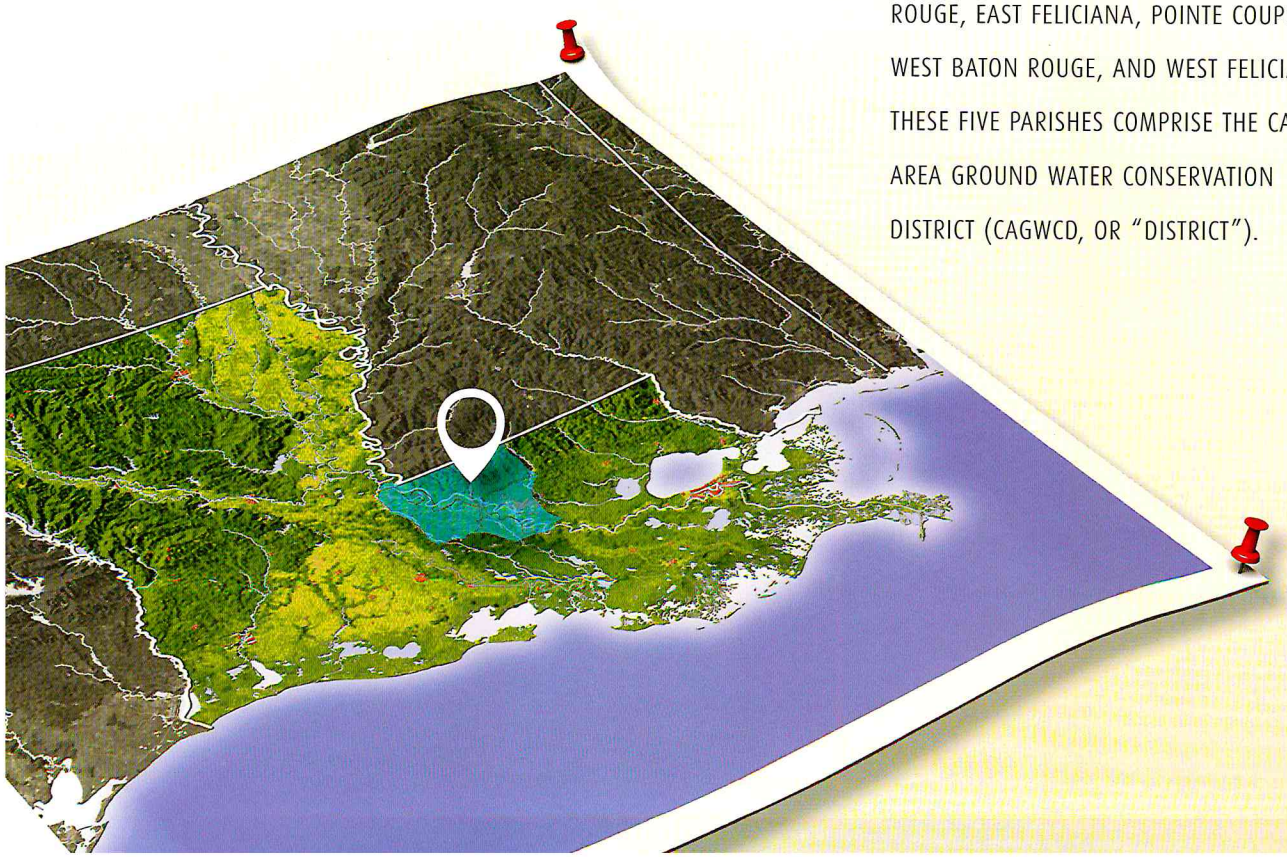
CAPITAL AREA GROUND WATER CONSERVATION COMMISSION

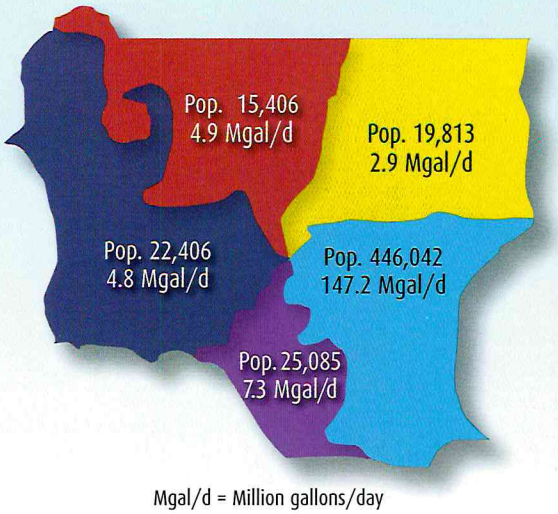
THE CAPITAL AREA GROUND WATER CONSERVATION COMMISSION (CAGWCC) IS A REGIONAL PERMITTING AUTHORITY CREATED BY THE LOUISIANA LEGISLATURE TO PROVIDE FOR THE EFFICIENT ADMINISTRATION, CONSERVATION, ORDERLY DEVELOPMENT, AND SUPPLEMENTATION OF GROUNDWATER RESOURCES IN THE PARISHES OF EAST BATON ROUGE, EAST FELICIANA, POINTE COUPEE, WEST BATON ROUGE, AND WEST FELICIANA. THESE FIVE PARISHES COMPRISE THE CAPITAL AREA GROUND WATER CONSERVATION DISTRICT (CAGWCD, OR "DISTRICT").



Why does our region need a groundwater conservation commission?

The demands of a large population and a diverse economic base require careful stewardship of our groundwater resources to provide for long-term sustainability.

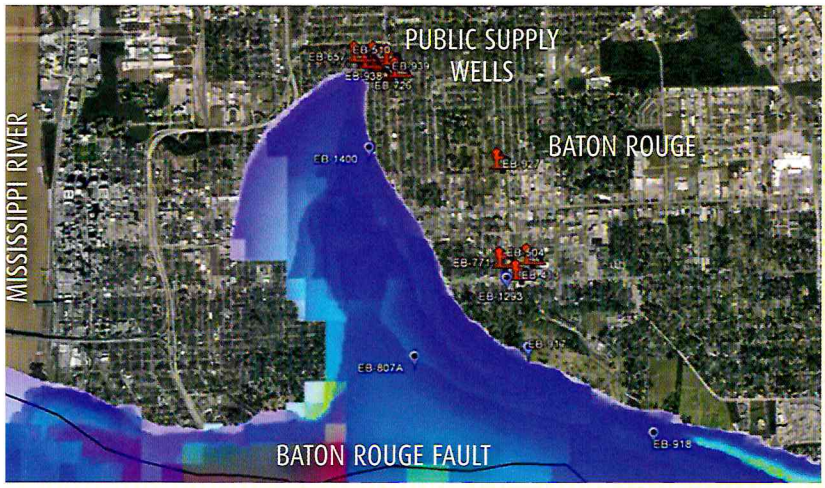
More than a ***half-million people*** live in the five parishes of the CAGWCD. Every one of these residents utilizes high-quality groundwater in their daily routines for bathing, cooking, and cleaning. Small businesses like restaurants, laundromats, car washes, and grocery stores (to give but a few examples) make use of this same resource, as do large industrial and manufacturing facilities, and even farmers and ranchers in the rural areas of the District. Groundwater from local aquifers is plentiful but the demand is strong.

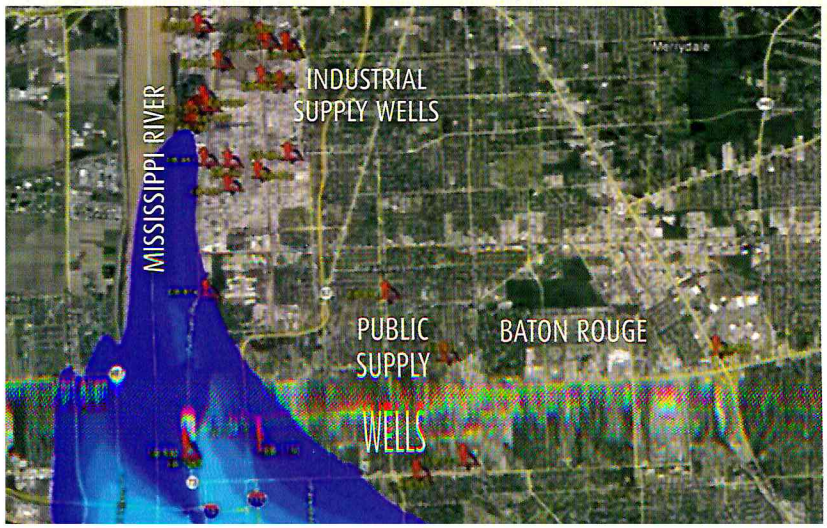


Mgal/d = Million gallons/day

2014 Populations and Regulated Groundwater Pumpage

- East Baton Rouge
- West Baton Rouge
- East Feliciana
- West Feliciana
- Pointe Coupee





SALTWATER ENCROACHMENT IS A SERIOUS CHALLENGE THAT MUST CONTINUE TO BE MANAGED

Over many decades, concentrated groundwater withdrawals from the local aquifers at Baton Rouge have caused saltwater to cross the Baton Rouge Fault and move into the area's freshwater "sands." This saltwater encroachment threatens the continued sustainable use of local groundwater resources in a limited zone close to the fault. The continued effective management of this issue requires broad coordination among the major users of the aquifer system. These users, along with local governments and state agencies, are represented on the CAGWCC.

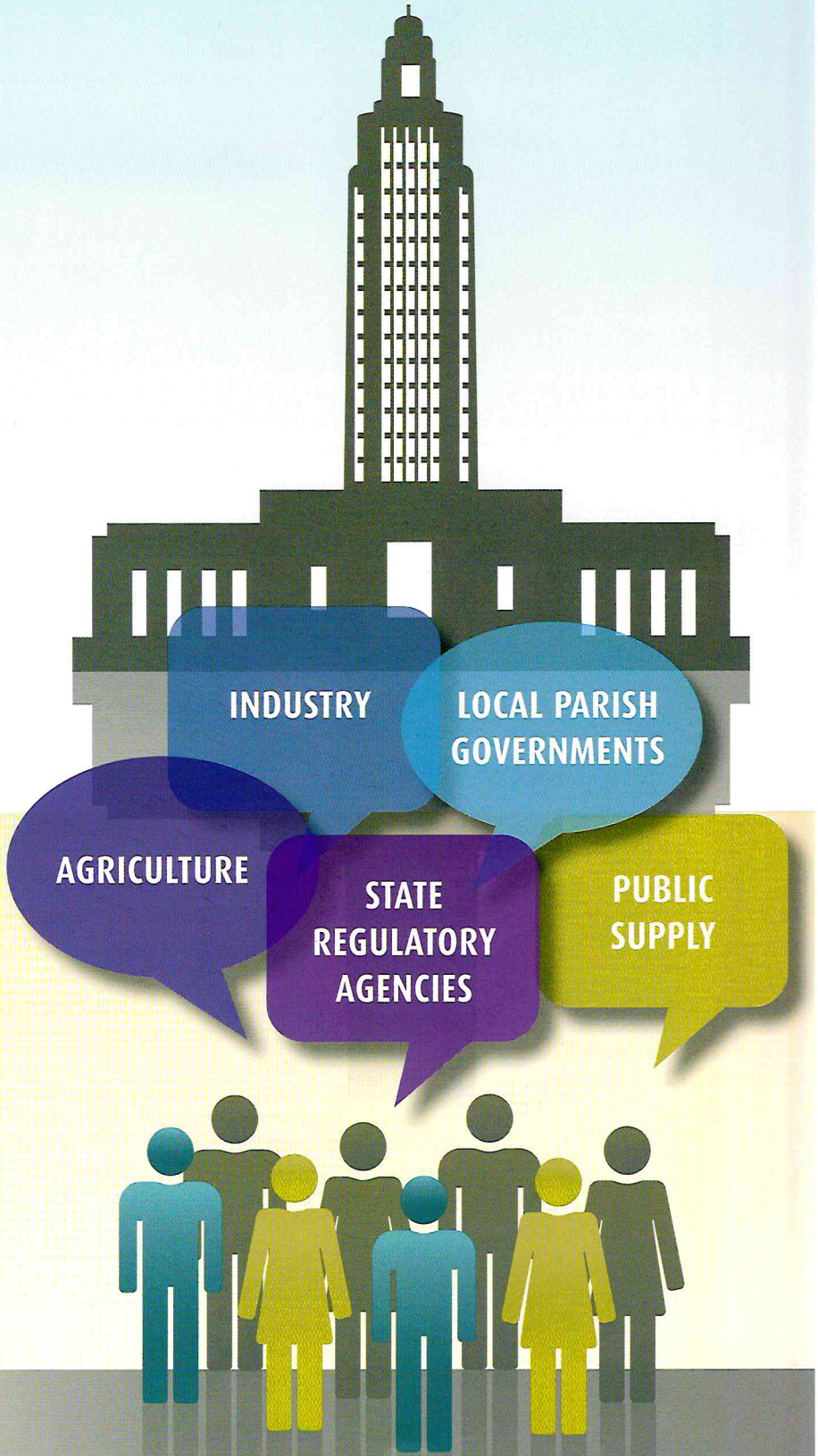
TOP LEFT: Projected saltwater encroachment in the 1500-foot sand below Baton Rouge, 2010. Adapted from LSU models.

BOTTOM LEFT: Projected saltwater encroachment in the 2000-foot sand below Baton Rouge, 2010. Adapted from LSU models.

The Baton Rouge fault has served as an incomplete barrier to naturally occurring saltwater to the south. Groundwater with low or trace chloride concentrations (in lighter and darker blue) remains of very good quality; stronger concentrations (in red) are found nearer the fault.

Who created the CAGWCC and what does it do?

The CAGWCC was created by the Legislature in 1974 due to concerns about steep water level declines and saltwater encroachment inside local aquifers, along with potential land subsidence. Its job is to develop, promote, and implement management strategies to provide for the conservation, protection, and sustainable use of local groundwater resources in the District.



WHAT WE DO

To effectively manage local groundwater resources and prevent or limit saltwater encroachment and land subsidence, the CAGWCC has the authority to:

- **Conduct scientific investigations and research**
- **Collect data and make inspections**
- **Set groundwater use priorities and production limits**
- **Acquire property and undertake special projects**
- **Permit large-volume water wells producing greater than 50,000 gallons a day**
- **Assess a uniform groundwater use fee on permitted users**

Groundwater use permits are issued or denied, after review, to individuals or corporate entities wishing to install a water well, or set of wells, that pumps more than 50,000 gallons of groundwater on any day during a calendar year. Currently, there are 59 permitted users within the District. These include public supply providers (parish and municipal utilities), industrial facilities, state institutions, and private associations.

THE CAGWCC

The 16 members of the CAGWCC are appointed by the Governor and include individuals that represent local parish governments, state regulatory agencies like the Office of Conservation and the Department of Environmental Quality, and interested user groups (industry, public supply, and agriculture) in the District.

How does the CAGWCC manage groundwater resources in the District?

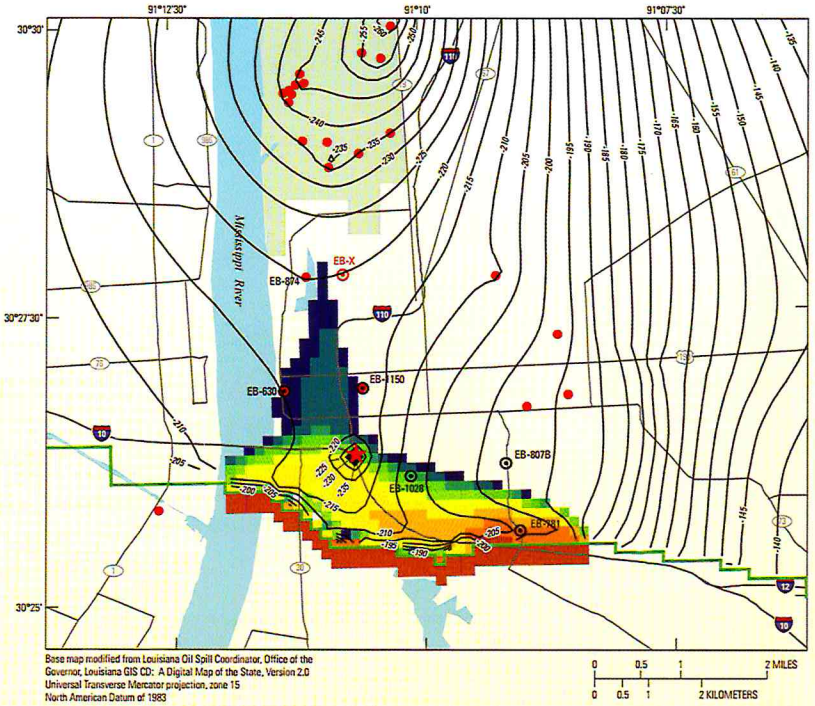
The CAGWCC has embraced a management philosophy based on utilizing the best available science to halt saltwater encroachment while ensuring the continued, sustainable use of local groundwater resources into the future.

To date, the CAGWCC has implemented a variety of management solutions to meet its stated goals of conserving our groundwater resources and limiting saltwater encroachment, including:

- **Maintenance of an extensive observation/monitor well network to collect the best data possible**
- **Introduction of groundwater withdrawal limitations in challenged aquifers**
- **Installation of a "connector" well to allow freshwater recharge for the 1500-foot sand**
- **Permitted the installation of a saltwater "scavenger" well for the 1500-foot sand**
- **Funded detailed studies of local groundwater hydrology and mitigation options**
- **Partnered with LSU and the Board of Regents on aquifer architecture models**
- **Engaged the U.S. Geological Survey (USGS) in a 10-year modeling program of the entire aquifer system at Baton Rouge**

THE USGS MODELS ARE CRITICAL TO THE ENTIRE MANAGEMENT PROCESS

Only when the hydraulics of groundwater in an aquifer and the potential for saltwater encroachment are modeled with proven scientific methods is the CAGWCC then able to evaluate the potential effectiveness and impacts of different management options, including pumping reductions, freshwater injection, saltwater removal south of the Baton Rouge fault, saltwater scavenging or interception, or various combinations of these and other actions. The entire project is scheduled for completion in 2021, although review of each aquifer model is evaluated upon completion.



ABOVE: One of several management scenario models for the 2000-foot sand completed for the CAGWCC by the USGS. This model shows predicted water levels and chloride concentrations in 2112 after implementation of various strategies, including a new scavenger well (red star). Chloride levels range from trace amounts (10 to 40 milligrams per liter, in dark and light blue) to more significant concentrations (641 to 1200 milligrams per liter, in yellow) south of the proposed scavenger well. Source: USGS Scientific Investigations Report 2015-5083, Version 1.1, September 2015.

USGS science for a changing world

SEE OUR MANAGEMENT PLAN ON-LINE AT **CAGWCC.COM**

CAPITAL AREA GROUND WATER CONSERVATION COMMISSION

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