Regular Session, 2014

HOUSE CONCURRENT RESOLUTION NO. 89 (Substitute for House Concurrent Resolution No. 52 by Representative Foil)

BY REPRESENTATIVE FOIL

WATER/RESOURCES: Provides relative to the management regime for the Southern Hills Aquifer System

A CONCURRENT RESOLUTION

To urge and request the commissioner of conservation to continue monitoring the health and sustainability of the Southern Hills Aquifer System and to use the results of simulations conducted by the U.S. Geological Survey on the fifteen hundred foot sand and the two thousand foot sand to develop management regimes for the health and sustainability of the Southern Hills Aquifer System.

WHEREAS, the Southern Hills Aquifer System is a system of several aquifers underlying the parishes of East and West Baton Rouge, Pointe Coupee, and East and West Feliciana with ten of those north of a fault line that bisects East Baton Rouge Parish; and

WHEREAS, the Southern Hills Aquifer System is the major source of drinking water for the Capital Area Region and there are numerous industrial facilities that withdraw potable water from the aquifer system for their industrial processes; and

WHEREAS, there has long been concern about the viability, sustainability, and health of the Southern Hills Aquifer System; even as long ago as the early 1960s there were concerns about saltwater being drawn from the southern portions of the system below the fault line into the freshwater portions of the aquifer north of the fault line; and

WHEREAS, the concern about the sustainability of the aquifer system has been growing recently and has resulted in many activities, discussions, studies, and public hearings culminating in the July, 2013, release by the U.S. Geological Survey (USGS) of their "Simulation of Groundwater Flow in the '1,500-foot' Sand and the '2,000-foot' Sand and Movement of Saltwater in the '2,000-foot' Sand of the Baton Rouge Area, Louisiana" report (USGS report); and

WHEREAS, according to the abstract of that report, "Groundwater withdrawals have caused saltwater to encroach into freshwater-bearing aquifers beneath Baton Rouge, Louisiana. Groundwater investigations in the 1960s identified a freshwater-saltwater interface located at the Baton Rouge Fault, across which abrupt changes in water levels occur."; and

WHEREAS, the same abstract also states, "Groundwater withdrawals from an aquifer that is 2,000-feet (ft) deep in East Baton Rouge Parish (the "2,000-foot"sand of the Baton Rouge area) have caused water-level drawdown up to 356 ft and induced saltwater movement northward across the fault. Saltwater withdrawals from the "2,000-foot" sand averaged 23.9 Mgal/d 2010. Saltwater encroachment threatens wells that are located about 3 miles north of the fault, where industrial withdrawals account for about 66 percent of the water withdrawn from the "2,000-foot" sand in East Baton Rouge Parish."; and

WHEREAS, the USGS presented five hypothetical scenarios simulating the effects of different groundwater withdrawal options on the water levels in the "1,500-foot" sand and the "2,000-foot" sand with the first scenario simulating a continuation of the 2007 withdrawals being used as the base for comparison; and

WHEREAS, the findings of these simulations indicate that scenario 2, " . . . discontinuation of withdrawals from seven selected industrial wells located in the northwest corner of East Baton Rouge Parish, and water levels within the "1,500-foot" sand were predicted to be about 15 to 20 ft higher under this withdrawal scenario than under scenario 1." (USGS report) and scenario 3 which simulated " . . . the effects of a scavenger well, which withdraws water from the base of the "2,000-foot" sand at a rate of 2 Mgal/d, at two possible locations on water levels and concentrations within the "2,000-foot" sand." finding that " . . . operation of the scavenger well in the locations specified in scenario 3 reduces the chloride concentrations at all existing chloride-observation well locations." (USGS report); and

WHEREAS, scenario 4 simulated a 3.6 Mgal/d reduction in total groundwater withdrawals from selected wells in the "2,000-foot" sand resulting in " . . . the median and mean plume concentrations are slightly lower than scenario 1." (USGS report), and scenario 5 simulated the effect of ". . . total cessation of groundwater withdrawals from the "2,000-

foot" sand in the industrial district." finding that " . . . the chloride-concentration distribution in scenario 5 reflects the change in groundwater flow direction. Although some saltwater would continue to cross the Baton Rouge Fault and encroach toward municipal supply wells, further encroachment toward the industrial district would be abated."; and

WHEREAS, in a letter dated November 27, 2013, from Commissioner of Conservation James H. Welsh to the chairman-elect and the director of the Capital Area Groundwater Conservation Commission (letter to the CAGCC), the commissioner states that the USGS " . . . scenarios for the 2,000-foot sand indicate that simply reducing or ceasing the industrial area pumping center's withdrawals from that sand would lessen saltwater encroachment between that pumping center and the fault to the south, but at the same time likely would result in accelerated saltwater encroachment at greater concentrations toward the public supply wells further south and east . . ." in the two thousand foot sand " . . . due to their closer proximity to the saltwater source."; and

WHEREAS, in the same letter, the commissioner acknowledges that " . . . modeling of potential scavenger well impacts . . . indicates that this protection would likely come at the expense of accelerated encroachment toward wells between the scavenger well and the fault to the south."; and

WHEREAS, management of the Southern Hills Aquifer System to ensure the health and sustainability of the aquifer must be based in science and any decisions by the commissioner of conservation that apply to withdrawal rates, placement of wells and scavenger wells, and saltwater encroachment mitigation projects must be carefully considered for their impact on the entire region and such decisions must have a scientific basis.

THEREFORE, BE IT RESOLVED that the Legislature of Louisiana does hereby urge and request the commissioner of conservation to continue monitoring the health and sustainability of the Southern Hills Aquifer System and to use the results of simulations conducted by the U.S. Geological Survey on the fifteen hundred foot sand and the two thousand foot sand to develop management regimes for the health and sustainability of the Southern Hills Aquifer System.

BE IT FURTHER RESOLVED that a copy of this Resolution be forwarded to the commissioner of conservation.

DIGEST

The digest printed below was prepared by House Legislative Services. It constitutes no part of the legislative instrument. The keyword, one-liner, abstract, and digest do not constitute part of the law or proof or indicia of legislative intent. [R.S. 1:13(B) and 24:177(E)]

Foil HCR No. 89

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