LETTER TO THE EDITOR FROM GENERAL MANAGER

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Sharing the Edwards Aquifer and the Other Water Resources of Our Region

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> Nature within the past decade has inscribed upon the wide-spreading Texas landscape grim warnings of greater disasters to come if development of the State's water resources is neglected. (1961 Texas Water Plan)

The Past

These opening words of the 1961 Texas Water Plan are just as appropriate today as they were 39 years ago, when they introduced the state's first blueprint to meet our future water needs during a repeat of the drought of record. The drought of record, which lasted from 1947 to 1957, was the worst drought since detailed records have been kept. During the drought's worst year in 1956, Comal Springs dried up for 144 days.

Until the drought of record, the pumping demand from groundwater wells was so small that it made little difference to the abundant Edwards Aquifer and its outlets at Comal and San Marcos Springs. Now, increased groundwater pumping, particularly during years of below - normal rainfall and low recharge, accelerates the aquifer's decline and reduces the flow from the springs.

Springs from the Edwards Aquifer are the headwaters of many of the region's rivers, including the San Antonio River, the Comal River and the San Marcos River, all of which eventually flow into the Guadalupe River and then into San Antonio Bay. The

Cities of San Antonio, San Marcos and New Braunfels were founded near the springs long before water was available from wells drilled into the aquifer.

During droughts, springflow from the Edwards Aquifer is a crucial contributor to the base flow in the Guadalupe River. When these springflows are reduced those individuals, corporations, municipalities and other entities that hold surface water rights are severely affected. In addition, reduced freshwater inflows to the San Antonio Bay could seriously impact the coastal ecology as well as the commercial seafood industry.

When the drought of record ended, some major cities that were short of water, -- such as Dallas and Fort Worth -- built reservoirs as recommended in the 1961 Texas Water Plan. In our region, the response was largely to drill more groundwater wells because it was easy and inexpensive compared to constructing reservoirs (Canyon Reservoir was already under construction). This response was also due to the rule of capture -- which allows a landowner to pump as much water as desired, without regard to the affect on their neighbors wells.

The 1961 plan actually discouraged San Antonio from over-reliance on the Edwards Aquifer, noting that irrigation was depleting groundwater supplies needed for future municipal use. There was only limited irrigation from the Edwards prior to the 1950's. The 1961 plan also encouraged the "importation of water from the east" for San Antonio.

The 1968 update of the Texas Water Plan concluded that pumping from the Edwards Aquifer should not exceed 400,000 acre-feet annually (an acre-foot is 325,851 gallons). Since that time pumping has reached 542,000 acre–feet. Years before the Endangered Species Act of 1973 and the litigation in the 1990s, the State of Texas through the 1968 Texas Water Plan advocated preserving flow from Comal and San Marcos Springs to provide "part of downstream surface water supplies . . . as well as enhance the scenic, cultural, and recreational value of the area." Thus, justification for guaranteeing minimum flow from the springs initially arose from the generation of economic and aesthetic benefits in New Braunfels, San Marcos, and downstream.

Although it often may not seem so, we have been fortunate in recent decades. Since the 1960s, our region has generally been in a wet cycle despite periodic short – term droughts. For example, the 1990s was the record decade of recharge for the Edwards Aquifer, with as much recharge accumulating as the 1940s and 1950s combined. Much of the population growth in our region has occurred during this wet cycle.

Today, the recharge zones of regional aquifers are being paved over at the very same time more people are arriving who must depend on these aquifers for their water. No one knows what the future will bring, but remember, Texas is located along the same latitude as many of the Earth's deserts. We live on the northern border of the Chihuahuan Desert, in a region with some of world's most variable weather: drought one year and flood the next.

The Present

This summer, some well levels in the Trinity Aquifer reached all - time lows. The South Texas Watermaster notified water right holders on the Blanco, upper Guadalupe, Medina and San Antonio Rivers that their use of water might be curtailed. The inflow to Canyon Reservoir diminished to less than 10 cubic feet per second (cfs), while the Guadalupe-Blanco River Authority (GBRA) was obligated to release 50 cfs from Canyon Reservoir in order to meet downstream needs. Reduced flow in the Guadalupe River required the GBRA to inflate its Salt Water Barrier near the San Antonio Bay to prevent bay water from flowing up the river and contaminating municipal water supplies.

During this time, Comal Springs was contributing about 150 cfs of flow to the Guadalupe River and San Marcos Springs was contributing another 110 cfs. This combined springflow provided the majority of the flow in the river.

As springflow declines at Comal and San Marcos Springs, the habitat for seven endangered and one threatened species shrinks, as well as the amount of surface water available for those who have permits on the Guadalupe River. The fountain darter, the Edwards Aquifer's 'canary in the coalmine', is the first to be affected at Comal Springs. In September, Comal Springs reached the level at which the survival of the fountain darter is in jeopardy.

The Future

During the last year, the members of South Central Texas Regional Water Planning Group L, who represent many interest groups, have been working diligently on a new plan to provide our region with water for the next 50 years. The plan they have developed will require a commitment from everyone if it is to succeed.

Many cities are already responding to meet their future needs. San Marcos and New Braunfels are now primarily surface water users. Boerne and Seguin are also developing alternative water supplies, and Victoria is building its first surface water treatment plant.

No one in our region has a water supply that is isolated from its neighbors. If the Region L plan fails to gain support, it will have wide - ranging consequences beyond our region. For example, the Region K plan that provides future water options for much of the Colorado River Basin is also dependent upon the success of the Region L plan.

Although Texas water law has yet to recognize this concept, surface and groundwater are interconnected. The Edwards, Trinity, Carrizo-Wilcox and Gulf Coast Aquifers as well as the Guadalupe, San Antonio and Nueces River Basins are regional resources that must be managed conjunctively with regard to how the use of one affects the other.

Water is the key element determining both the sustainability of the region's environment and the sustainability of the economy. The days when we can rely solely on the Edwards Aquifer have ended. Previous plans to address our water needs gathered dust for lack of support, but now we have a blueprint for supplying our future needs. It is time for us to all get behind the Region L plan – our future depends on it.