

## THE FUTURE OF OUR WATER SUPPLY

Recent news has alerted The Board of Directors of the Bastrop County Audubon Society to the demand for an unprecedented withdrawal of large volumes of water from the local portion of the Carrizo-Wilcox Aquifer System by commercial interests hoping to transport the water out of district for use in highly developed areas. Such an appropriation of our water supply is unreasonable and possibly disastrous.

Promoters of various plans to overdraft the aquifers seem on the surface to be within the laws. But overdrawing of our aquifers can result in permanent damage to the aquifers and to our future water supply.

### CONSIDER THE FACTS

The additional proposed production of 123,000 acre feet of water per year from the Simsboro aquifer is unprecedented and excessive. Current demand is approximately 28,000 acre feet and is just maintaining equilibrium of the aquifer. How can this additional demand not be detrimental?

It is a known fact that heavy drawdown over sustained periods can and will reduce an aquifer's pressure and lower the water table. This can cause numerous production problems for existing wells and springs. Since the Carrizo-Wilcox Aquifer System is not uniform in structure, these problems and the degree of severity will occur in some places more than others.

Even more important than the resultant future impact on the ability to produce sufficient water, the reduction of aquifer pressure can cause the movement of pollutants from coal seams into the aquifer. There is an abundance of coal within, adjacent to, and above the Carrizo-Wilcox, including the Simsboro portion of the aquifer. Likely pollutants include hydrogen sulfide, methane, acid water and others. These pollutants will be free to move into and above the aquifer. Such contamination from coal seams has been demonstrated in similar aquifers with disastrous results.

### POSSIBLE OUTCOMES

Public and commercial water production from the Simsboro would decrease. The shallower and thinner water sands will be the first to experience falling water levels. Ultimately the drawdown will dewater the aquifer and it will exist only with a limited recharge from surface water. Wells into these sands will either have to be deepened to reach lower water levels or if contaminated, abandoned. If pollutants from coal seams have moved into the aquifer, it is doubtful that contaminated wells would be suitable for drinking water or for irrigation. Existing wells with current contamination issues could worsen. Damage to an aquifer by coal pollution is irreversible and dangerous to all who utilize the aquifer.

### OTHER IMPORTANT CONSIDERATIONS

Although property owners' rights to their water are undeniable, these rights as recognized by the State do not allow for unreasonable use of the water. Unreasonable use of the water would include wasting it or using it in a manner that violates other's civil rights, including causing harm to current or future users of the water. In this matter, it seems that with the knowledge that the excessive pumping and transfer of water sold and purchased could cause the above mentioned destruction to the aquifer and water supply, this is clearly an unreasonable use of the water.

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Ignorance is no justification for careless or imprudent action. The scientific literature and history is replete with information from which reasonable predictions can be made. A study of Federal Court records reveals that at least two cases have been adjudicated showing damage was caused by depressurizing coal in the presence of water sands. Catastrophic and permanent damage was done to extensive water sands.

### RECOMMENDATIONS

Any immediate plans for significant withdrawal of water from the Carrizo-Wilcox Aquifer System should be canceled or postponed until a number of important concerns are addressed. The condition of the aquifer should be determined, utilizing current and additional studies, to establish safe withdrawal rates.

All withdrawal rates and well locations should be decided by scientifically verifiable recommendations. Decisions should not be based on political or purely economical considerations.

The rate of water usage should be based on the premise that any significant loss of head or aquifer pressure must be avoided or significant loss of pressure on the aquifer system could result in pollution from the coal seams and other sources. An immediate appeal should be made to well owners to test wells in order to establish and maintain a baseline database to assist the local groundwater districts in monitoring the condition of the water sands. This data could provide an effective early warning system to help prevent damage to the water supply.

Whoever engages in willful or negligent practices, resulting in damage to the current and future users of the Carrizo-Wilcox Aquifer System must be held liable to the full extent of the law

Prepared and submitted by members of the Bastrop County Audubon Board, December 15, 2011

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