

PROTECTING THE AQUIFER, Stewardship and Cost Effectiveness

If we want to protect the quality and quantity of our water supply from the Edwards Aquifer, the protection program must be expanded, not cut in half.

The city's own study by Logistics Management Institute (LMI) calls for increased (my emphasis) funding to "eliminate this hazard"— "that demand will be greater than the permitted withdrawal." (LMI 2018, p. 4-7)

The 2018 LMI study evaluating "protected" aquifer acreage makes clear that SAWS permits are not protected through 2070, even after maximum usage of non-Edwards sources is taken into account. It is not OK to protect only 68% of San Antonio's aquifer withdrawal permits in "normal" years. It is not OK to protect only 38% of San Antonio's aquifer permits during drought. (LMI, Tables 4-3, 4-4)

When the Edwards Aquifer Protection Program began in 2000, development was occurring mostly inside loop 1604. The focus then was on protecting water quality in the Recharge Zone above San Antonio. Rapid population increase extending north has now spread development onto the Contributing Zone, where 80% of aquifer watershed rain falls that is funneled into Edwards recharge.

WATER QUALITY: If the Contributing Zone is increasingly covered with impervious surfaces, more polluted water will be funneled unfiltered into the Recharge Zone. If that pollutes the aquifer, it would take two treatment plants costing about \$1.4 billion according to SAWS CEO Robert Puente to make our water drinkable. This is one perspective on why spending \$20 million/year to protect water quality in the watershed is so important.

WATER QUANTITY: Also protecting Edwards permit amounts from being reduced depends on protecting minimum springflow during severe drought to preserve species at Comal and San Marcos Springs to the satisfaction of US Fish and Wildlife Service. If more impervious cover in the Edwards watershed and projected climate change combines to reduce drought recharge, greater critical period

reductions than the present maximum of 44% could be required to protect springflow. Reducing Edwards permits of 572,000 acre-feet/year by an additional 8.8%, or 50,000 acre-feet, could cost SAWS about \$2.8 billion to replace with non-Edwards sources. Spending \$20 million per year, increased each year to provide for real inflation, to protect the entire watershed to prevent more reductions in water supply permits is actually a bargain.

Currently, only about 6% of the Edwards watershed above San Antonio is protected by EAPP easements and purchases, almost all of it is in the Recharge Zone. Less than 1% of the Contributing Zone is protected.

The 2018 EAA staff white paper recommends protecting the most sensitive areas in the Contributing Zone over adjacent aquifers and along stream beds feeding the Edwards Aquifer. It recommends protecting at least 276,000 acres in the Contributing Zone affecting water quality of SAWS permits. This is in addition to completing the initial EAPP goal in the Edwards Recharge Zone by adding about 110,000 more acres to the area protected by the EAPP. (It is illegitimate to count parks or government acreage unless these properties are subjected to the same very strict protection provisions required by the EAPP's conservation easements. Adding just 60,000 acres, and only in the recharge zone, as referred to by an assistant city manager in an article by Brian Chasnoff in the Express-News, would seriously understate needed additional protection.)

The Edwards Aquifer Authority is exploring beginning a protection program that would be complementary to and not a replacement of San Antonio's EAPP. (See "Next Generation" paper approved unanimously by the EAA board of directors August 11). The EAA program will begin as a complement to the city's program in areas not covered by EAPP. The EAA will depend on collaboration by many different entities in the region, including the City of San Antonio and SAWS.

Any funding "substitute" for San Antonio's EAPP funding provided by the aquifer sales tax must be at least \$20 million per year to

continue the present program. The COSA program funding must increase with inflation and be renewed kept in place through 2070, as long as Edwards aquifer scientists affirm the need. The city's EAPP must be renewed and continued at sufficient funding levels to protect SAWS permits through 2070. It should not be arbitrarily ended. No one should be fooled or assuaged by a proposed program with reduced funding that cannot even complete "protection" of the acreage in the recharge zone above San Antonio.

Everyone needs water. San Antonio is here because of the aquifer that is our heritage and it demands our stewardship. How can we divert the aquifer sales tax to other uses, including more bus services until city council has voted to provide continued funding levels from other revenue sources, renewable and cost-adjusted for inflation so that our aquifer water supply is protected?

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<https://www.edwardsaquifer.org/wp-content/uploads/2019/12/CoSA-EAPP-Combined.pdf>