

LOUISIANA WATER RESOURCES COMMISSION

Tuesday, December 3rd, 2013
Hon. Scott Angelle, Chairman

1

1. Roll Call

2. Adoption of Meeting Summary from June 5th, 2013

John Adams, Office of Conservation

3. Review of Fall 2013 Workshop, Comments, and Revised Scope of Services

Matthew Reonas, Office of Conservation

Review of Fall 2013 Workshop

2

- Approximately 80 people in attendance
- Posted combined comments, workshop summary, and relevant documents on-line; forwarded link to 700+ “interested parties” on WRC distribution list
- 2-week comment period through Nov. 4 (approx. half-dozen additional comments taken)
- Strong consensus for an inventory of available data, demand, and available water resources
- Strong interest in understanding individual regional/watershed issues
- Strong interest in expanded review of legal/management matrix
- Needed to include focus on environmental, wildlife conservation as well
- Revised proposed draft scope of services accordingly

Revised Draft Scope of Services

3

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

Draft 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 that provides for water resource stewardship and for sustainable supplies for all uses. 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~~ illustrated by 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, environmental and wildlife conservation, and coastal restoration and protection.

The broad concepts and specific issues inherent in such a design strategy were discussed in a LWRC workshop held in Baton Rouge on October 17, 2013. The Office of Conservation took further public comments on the subject through November 4, 2013. Below is a revised scope of services that includes suggested changes as offered through these forums

Emphasizing
stewardship and
sustainability

Included
environmental
and wildlife
conservation as
major goal

Recap of workshop

Revised Draft Scope of Services

4

Draft Scope of Services

Phase I – Assessment of ~~Louisiana’s Water Budget Planning Tools, Water Resource Demand, and Water Resource Availability in Louisiana~~

1. Identify sources of water quality and quantity information, and any gaps in data that may have a substantial impact on planning. Provide recommendations on how to account or project for the absence of such data, or otherwise remedy such deficiencies.
- 1.2. Utilizing all available, relevant, sound, and objective resources, Eestablish a firm understanding of the current and projected water demands in the state for all uses (as listed above), including coastal restoration, by region and watershed.
 - 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 coastal restoration demands on the allocation of the state’s water resources for all current and projected uses, including for economic development or navigation needs, and for sustaining ecological systems.

Cut “Water Budget,” revised language on planning, demand, and availability

Included inventory of available and/or missing data

Included focus on region and/or watershed for evaluating demand

Econ. development, navigation, ecological sustainability language

Revised Draft Scope of Services

5

2.3. 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, and will build upon work previously conducted by Fenstermaker and others.

a. Evaluate current sustainability challenges in Louisiana and the impact of, as well as current and projected demands for water usage upon them. ~~by stakeholder groups (industry, agriculture, power generation, public supply, etc.) by building upon work previously conducted by Fenstermaker and others.~~

b. Provide projections on undersupply and/or oversupply of water resources by region and watershed based upon sustainability issues and current and projected demand.

c. Evaluate the impact of future economic growth and potential emergency situations, such as droughts or floods of a historic or established tendency in Louisiana, on water resource availability and sustainability of use by region and watershed.

b.d. Assess competing demands for water usage in Louisiana and provide recommendations for long-term solutions both within the state's existing legal framework and with any suggested alterations to this framework based upon sound science and recognized, widely accepted management practice.

e.e. Assess the availability of Louisiana's shared water resources with other states and ~~Provide~~ specific definitions of Louisiana's rights to such shared water resources (lakes, bayous, rivers, etc.) ~~with other states, along with and~~ recommendations on articulating and protecting these rights.

Re-focused language on sustainability issues and impacts of demand

Added additional focus on supply by region and/or watershed

Added additional focus on planning for economic growth and emergency situations

Additional review of Louisiana's legal and management framework

Availability of shared water resources with other states

Revised Draft Scope of Services

6

Phase II – Planning and Allocation

1. Provide recommendations on developing a ~~strategic interface-flexible prioritization or budgeting program that will ensure resource sustainability and meets the needs for safe drinking water, coastal restoration, environmental and wildlife conservation, between ground and surface water usage priorities and the needs of~~ reservoir and port development, flood protection, and economic growth. ~~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, incentive programs, public/private partnerships, ~~economic incentives,~~ tax levies, and other options.

Cut “strategic interface,” revised language to focus on developing a “flexible prioritization or budgeting program”

LOUISIANA WATER RESOURCES COMMISSION

Tuesday, Dec. 3rd, 2013
Hon. Scott Angelle, Chairman

7

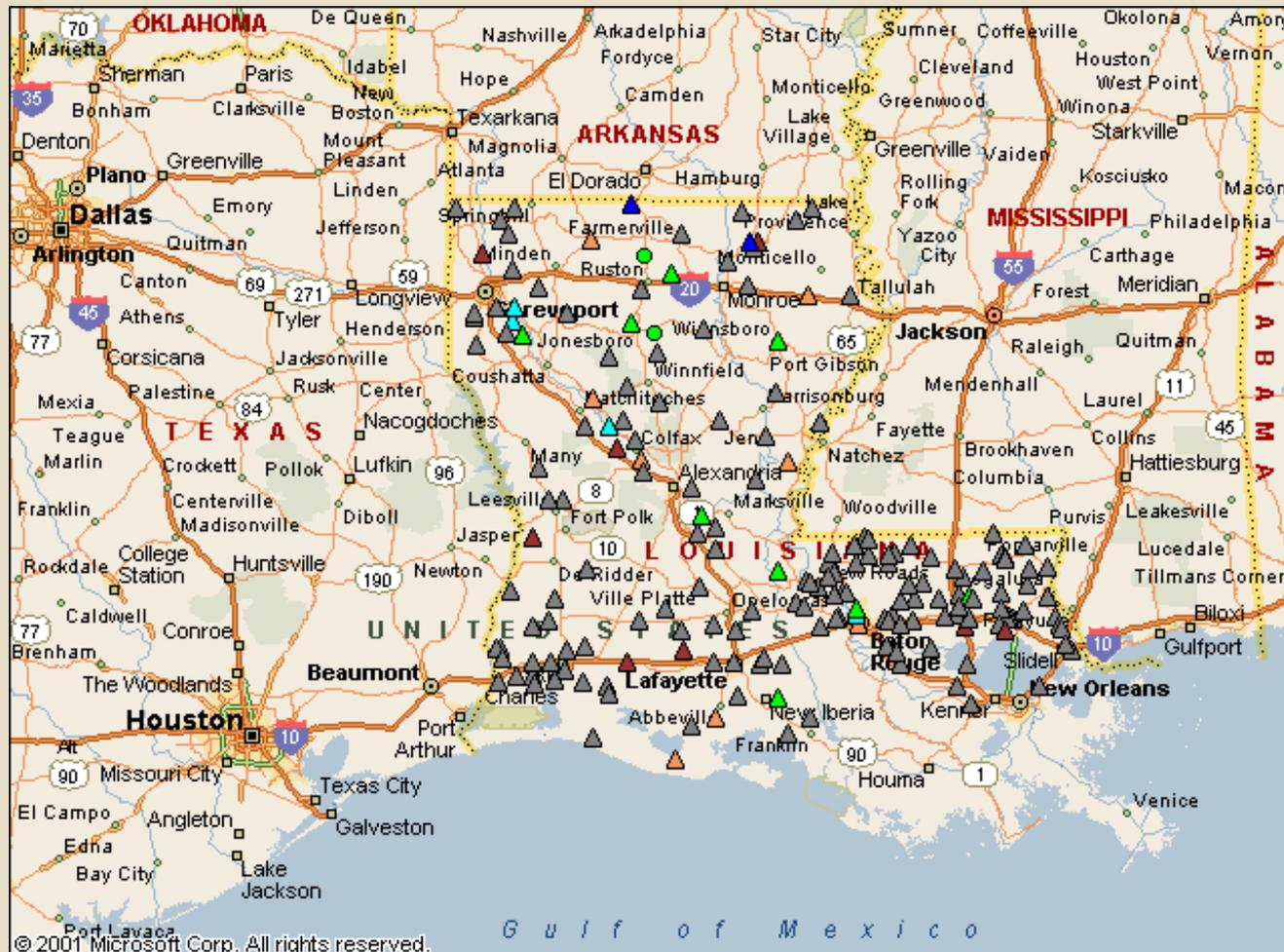
4. Progress Report on 2012 Recommendations *Matthew Reonas, Office of Conservation*

Progress Report, Inadequate Monitoring Network

- Water-level data available at:
<http://nwis.waterdata.usgs.gov/la/nwis/gwlevels>
- Chloride and other water-quality data available at:
<http://nwis.waterdata.usgs.gov/la/nwis/qwdata>
- 2012 state water use data by use, parish, aquifer, and surface-water basin available at: <http://la.water.usgs.gov/WaterUse/default.asp>
- LDNR Groundwater Level Network well data available at:
<http://groundwaterwatch.usgs.gov/LNR/StateMaps/LNR.html>

Progress Report, Inadequate Monitoring Network

9

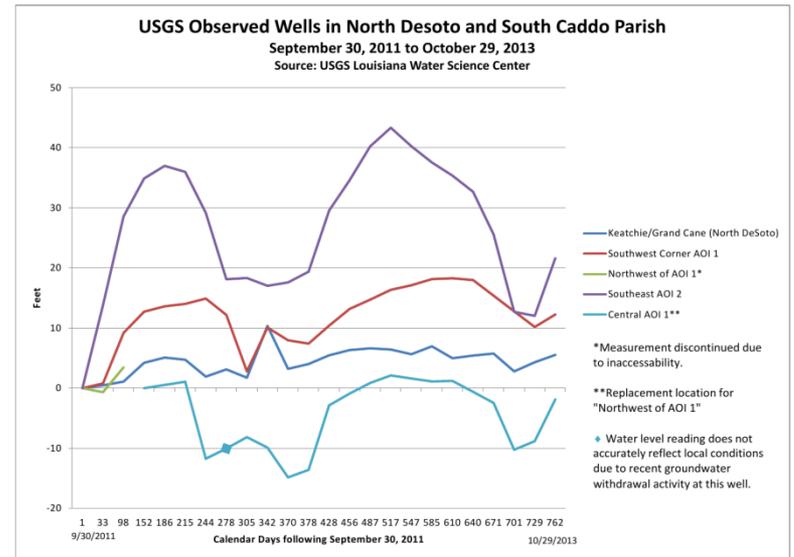
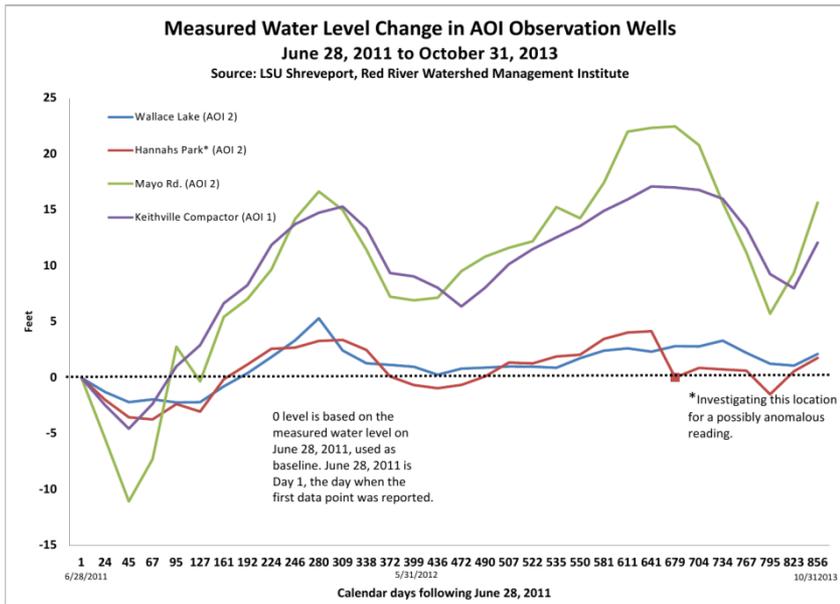


Education

10

- **Baton Rouge Area**
 - Continuing to work with Baton Rouge Area Foundation on education about local water resources and management in EBR
 - Updating and expanding “Water-Wise in BR” campaign in spring through additional funding secured through Dept. of Environmental Quality’s Beneficial Environmental Project program
- **Statewide**
 - Developing science teacher survey; investigating sources of funding, including NSF grants, and partnerships aimed at a statewide curriculum
 - North Louisiana – discussion with Sparta Commission on curriculum development for middle school and high school
 - Conserve Caddo! effort still in place; seeking to raise additional funding

Progress Report, South Caddo Outreach



Progress Report, South Caddo Outreach

12

- Mail-out to 4500 homes
- Media outreach
- Revamped website
- Emphasis on education about the resource



Ground Water Resources Program
P.O. Box 94275
Baton Rouge, LA 70804-9275

THIS IS AN OFFICIAL NOTICE REGARDING THE GROUND WATER EMERGENCY STILL IN EFFECT FOR AREAS OF SOUTH CADDO PARISH.

PLEASE READ IMMEDIATELY!

DO NOT DISCARD!

<http://dnr.la.gov/southcaddo>

PRESORT STANDARD
U.S. POSTAGE
PAID
Permit No. 936
Baton Rouge, LA

WHEN WAS THE ORDER ISSUED?

In August 2011, La. Commissioner of Conservation Jim Welsh, acting under his authority to protect the state's groundwater resources, declared a **Temporary Ground Water Emergency** in two Areas of Interest in south Caddo Parish. The first is around *Keithville*. The second is in the *South Shreveport-Ellerbe Rd.* vicinity.

WHY WAS THE ORDER NECESSARY?

– The exceptional drought of 2010-11 in northwest Louisiana placed extreme stress on local groundwater resources.

– South Caddo Parish relies extensively on groundwater for home-use and drinking water needs.

– The main source for this groundwater is the Carrizo-Wilcox aquifer and to a lesser extent the Upland Terrace and Red River aquifers.

– The Carrizo-Wilcox is a low-yield, limited resource.

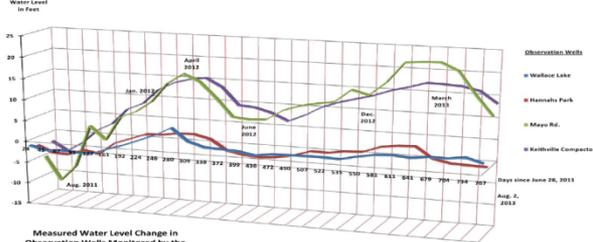
After local wells began to run dry in summer 2011, the Office of Conservation determined that the Ground Water Emergency Order was, and still is, necessary to:

- 1) *Protect local drinking water supplies for communities in south Caddo Parish, and*
- 2) *Protect the Carrizo-Wilcox and Upland Terrace aquifers from potential damage.*

<http://dnr.la.gov/southcaddo>

WHAT SCIENCE TELLS US

The Office of Conservation is working with the LSU-Shreveport Red River Watershed Management Institute and U.S. Geological Survey to monitor water levels in local aquifers. This graph shows water level measurements in several local wells from June 2011 to Aug. 2013. Note the seasonal fluctuations. Hotter, drier months in the summer lead to increased water demand and consequent declines in water levels; these levels tend to rebound in the cooler, wetter months of winter and spring, when demand is lower. There has been recovery, just not to a long-term, sustainable level.



Measured Water Level Change in Observation Wells Monitored by the LSU-Shreveport Red River Watershed Management Institute.

August 7, 2013

<http://dnr.la.gov/southcaddo>

WHO IS AFFECTED BY THE ORDER?

– All residents within the above Areas of Interest who use groundwater drawn from the Carrizo-Wilcox and Upland Terrace aquifers, either through domestic wells or community/public supply wells.

– For detailed maps and descriptions of the Areas of Interest, along with a list of local public supply systems, see <http://dnr.la.gov/southcaddo>.

– Residents utilizing City of Shreveport water service are not subject to this Order's usage restrictions. Wells in the Red River Alluvial aquifer likewise are exempt from restrictions associated with this Order.

WHAT DOES THE ORDER REQUIRE?

The Emergency Order requires all persons in the designated Areas of Interest to reduce to the "maximum extent possible" the use of groundwater drawn from the Carrizo-Wilcox and Upland Terrace aquifers. Specifically, the Order mandates:

- 1) *Use of sound water conservation practices. For a full list of recommended conservation measures, see <http://dnr.la.gov/southcaddo>.*
- 2) *No watering of residential lawns or golf fairways; home gardens excepted.*
- 3) *No washing of vehicles or equipment beyond that absolutely necessary to achieve proper operation and maintenance.*
- 4) *No filling of ponds for non-practical or aesthetic use (for decoration or design); agricultural and irrigation purposes excepted.*
- 5) *No filling of swimming pools beyond what is absolutely necessary for proper maintenance.*
- 6) *Elimination of groundwater usage from any industrial wells for all reasons other than human consumption.*

<http://dnr.la.gov/southcaddo>

WHEN WILL THE ORDER BE LIFTED?

The threshold for lifting or even relaxing the Emergency Order is high; there must be conclusive scientific evidence that water levels in local aquifers have improved to a sustainable level. While current data points to a limited recovery since summer 2011, at present there is not sufficient enough evidence to demonstrate long-term sustainability.

In particular, because local aquifers rely heavily on rainfall for recharge, drought is a major concern. As of the issuance of this advisory, Caddo Parish is classified as being in "severe drought" according to the U.S. Drought Monitor (<http://droughtmonitor.unl.edu/>).

Louisiana has experienced two serious droughts in the last 15 years (1999-2000 and 2010-11). Predicting the return and extent of such extreme weather conditions is difficult at best, but the impact on local groundwater resources is well-documented.

Updates on the emergency are posted every six to eight weeks on-line at <http://dnr.la.gov/southcaddo>. Please register at the website to join our email list, or write to our return address (Attn: South Caddo) for more information.

Progress Report, Management of Saltwater Encroachment – Baton Rouge

13

- Completion of USGS models for 1,500- and 2,000-foot sands, for Capital Area Groundwater Conservation Commission (CAGWCC)
- CAGWCC secured additional funding for modeling of other sands over next 10 years
- Installation underway of Baton Rouge Water Company “scavenger well”
- Office of Conservation continues to monitor management; encouraged by recent efforts but has asked CAGWCC to institute an aggressive timetable to ensure long-term sustainability

Progress Report, HCR No. 150

14

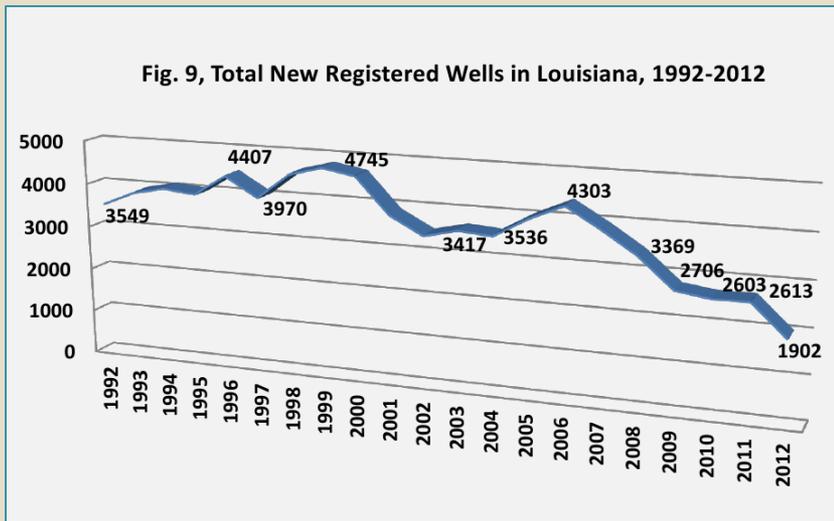
- Asked DNR/Office of Conservation, ***in consultation with the Water Resources Commission***, to “study, report, and make recommendations on the availability of qualified water well drillers, water well driller licensing requirements, and their impact on the rates charged for drilling of water wells.”
- Provided updates on research and findings to Advisory Committee for the Regulation and Control of Water Well Drillers at regular meetings, Aug. 14 and Nov. 13, 2013
- Forwarded a draft version of report to WRC members for consideration on Nov. 22; deadline for comments, Dec. 2
- Due on or before Feb. 15, 2014

Progress Report, HCR No. 150

15

- **Key Findings**

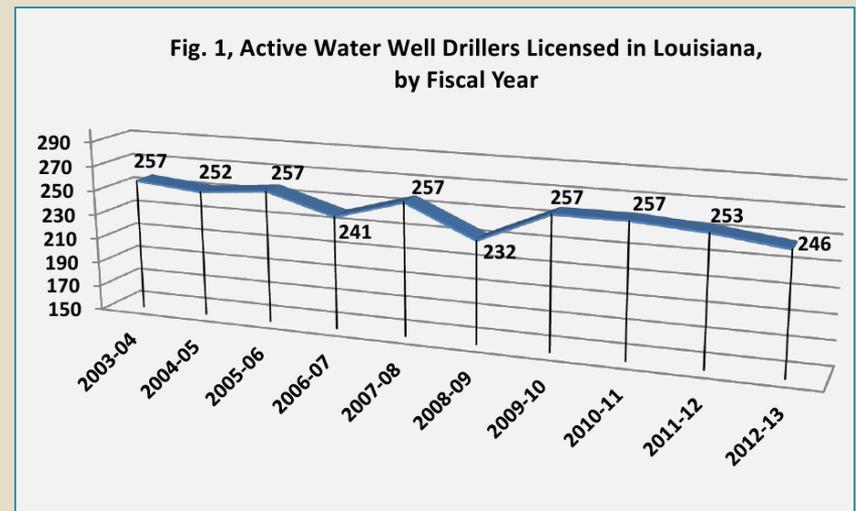
- Number of water wells registered has declined by over 50% since 2006



- Bulk of decline in domestic wells; demand for other types of water

wells relatively constant with temporary above average demand in some years

- Number of licensed water well drillers had remained relatively constant over the past decade



LOUISIANA WATER RESOURCES COMMISSION

Tuesday, December 3rd, 2013
Hon. Scott Angelle, Chairman

16

5. New Water System Requirements

Jake Causey, Department of Health and Hospitals

6. Public Comments

7. Adjournment