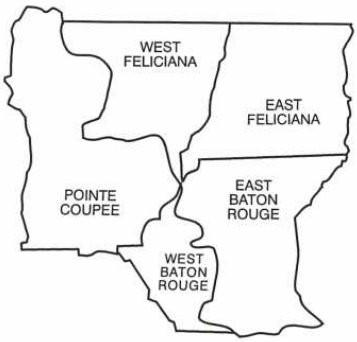

Capital Area Ground Water Conservation Commission

Watching out for A Treasured Earth Resource

Dedicated to the conservation, orderly development and protection of quality of ground water in the Capital Area

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Commission & District News

Scheduled Meetings. – The Technical Committee will meet at 1:30 p.m. Tuesday, March 13, 2007 in the conference room of the U.S. Geological Survey at 3535 South Sherwood Forest Boulevard, Baton Rouge. The regular meeting of the Board of Commissioners will be held at 9:30 a.m., Tuesday, March 20, 2007 in the conference room of the U.S. Geological Survey. The Administrative Committee will meet at 8:30 a.m. in the Commission office, Suite 129, 3535 South Sherwood Forest Boulevard, one hour before the regular meeting.

December Meetings. – The Technical Committee met at 1:30 p.m., Tuesday, December 5, 2006, at 3535 South Sherwood Forest Blvd., Baton Rouge, Louisiana.

Paul Frederick, USGS presented updated information on the three subsidence monitor wells located in the industrial area. New equipment was purchased and installed on the wells in 2002 resulting in more accurate data collections. The wells were completed at three depths: shallow (600-foot sand), intermediate (1,700-foot sand), and deep (2,800-foot sand). Overall subsidence for the past four years is about 0.1 foot, which is due to pumpage from the entire section of freshwater sands.

The results show a similarity to the data presented by Whiteman (1980) in an earlier report. Elastic compaction and rebound are exhibited in the shallower units. These sands display seasonal high and low water levels affected by the loading effect of seasonal river stages. The three wells are maintained by the USGS in a cooperative agreement with the Commission.

The Committee had an extended discussion on plans to model the "2,000-foot" sand. Earlier meetings by the Long Range Committee had indicated a need for monitor wells to delineate the area of saltwater encroachment. The plan was then revised to build a model which would give better definition to locations where wells were needed and predictive estimates of direction and rate of movement of advancing saltwater.

A proposal was presented by the USGS to model the "2,000-foot" sand. The project would be extended over a four year period with a total cost of about half a million dollars. The completed study would consist of a model that would be used as a management tool to determine future use. An alternative proposal was suggested to include the "1,500-foot" sand in the proposal. In order to fund the proposal the Commission will seek assistance from the major sources including parish and state government, industry and public supply users. The plan was discussed further at the regular Commission meeting December 12th, and the alternative proposal to include the "1,500-foot" sand was adopted.

Water–Level Trends 2006

A summary of hydrographs through October shows downward trends in most of the aquifers. The second quarter pumpage for the District was 13% over the previous year, and most of the increase was due to public supply use (figure 1). A significant increase in population occurred following hurricane Katrina, resulting in a greater demand for public supply water.

Key observation well graphs are shown on page 3. Water levels through October 2006 are plotted on the graphs. Summaries of the water-level trends are shown in table 1. It should be pointed out that the water-level trends as seen in the table are in proportion to the well's location with respect to the area of maximum drawdown. For example, well EB-367 is in such an area and shows a decline of 4 ft/yr. Well EB-168 is located off-center from the point of maximum drawdown, and indicates a decline of 2 ft/yr.

Well	Sand	Trend	Rate
EB-146	"1,200-foot"	Falling	3.5 ft/yr (10-year period)
EB-168	"1,500-foot"	Falling	2.0 ft/yr (10-year period)
EB-804A	"1,700-foot"	Falling	3.2 ft/yr (10-year period)
EB-367	"2,000-foot"	Falling	4.0 ft/yr (10-year period)
EB-806B	"2,400-foot"	Falling	3.0 ft/yr (10-year period)
EB-468	"2,800-foot"	Falling	1.5 ft/yr (10-year period)

Table 1

The bar graph in figure 1 depicts the increase in public-supply use over the past three and a half years. The trend in industrial pumpage is almost level over the same period, and is probably due to increased use of the Mississippi River for industrial processes.

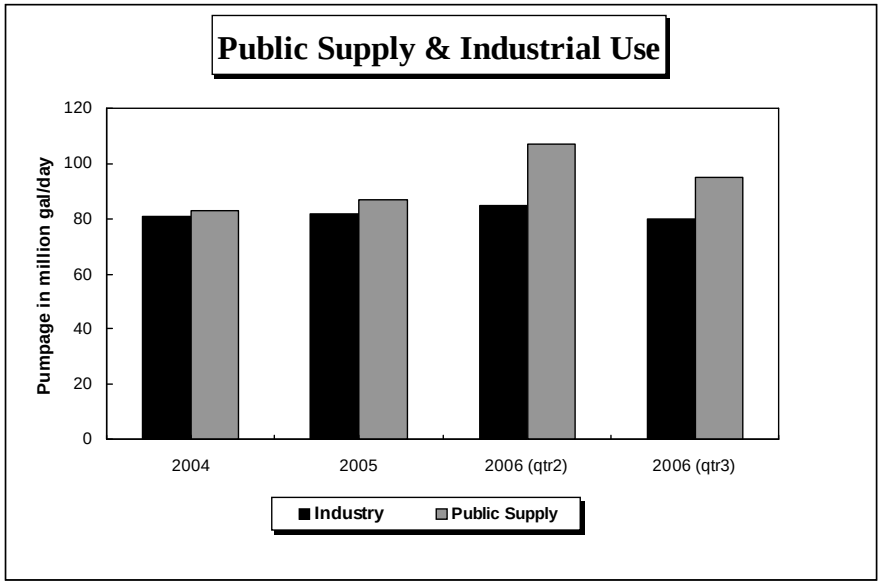

Figure 1

Water Conservation

In many parts of the United States, water conservation is not just a byword. In times of drought it may be enforced by local ordinances. People are asked to cut back on water use in many ways. Lawn watering and car washing are restricted. Even in Louisiana most of our aquifers are showing water-level declines and quality problems associated with saltwater encroachment.

A study made by Texas A&M University reported that 20 percent of potable water in the United States is used to flush toilets and urinals. A conventional urinal in an office building will use an average 40,000 gallons of water per year (U.S. Water News, October 2006). Unfortunately, this water is good quality drinking water. In our office here, the urinal has a tendency to overflush. Water cascades down the drain and sometimes on the floor because the cutoff valve does not operate efficiently. Many older toilets across the country are notorious water wasters, using 3.5 up to 8 gallons per flush. Since 1992, standard toilets have a 1.6 gallon tank and an enlarged trap at the bottom of the toilet to allow quicker removal of water and waste.

A 51-story Bank of America building is being constructed in New York that will have low-flow faucets, toilets and showers. As for the urinals, they will be waterless. Besides saving water, there is a savings in electricity because less water is required to be pumped up to the floors of the building. The waterless urinal works in the following manner.

- Gravity drains the urine into a trap cylinder
- The trap cylinder is equipped with a thin layer of sealant that prevents odors from escaping
- Water flows from the cylinder into a drainpipe connected to the urinal

Discourage litigation. Persuade your neighbors to compromise whenever you can. As a peacemaker the lawyer has superior opportunity of being a good man. There will still be business enough.

Abraham Lincoln