72
Tensas	17	Iberville	14
Caldwell	20	St. Martin	84
Grant	7	St. Mary	12
LaSalle	0	Ascension	32
Natchitoches	22	St. Charles	5
Sabine	29	St. James	3
Winn	17	St. John	3



# Statewide Well Notification Audit and Enforcement Results

<b>Parish</b>	<b>Actions</b>
Jefferson	5
Lafourche	43
Terrebonne	15
Orleans	2
Plaquemines	3
St. Bernard	0

**Total Actions Issued Statewide for 2009 – 2010**

**2984**



# EBR Metro / City of Baton Rouge Resolution No. 48944

Adopted Oct 26, 2011

Urges and Requests OC to Hold a Hearing for:

- Testimony on Ground Water Level Decline in the BR Area
- Possible Acceleration of Salt Water Intrusion Across the BR Fault

And if Warranted, Requests OC to:

- Declare EBR Parish an Area of Ground Water Concern
- Take Action as Necessary for Aquifer Sustainability

## Capital Area GW Conservation Commission Law Consideration

- Nov 8, 2011 OC Request for Capital Area GW Cons Commission Plans to Address BR Fault Salt Water Encroachment and Nearby Public Supply Wells



# South Caddo Parish Ground Water Emergency

Ground Water Emergency Declared August 19, 2011

Carrizo-Wilcox and Upland Terrace Aquifers – Keithville and Ellerbe Rd. Areas

- Allows continued use of ground water for human consumption and agricultural purposes
- Prohibits residential lawn and golf course fairway watering
- Limits washing of vehicles and equipment beyond what is necessary to achieve proper maintenance
- Prohibits the filling of ponds for aesthetic purposes
- Prohibits the filling of pools beyond maintenance purposes
- Prohibits industrial wells from withdrawing water beyond what is necessary for human consumptive and agricultural purposes and limits withdrawal to 300 gallons per day for any other reason without prior authorization



# South Caddo Parish Ground Water Emergency

Order to remain in effect until sound and objective information indicating conditions of the aquifers have improved and no longer pose a significant risk of adverse impact to the aquifers or existing water wells.

## Agency Action

- Local and Regional Governing Authorities Input
- Public Notification, Education and Outreach
- LSU Shreveport Monitor Well Network
- Local Rainfall Measurement Data
- Monthly Status Updates
- Complaint and Inquiry Response and Tracking
- Periodic Area Inspections



# Public Outreach and Education

- DNR Sonris to Sunset Continuing Education Courses
  - Annual Water Well Driller Licensing Requirements
    - 3 - One Hour Courses Offered in 2011
    - Considering Full Credit (6 Hour) Option for 2012
- Ground Water Management Plan Recommendations
  - 5 Public Meeting and Open Public Comment Period
  - Baton Rouge, Crowley, Alexandria, Shreveport & Ruston
- South Caddo Parish Ground Water Emergency
- 2011 LRWA Operator Training Partnership
- LSU AgCenter / NRCS Partnership
  - Irrigation Well Owner Fact Sheet
  - 2012 Local/Regional Agriculture Community Outreach



# Mr. John Adams

## Sparta Ground Water Commission

### Request for Monitor Well Funding

Union County Water Conservation Board

Sparta Aquifer Recovery Monitoring Project

28 - Total Sparta Recovery Monitor Wells

7 - North Louisiana Sparta MWs

\$35,370 for FY 2011 (7/1/2011 – 6/30/2012)



**Secretary Scott Angelle**

**Recommendations for a Statewide  
Ground Water Management Plan**



# Discussion on Recommendations For A Statewide Ground Water Management Plan



# 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 Historical Ground Water Management Laws

1803 to 2001

No state management of water in Louisiana

Emphasis on water removal



# Louisiana's Current Ground Water Management Laws

- 2001 Act 446 – established GWRC, GWMATF and current legal structure for ground water management
- 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 which 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



# Office of Conservation Administrative Actions

- Aug. 2005 Order AGC-1-05 – Established 3 areas of ground-water concern in the Sparta District
- Mar. 2008 GS-01 – well owner need not wait 60 days, but may begin construction of well as soon as evaluation is complete
- July 2008 GS-02 – if a rig supply well will be transferred to land owner, an evaluation is required
- Aug. 2008 Memo - to oil and gas well operators informing them of imitations on drilling rig supply wells
- Dec. 2008 GS-03 – expedites evaluations of water wells used for agricultural irrigation
- Feb. 2009 GS-04 – clarifies procedure for registering drought relief wells
- Feb. 2009 Order 2009-GW001 – order establishing conditions for use of drought relief wells



# Office of Conservation Administrative Actions

- June 2009 – Commissioner issued Ground Water Emergency Response Contingency Plan
- Aug. 2009 Memo – to community public supply well owners informing them of notification requirements and a compliance audit
- Oct. 2009 GS-05 – clarifies that domestic wells can not be used for non-domestic purposes
- Oct. 2009 WH-1 – required operators to include source and volume of all water used for oil and gas well development
- Nov 2009 Memo – to non-community public supply well owners informing them of notification requirements and a compliance audit
- May 2010 GS-06 – clarifies procedure to report observance of naturally occurring methane or natural gas
- Mar. 2011 Memo – informing drillers of presence of natural gas releases in Toledo Bend Reservoir
- May 2011 Memo – to all licensed drillers informing them of the requirement to include GPS coordinates for all well locations



# Office of Conservation Regulatory Amendments

- **Feb. 2009** – implement regulations authorized by 38:3097.1 et al
- **Feb. 2010** – amend definitions in regulations to be consistent with 38:3097.1 et al
- **Nov. 2010** – provides for oil and gas well produced water to be used for hydraulic fracture stimulation operations
- **Mar. 2011** – provided typographical changes necessary as a result of Act 437 and required drillers to include coordinates on registration forms
- **Aug. 2011** – the drillers registration can satisfy the requirement of owner notification for domestic or drilling rig supply wells
- **Dec. 2011** – requires corner posts around certain drilling rig supply wells and provides for wells in storm surge areas



# Commissioner of Conservation

- Empowered and responsible for the administration of all matters related to the management of the state's groundwater resources
  - Most advantageous use of the resource
  - Consistent with the protection, conservation and replenishment thereof



# Commissioner's Management Tools

- Driller Licensing, Water Well Notification, Evaluation and Registration
  - Notice of Intent to Drill is submitted to the Office of Conservation for evaluation. Drillers register all wells after well installation.
- Collection of Ground Water Data
  - SONRIS database
- Establish Areas of Ground Water Concern
  - Significant sustainability issues under current use.
    - Critical Areas of Ground Water Concern
- Interagency Cooperation
  - La. DNR, DOTD, USGS, etc.
- Ground Water Emergency Declarations
  - Includes authorization of the use of Drought Relief Wells.
- Enforcement
  - Can issue civil penalties for violations of regulations



# Ground Water Resources Commission

- Review contested orders of commissioner restricting wells
- Review rules and regulations
- Review emergency contingency plans
- Continue the development, in cooperation with the Commissioner, of a statewide ground water resource management program



# Ground Water Resources Commission

March 5, 2009

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



# Department of Natural Resources

- Sept 2009 - Solicited input, review and comment from commission members on development of final Scope of Services
- 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.

- Sept 2010 Questionnaires submitted to GWRC and GWMATF members and two public workshops held in Alexandria
- Voluntary interviews held
- Oct 2011 Draft recommendations published and distributed to all stakeholders for review and comment
- Nov 2011 Five public outreach meetings held across the state



# Ecology and Environment, Inc.

The next step in the ongoing evolution of the  
Statewide Ground Water Management Plan

December 2011

Recommendations Released



# Key Ground Water Management Plan Components

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



# 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.



# Monitoring/Evaluation

- Aquifer Data Collection
  - Increase Data Collection Quantity
  - Increase Data Reporting Frequency
- Aquifer Sustainability
  - Aquifer Modeling
  - Groundwater Demand Projection



# Education/Outreach

- Resource Awareness
- User Rights/Responsibilities
- Aquifer Demand Impacts
- User Stewardship Obligations
- Conservation Measures



# Registration/Auditing/Enforcement

- **Comprehensive Active Well Registration**  
(prior to 1984 only large volume public supply wells required registration)
- **Well Owner/Driller Compliance**
- **Agency Implementation and Accountability**



# Incentives/Collaboration/Emergencies

- Surface Water Alternatives
- Conservation Measures
- Water Distribution/Infrastructure Repairs/Upgrades
- Greater Communication Between Agencies



# Ground Water & Louisiana GW Management Plan Recommendations

## 2 Tiers

- Tier 1 – short term solutions implementable within existing laws and regulations
- Tier 2 – long term (5 – 30 year) solutions that require legislative and/or regulatory amendments



# Registration

- Tier 1
  - Place burden of filing notifications on driller who will be prevented from installing wells without proper notification to DNR
  - Because the forms contain much common data, the common data in the forms should be consolidated with separate sections for the additional data. Parish and Coordinates should be added and they should be integrated into SONRIS
- Tier 2
  - DNR amend regulations to require the driller to obtain proof from the owner that prior notification was provided and that the OC issued a written determination that the evaluation is complete. Failure should result in civil penalties



# Evaluation

- Tier 1

- Current law provides for evaluation and use restrictions when necessary, continue current procedure to evaluate sustainability of the groundwater resources under the current strict guidelines
- Conservation should:
  - Research other state and federal definitions
  - Implement aquifer modeling if warranted
  - Consider proposing regulatory amendments to utilize both concepts
- Update and revise current agency water well evaluation checklist procedures to clearly document use of drawdown calculations that consider both the nearest well location and the shallowest well within the 1/4 mile radius or cone of depression, whichever is greater



# Evaluation (cont.)

- Tier 1
  - Current static water level gradient maps should be developed and maintained as feasible to accurately identify potential impacts caused by new significant drawdown in an aquifer. The maps could be integrated into the SONRIS GIS either as a functional or reference layer
- Tier 2
  - Request the legislature to develop a program to fund the development of aquifer-wide groundwater availability models for impacted aquifers, especially for the Sparta and Carrizo-Wilcox aquifers. Eventually extend program to all aquifers that have projected supply gaps



# Education

- Tier 1
  - The GWRC and OOC should encourage the Secretary of LDE and BESE to take necessary actions to ensure that groundwater conservation education be specifically included in the required teacher grade level expectations for 3<sup>rd</sup> through 6<sup>th</sup> grade and other strategic grades if funding is available.



# Emergencies

- Tier 1
  - GWRC should pass a motion to recommend that the OC initiate, assemble and maintain an ad-hoc standing committee of agency representatives from DHH, OPH, DEQ, DNR OC, DNR OMR, DWF, NRCS and LDAF to serve to facilitate communication between agencies during emergencies involving groundwater resources



# Enforcement

- Tier 1
  - The OC forms should include signature and certification by the responsible party. This procedure is consistent with legal certification language used by other local, state and federal governing agencies for related matters



# Incentives

- Tier 1
  - DNR should develop and implement a groundwater conservation stewardship recognition plan
- Tier 2
  - Legislation could be enacted to provide the appropriate water authority(s) the ability to pursue Public Private Partnerships to fund water infrastructure projects
  - Financial Incentive Recommendations:
    - Trust fund for water use fees to subsidize surface water use
    - Cost-share funds to facilitate the development of reuse
    - Credit system for alternative users
    - Provide incentives / tax reductions to encourage surface use
    - Provide incentives to retain forests and agriculture to benefit watersheds



# Collaboration

- Tier 1
  - Additional efforts may be initiated to locate and implement reservoirs in strategic locations
- Tier 2
  - Discussion should continue towards establishing aquifer based regions, similar to those in Georgia, to function within the state-wide framework
  - The Sparta Groundwater Commission may consider meeting with their legislators to propose draft legislation to amend the authority of the SGC to function in an identical capacity as the CAGCD
  - New legislation to extend and build upon the current provisions of Act 955 of 2010 and recognize the interconnectivity of ground and surface water resources
  - The GWRC and OC update and revise the role of the GWMATF and provide recommendations for new legislation



# Monitoring

- Tier 1

- The GWMATF should study and identify the:
  - Type and frequency of modeling suggested per area
  - Initial and annual maintenance cost to implement suggested modeling projects per area
  - Sustainable funding sources for each project
  - All feasible resource management alternatives for each area identified and report to GWRC
- DNR through OMR in conjunction with USGS should investigate current state practices for measuring surface water quantity and report its findings with any practical recommendations for improvement to the GWRC and COC



# Monitoring (cont.)

- Tier 1

- Current static water level gradient maps need to be maintained as feasible to accurately identify potential impacts caused by new significant drawdown within an aquifer and could be integrated into the SONRIS GIS system either as a functional or reference layer

- Tier 2

- Louisiana should develop a program to fund the development of aquifer-wide GAMs for the currently designated areas of interest or concern in the Sparta, Carrizo-Wilcox and Upland Terrace aquifers
- The GWRC should consider a resolution recommending the La legislature change the law to require all industrial, irrigation and public supply wells located in impacted aquifer systems to install flow monitoring devices and record and report groundwater withdrawals on a quarterly basis



# Auditing

- Tier 2
  - A unique identifier containing parish and a sequential well number for the parish using Federal Information Processing Standards should be maintained for each well from well notification through plugging and abandonment
  - The GWRC should request the legislature to amend current law for large volume industrial, irrigation and public supply wells located at least in impacted aquifer systems to
    - Require flow measuring devices on said wells
    - Record groundwater withdrawal volumes
    - Report volumes to the agency on a quarterly basis



# Conclusion & Retrospective Overview

## GW Management Plan Development

Foremost and Fundamental Aspect Remains the

- Timely and Continuous Delivery of Data for Statewide
  - Aquifer Water Levels
  - Ground Water Production
  - Water Quality



# Public Comments

