

Presentation to

Louisiana Water Resources Commission

by

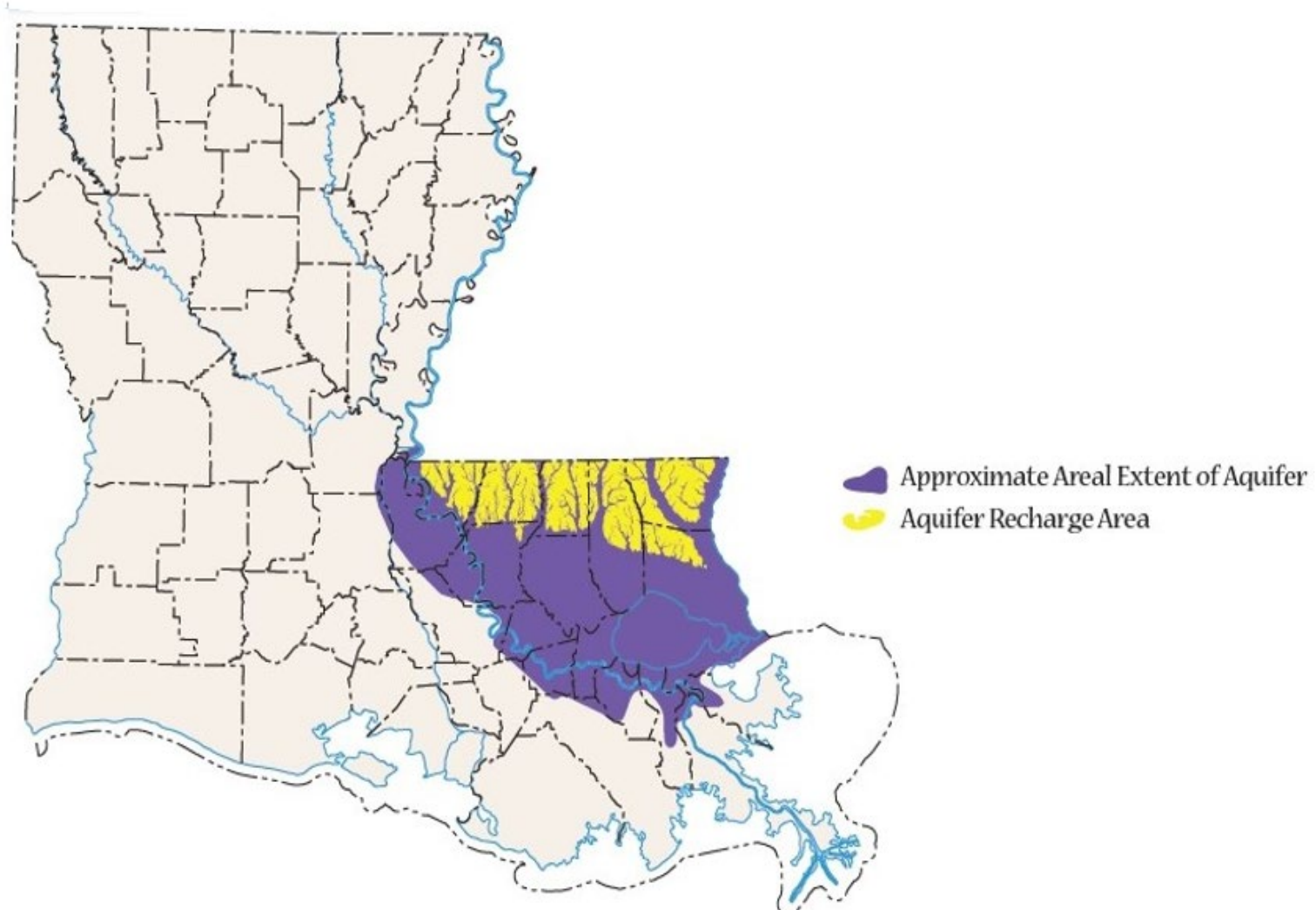
Gary J. Beard, PE
Executive Director

Capital Area Groundwater Conservation District

November 2023



Southern Hills Aquifer



Southern Hills Aquifer



Southern Hills Aquifer



The Capital Area Groundwater Conservation District is comprised of six parishes.





Time... 2,000 years ago ...



Time... 2,000 years ago ...

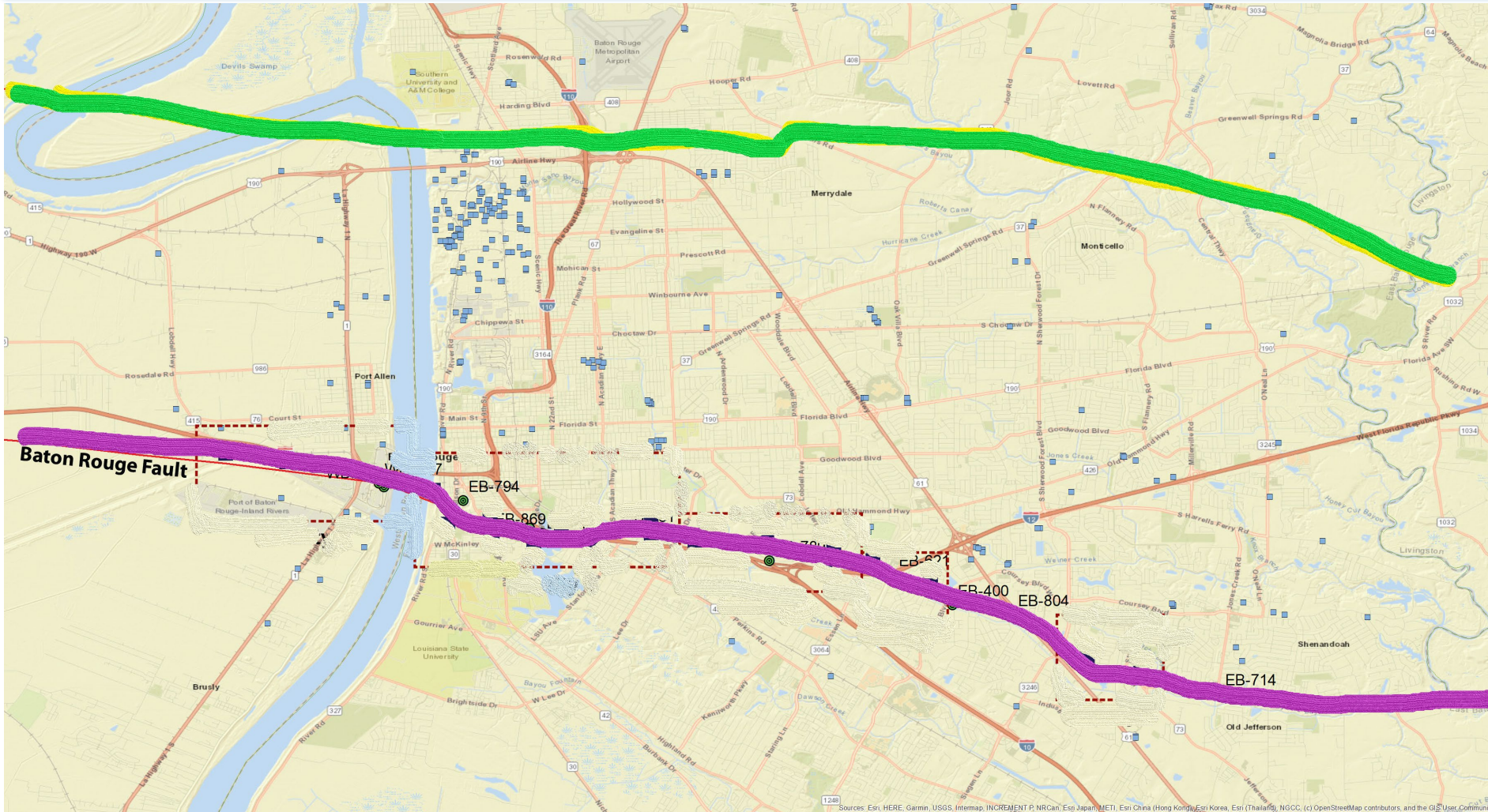


Time... 2,000 years ago ...

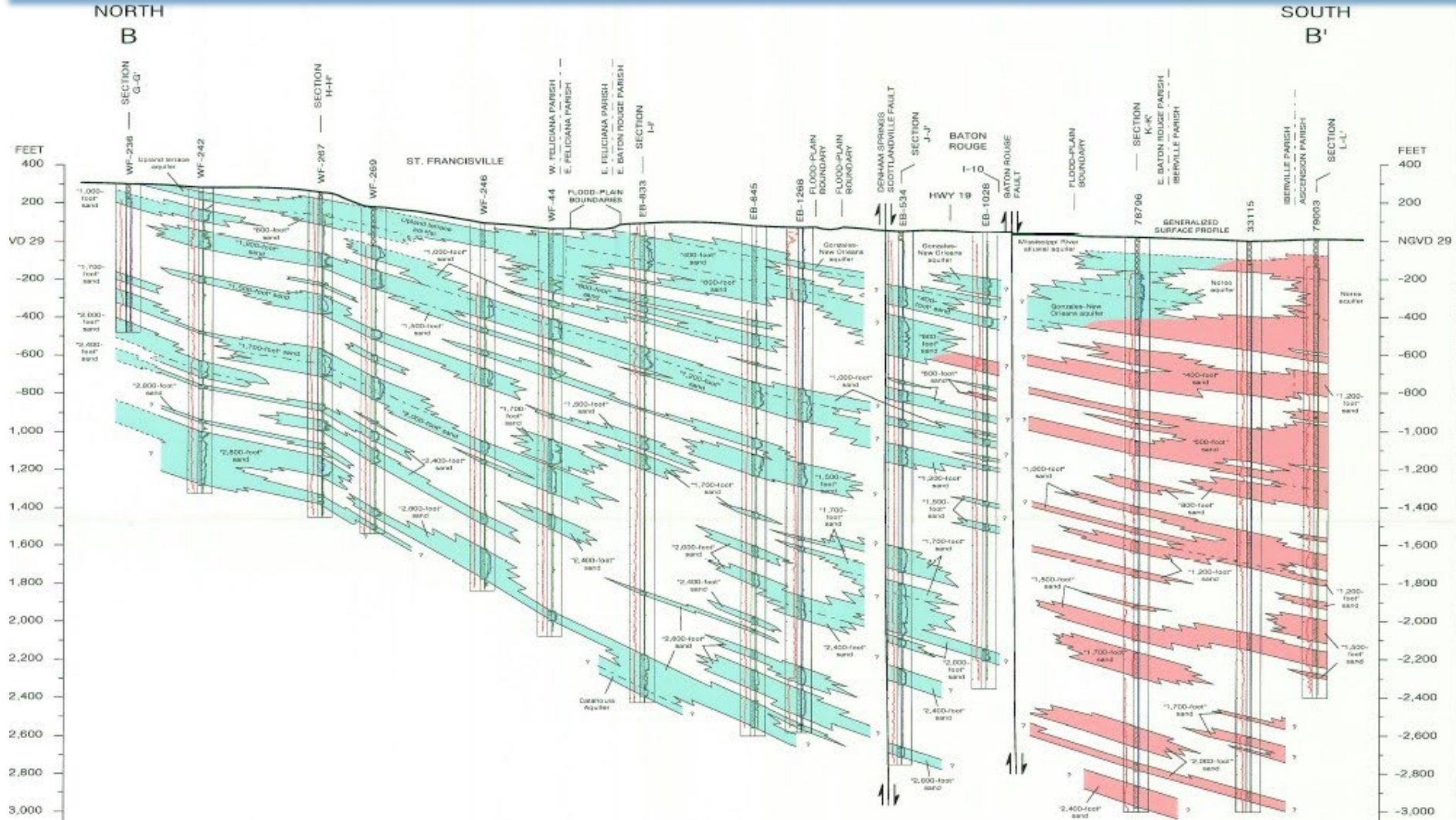




Southern Hills Aquifer



Southern Hills Aquifer

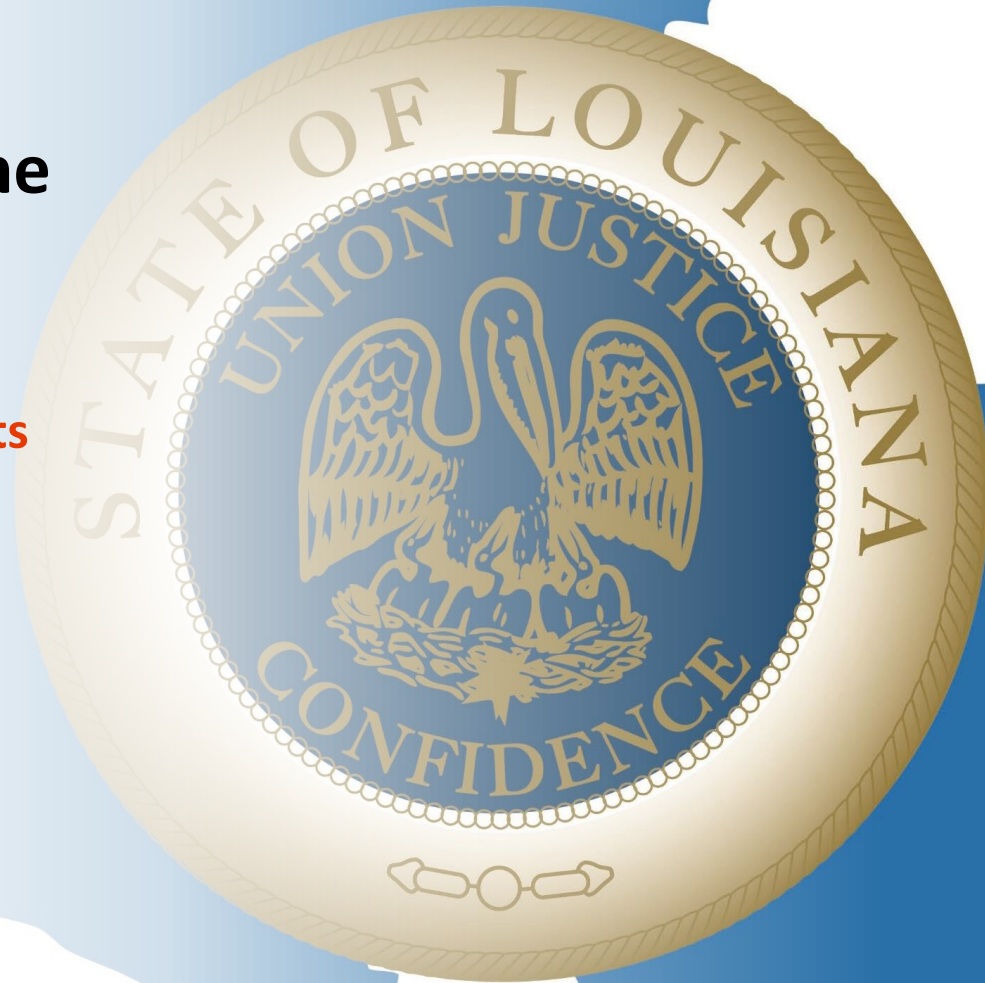




— District Goals

Sustainability & Preservation of the Southern Hills Aquifer

Continue Working with Engineers and Scientists



Engineering & Strategic Analysis



THE WATER INSTITUTE
OF THE GULF®

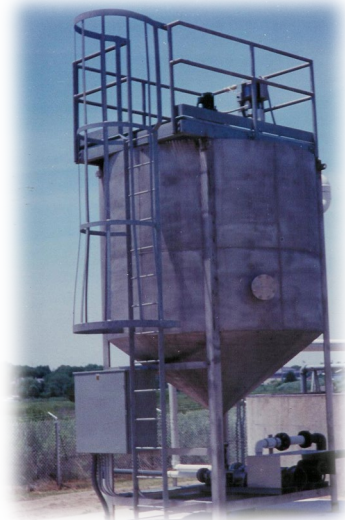


LSU
College of Engineering



- Extensive Groundwater Model
- Preliminary Engineering Alternatives with Strategic Plan
- Additional Constituent Testing

Engineering & Strategic Analysis



- Moving Production
- Connector Wells/
Pressure systems
- Reclaimed Water Facilities
- Aquifer Recharge

— District Goals

Sustainability & Preservation of the Southern Hills Aquifer

Continue Working with Engineers and Scientists

Implementation of Automated Metering and Well-Monitoring System



Independent Remote Metering

Groundwater model needs accurate, hourly data.

Louisiana Legislative Auditor 2019 report – “The Commission should consider using its authority in state law to require all wells regulated by the Commission to be metered for recording withdrawal amounts.”

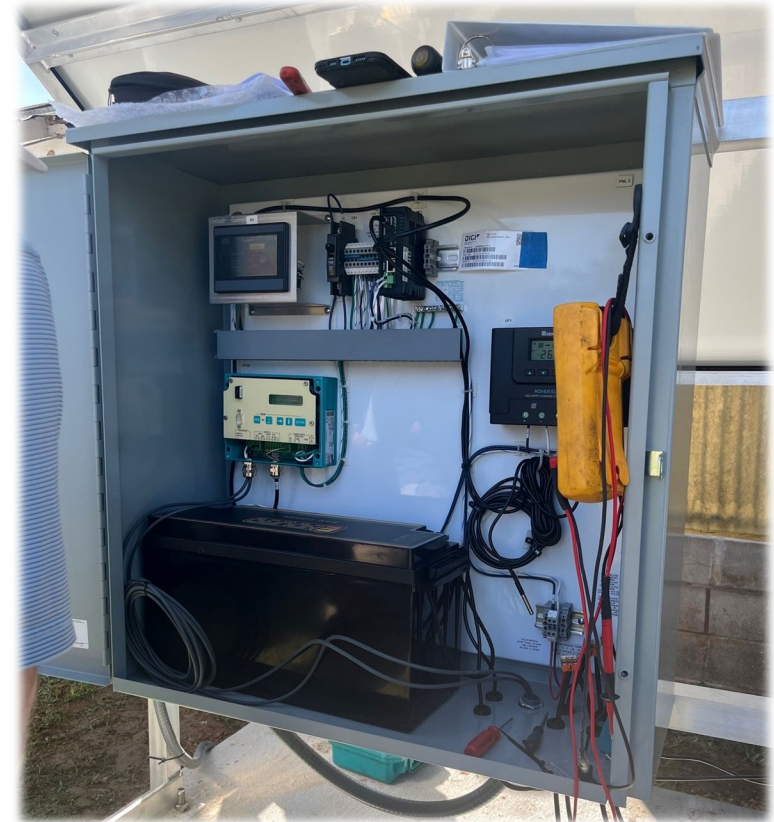


Independent Remote Metering



Eliminate the current method of “self-reporting” water usage.

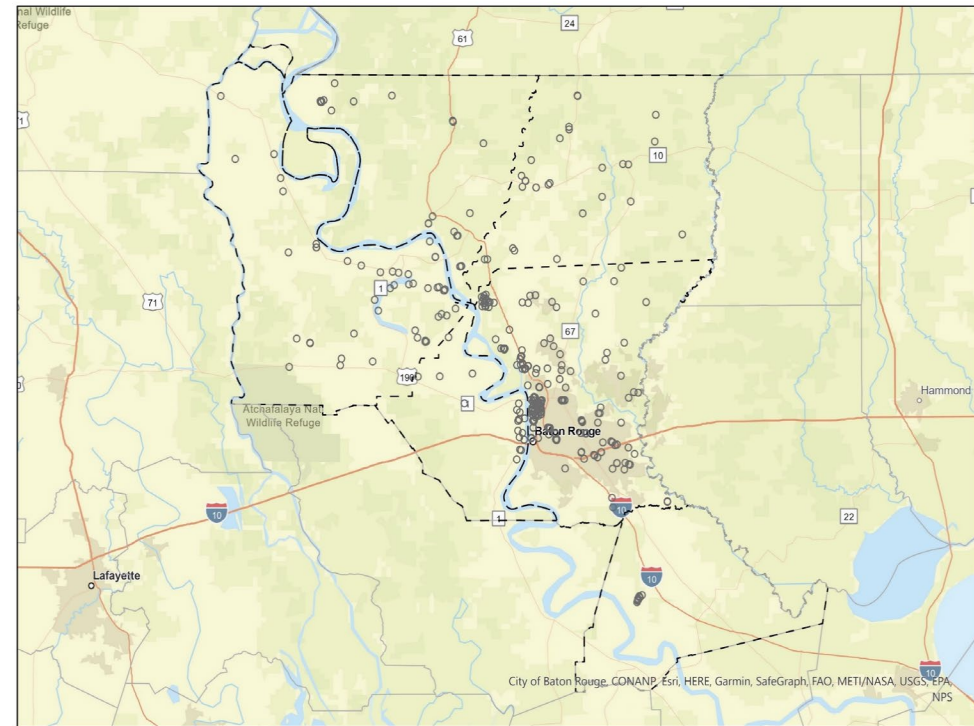
Currently, only a fraction of all wells in the District are accurately metered.



Independent Remote Metering



Install flow meters on 300 wells within the District and install 10 chloride monitors to track the saltwater plume in the aquifer.



0 10 20 Miles

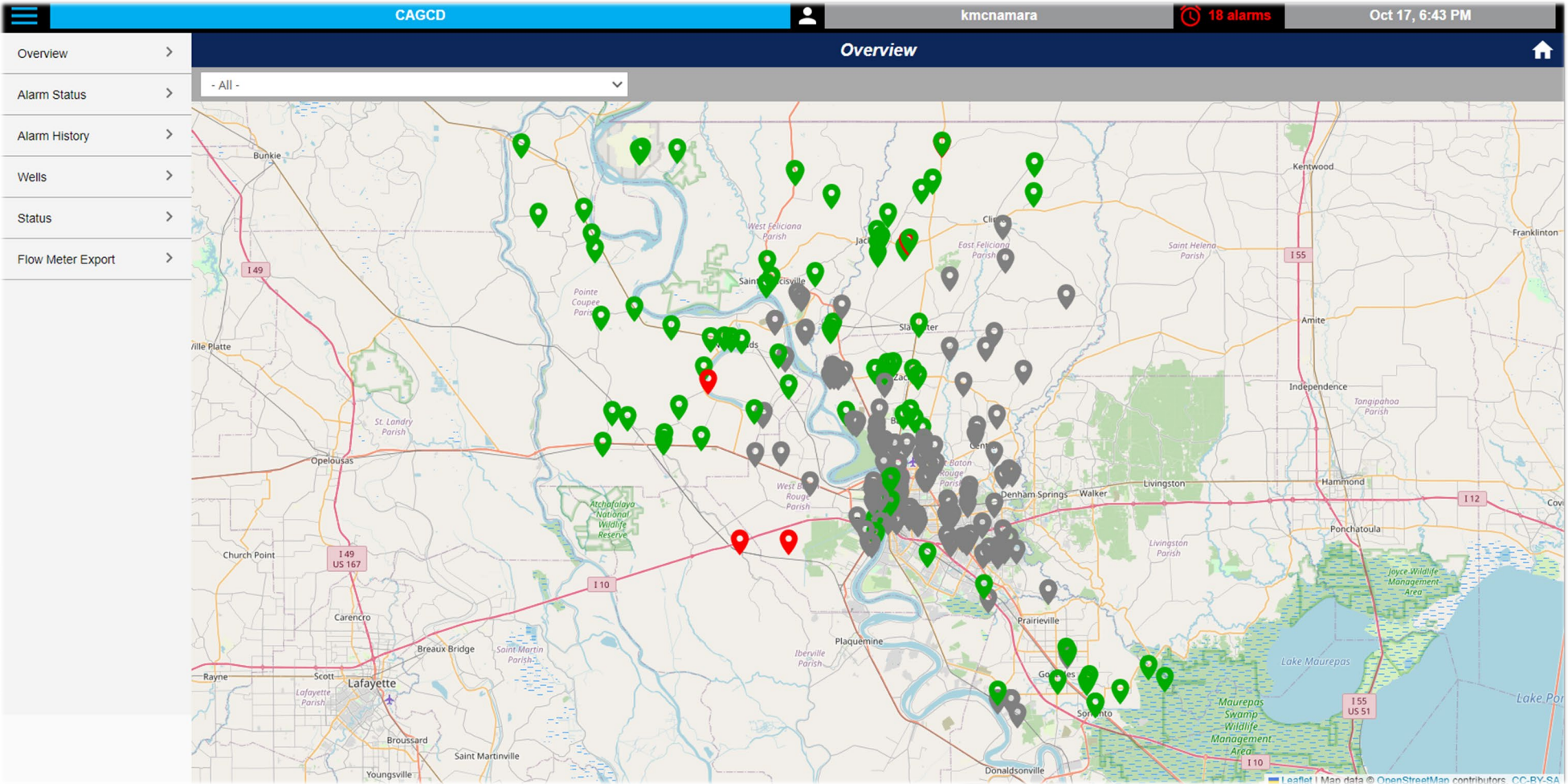
Independent Remote Metering



Independent Remote Metering



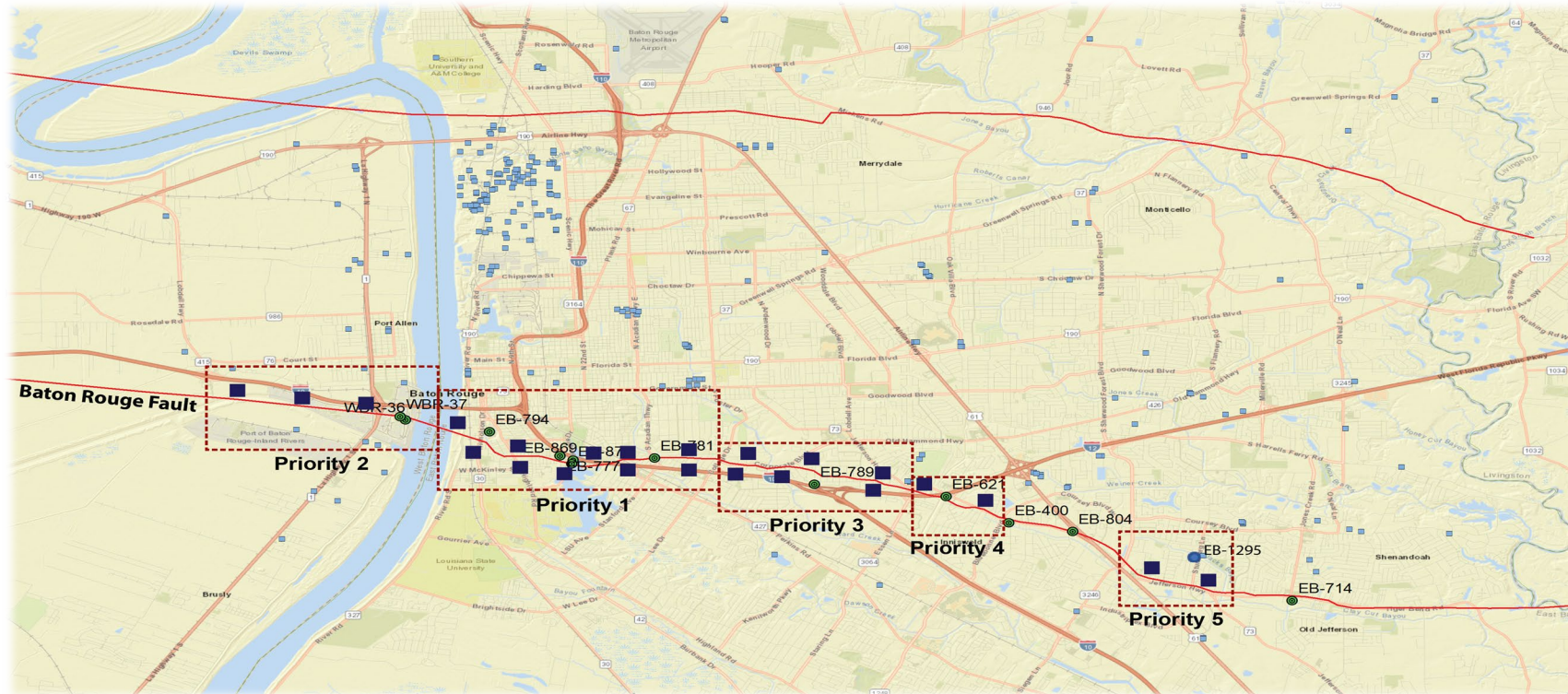
Metering & Monitoring System



Real-time monitoring with SCADA system

Monitoring Well Program

Install 23 monitoring wells along the Baton Rouge Fault



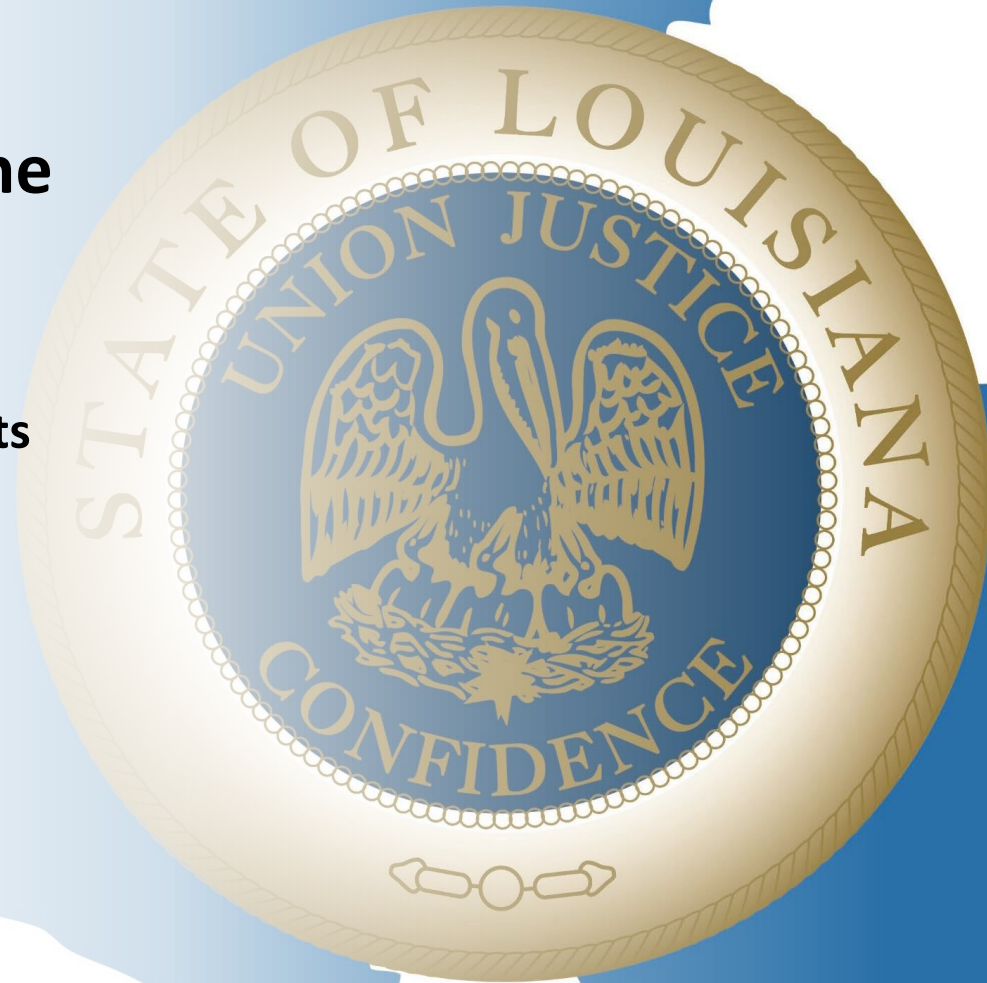
— District Goals

Sustainability & Preservation of the Southern Hills Aquifer

Continue Working with Engineers and Scientists

Implementation of Automated Metering and Well-Monitoring System

Maximize Additional Funding Sources



Funding Alternatives



- Additional Capital Outlay
- Seek Federal Assistance



— District Goals

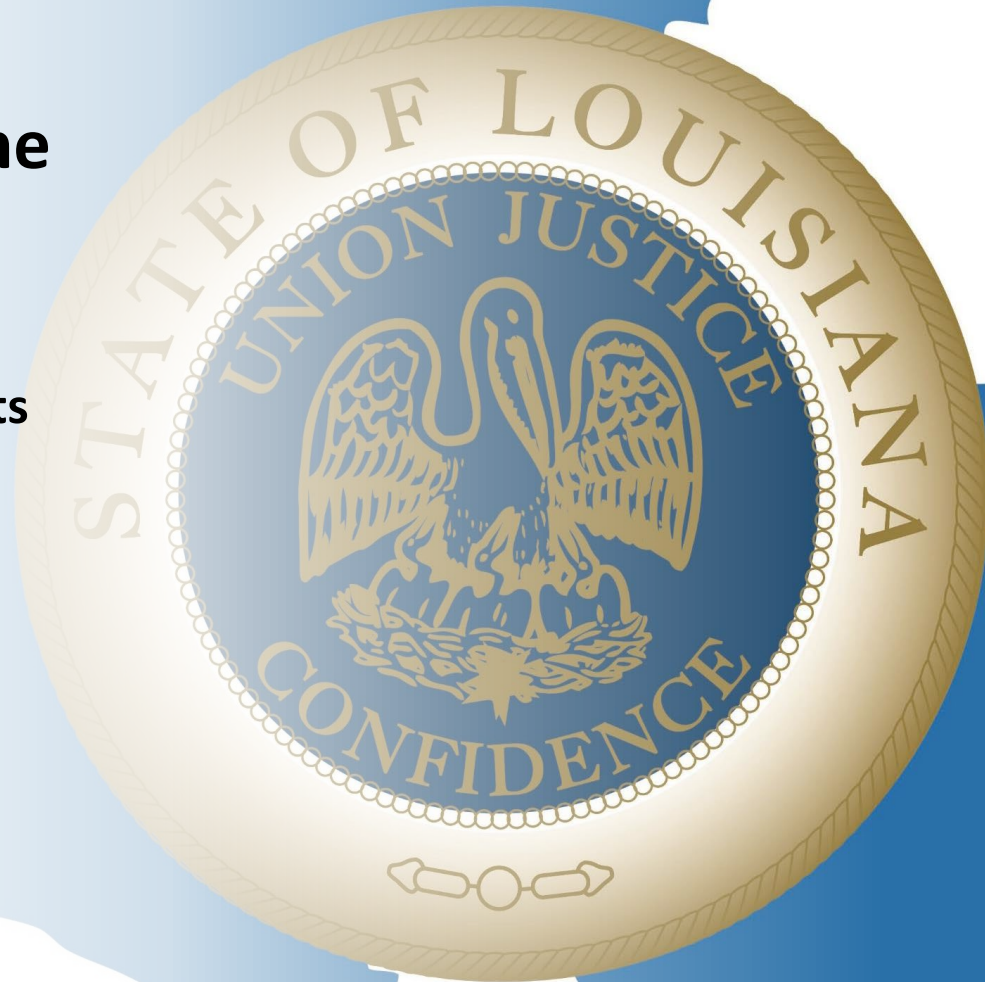
Sustainability & Preservation of the Southern Hills Aquifer

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Maximize Additional Funding Sources

Existing Laws and Rules



Existing Law



2022 Modifications to enabling legislation

New legislation was passed to allow the Board of Commissioners to recover project costs, which “...may include specific systems and technologies to allow for remote monitoring of flows, water levels, water quality, and other parameters considered necessary by the board to conserve and protect groundwater resources....”

Existing Rules



2022 Rule Modification

LAC 56:V.707.A.3 - The commission shall have the authority to install an independent remote monitoring system on well owner's property for the purpose of ensuring an accurate measurement of the total yield of each well and monitor the extent of the chlorides in the aquifer to prevent waste of groundwater resources, and to prevent or alleviate damaging or potentially damaging subsidence of the land surface caused by withdrawal of groundwater within the district.

Newly Promulgated Rules



2023 Rule Modifications

I. LAC 56:V – Chapter 7

1. Removes the requirement of dual metering by the District and the well owner.
2. Allows for manual type metering system in instances where production is of a small volume and would not warrant a full SCADA system.
3. Clarifies the responsibility of O&M and energy costs remaining with the District.

II. LAC 56:V – Chapter 9

1. Specification of information to be included in plans submitted in the permit application.
2. Placing into rule the two-part permitting process.
3. Placing into rule statutorily allowed fee.



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Questions & Discussions

