



## Revenues for Source Water Protection

### *Strategic Recommendations for the City of Austin*

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#### **Introduction.**

In the summer of 2019, the Texas Water Trade (“TWT”) prepared a report for the Great Springs Project, Inc. (“GSP”), detailing recommendations to enhance revenue and financing options for source water protection. TWT’s report primarily focuses on adjustments that could be made to cost of service allocations within the budgets of the various drainage and water utilities within Central Texas cities, including the Austin Water Utility. As part of this analysis, TWT analyzed various legal options and the total available debt capacity for each drainage and water utility. This presentation accompanying this report is meant to summarize TWT’s findings, as they relate to the City of Austin, and offer recommendations on ways that Austin can maximize its financial resources to protect source water protection lands for the benefit of its residents.

#### **Source Water Protection: Overview.**

The quality and quantity of a city’s drinking water supply can be influenced by both natural and human activities; the same can also be said for other water bodies used for recreational, environmental and drainage purposes. “**Source Water**” is a term used to describe drinking water in its original environment, either as surface water (rivers, streams, lakes) or as groundwater (aquifers) before the water is withdrawn, treated, and distributed for public consumption by a water system.

“**Source Water Protection**” involves the management of areas through which water travels and the regulation of the activities that occur on related lands, in order to prevent pollution and contaminants from entering public drinking water sources. One of the most effective ways to protect source water is to acquire land over which the water flows, or to otherwise restrict development on sensitive lands through conservation easements or other mechanisms. These protections preserve the land’s ability to continue to act as a natural filtration system for water as it enters water sources, as well as preventing additional contaminants from development activities.

#### **Historic Information: City of Austin.**

The City of Austin has identified the Edwards Aquifer as an important source of drinking water to meet its future demands and, in 1998, established its Water Quality Protection Lands Program. The program has been supported by five voter-approved bonds, totaling approximately \$230 million, with partnership contributions adding another \$24 million. Averaged out, this equates to approximately \$9 million per year, since the program was established. Both revenue bonds (backed by Austin Water Utility revenue) and general obligation bonds (backed by City of Austin general revenue) have been issued. However, starting in the year 2000, funding for land acquisitions for source water protection has almost exclusively derived from general revenue via general obligation bonds.

The City of Austin maintains a long-term goal to maintain overall impervious cover at less than ten percent (10%) of the Source Water Protection Area, which equates to approximately 100,000 acres of land that need permanent protection. This goal is based upon the irreversible water quality impacts that are observed when total impervious cover exceeds 10%. As of 2018, the City of Austin completed

28% of the overall goal, with over 28,000 acres of land permanently protected. Over 70,000 acres of land is still needed to be protected within the Source Water Protection Area.

### **Bond Capacity.**

*General Obligation Bonds.* Both state law and the Austin City Charter establish limits on the total amount of taxes that may be levied as compared to the total assessed value of real property within the City, for general obligation purposes. The practical limitation on taxes levied for debt service is \$1.5 per \$100 of assessed valuation. Current financial policies ensure that the City of Austin stays well under such limit (6.95% of debt limit in FY2018).

*Water Utility Revenue Bonds.* Most Austin Water Utility (“**AWU**”) revenue bond covenants establish a debt coverage ratio of 1.25 (as expressed as a ratio of “net available revenue” divided by “total principal and interest owed”). However, AWU policies financial policies target a more conservative debt service coverage of 1.5. The AWU debt coverage ratio was 1.57 as of FY2018, demonstrating capacity to take on more debt.

### **Clean Water State Revolving Fund.**

The Texas Water Development Board (“**TWDB**”) administers the Clean Water State Revolving Fund (“**CWSRF**”), which provides low-cost financial assistance for planning, acquisition, design and construction of wastewater, reuse and stormwater infrastructure. Recently, the TWDB clarified that the program includes “land conservation for water quality protection enabled through the acquisition of conservation easements.” Eligible applicants in the program include municipalities, such as the City of Austin. Because the CWSRF offers discounted interest rates for long-term debt, TWT recommends that any revenue generated for source water protection be leveraged by the CWSRF, which can offer substantial financial savings.

Based on conversations with the City of Austin Finance Department, although the General Obligation Bonds adopted by Austin voters for water quality protection would technically qualify for the CWSRF, the debt period for GO bonds is too short to realize significant savings from participation in the program. Other revenue sources that are leveraged for longer periods, such as water utility revenue, may offer more tangible savings to the City of Austin through participation in the CWSRF.

The City of San Marcos recently participated in the CWSRF for the acquisition of undeveloped land near the Edwards Aquifer Recharge Zone and within the Sink Creek drainage basin to mitigate pollution risks from non-point sources. Total CWSRF financing for the project amounted to \$3.2 million, with \$1.9 million in the form of a low-interest loan at 1.33% interest. Total savings to the City of San Marcos for the project amounts to \$1.6 million, as compared to market rates.

### **Source Water Protection Revenue Sources.**

As part of its analysis, TWT looked at other utility models across the state and in other parts of the nation to help formulate various approaches to generating revenue. Based on their findings, utilities across the nation have used the following revenues for source water protection: impact fees for new connections; watershed/drainage fees; general obligation bonds; sales tax revenue; and utility revenue bonds. Closest to home, the San Antonio Water System adopted a “Water Supply Fee” which is used to recover costs for water supply diversification and water quality protection, as part of its Sensitive Lands Acquisition Program. Based on this comparative analysis, TWT selected five revenue approaches that would work within the laws of the State of Texas.

### City of Austin: Revenue Approaches.

TWT estimated that the Austin Water Utility could, under current rates, support new debt of approximately \$30 million, without raising any additional revenue. Notably, this analysis does not factor debt capacity freeing up from the repayment of older revenue bonds. The 2016 Austin Water Utility Cost of Service Study included \$5.6 million annually for land acquisition debt payments, which represents 2x the revenue recommended under this report.

However, to work within the constraint of generating new revenue, TWT considered five separate approaches to raising revenue for source water protection, including methods to reestablish a land acquisition program within the Austin Water Utility. These scenarios include:

- Approach 1. Establish a \$1 per month Source Water Protection Fee (or \$12 per year) for each water connection;
- Approach 2. Establish a \$3 per month Source Water Protection Fee (or \$36 per year) for each water connection;
- Approach 3. Increase the current drainage fee for all account holders by 1%;
- Approach 4. Dedicate \$12 per capita per year from ad valorem taxes;\* or
- Approach 5. Increase each AWU customer's water and wastewater bill by 1%.

*\*Due to recent constraints on ad valorem taxes adopted by the State Legislature, Approach 4 (which relies on increased funding from ad valorem taxes) is no longer recommended as a viable option for the City of Austin.*

### City of Austin: Revenue Analysis.

Approach	1	2	3	4	5
Revenue Source	Water Rates	Water Rates	Drainage Fees	General Fund (ad valorem)	Water/Waste water Rates
Method	\$1 per month per connection	\$3 per month per connection	1% drainage fee increase	\$12 per capita per year	1% water/ww rate increase
Revenue Generated	\$2.838 M	\$8.516 M	\$0.945 M	\$11.56 M	\$5.512 M
CWSRF Loan Potential	\$76 M	\$228 M	\$25.3 M	\$309.6 M	\$147 M

Under Approach 1, a \$1 per month charge per connection would be sufficient to raise approximately \$236,571 monthly (or, \$2.838 million annually). If channeled through the CWSRF, could leverage up to \$76 million in financing from the TWDB (30-yr term). However, to maintain a debt coverage ratio within the range of 1.25 to 1.83 (current), the total amount of debt that could be secured by revenue from a new charge of \$1 per month per connection would be within the range of \$33 million to \$62 million.

In contrast, under Approach 2, a \$3 per month charge per connection would generate significantly more revenue—approximately \$710,253 monthly (or, \$8.5 million annually). If channeled the CWSRF, could leverage up to \$228 million in financing from the TWDB (30-yr term). This approach is not considered to be presently viable, as it would result in significant increases in the average utility bill.

Under Approach 3, TWT estimates that a 1% increase to drainage fees could raise approximately a million dollars annually, making available up to \$25.3 million in loans from participation in the CWSRF. Even without adding additional revenue, the City of Austin would have sufficient debt capacity to leverage such financing. However, due to statutory constraints, this revenue is less flexible than either general revenue or water utility revenue. If this approach is considered to be a viable path, the Great Springs Project has recommended that a watershed specific program be developed, which might otherwise limit the total revenues available.

Approach 4's reliance on ad valorem taxes is no longer considered a viable option to pursue, due to budgetary constraints imposed by the State Legislature. Nonetheless, TWT's analysis shows that dedicating \$12 per capita per year of general revenue towards source water protection could generate \$11.56 million in annual revenue, which could potentially be leveraged into \$309.6 million loan under the CWSRF. Additionally, TWT projected that, without even adding new revenue, the additional debt would not raise the City of Austin's debt ratio over historic debt limit ranges.

Approach 5 entails a one-time, 1% increase in both water and wastewater rates, for the purpose of source water protection. Such an increase could generate \$5.5 million annually, which could potentially be leveraged into a \$147 million loan under the CWSRF. However, based on debt coverage ratio requirements, it is more likely that the loan would range between \$31 million and \$62 million.

#### **City of Austin: Recommendations.**

Based on the analysis from Texas Water Trade, it is the recommendation of the Great Springs Project that the City of Austin consider adopting a Source Water Protection Fee to generate revenue for land acquisitions as part of a source water protection program. The fee could be modeled similarly to the "Water Supply Fee" adopted by the San Antonio Water System for use in its Sensitive Lands Acquisition Program.

While each of the above-listed revenue approaches offers its unique benefits, the \$1 per month charge per connection, under Approach 1, would raise significant revenue (up to \$2.838 million), while also opening up the opportunity to leverage additional funding from the TWDB (up to \$76 million in ultra-low interest financing). Additional analysis should be carried out to decide the exact dollar amount. While other approaches could generate more revenue, Approach 1 (or an amount of similar scale) would fit within existing debt capacities and minimize the impact felt by utility customers. It is entirely feasible that the proposed \$1 fee could be partially offset by existing costs of service already identified by the 2016 Cost of Service study. Additional analysis should be carried out, alongside the Austin Water Utility, to decide the exact dollar amount.

Additionally, to ensure that the new charge avoids regressive impacts on lower-income utility customers, it is the recommendation of GSP that accounts participating in AWU's Customer Assistance Program ("**CAP**") should be exempted from the fee. *[Note: The exclusion of the CAP customers would lower the protected revenue amounts included herein.]*

As a separate and secondary approach, the Great Springs Project encourages the City of Austin to evaluate and consider the adoption of a marginal increase to the drainage fee, via a watershed specific program. The drainage fee would allow the City to acquire lands in areas where it mitigate current and/or future flooding risks. Many of these lands correlate well with source water protection and,

depending on site characteristics, may be eligible for participation in other federal programs addressing flood mitigation. While this remains a viable option for consideration in source water protection and should continue to be analyzed, it is recommended that the Source Water Protection Fee (under Approach 1) may be easier to administer and would better fit AWU's historic practices.

Collaboration Between:



# Revenues for Source Water Protection

Strategic Recommendations for the City of Austin

Austin Water Utility Oversight  
Committee, March 2020

# Source Water Protection

- ▶ “Source Water”: used to describe drinking water in its original environment, either as surface water (rivers, lakes, streams) or groundwater (aquifers)
  - ▶ Natural water before it is withdrawn, treated, and distributed for public consumption by a water systems
- ▶ “Source Water Protection”: management of areas through which water travels, and the regulation of the activities that occur on related lands, in order to prevent pollution and contaminants from entering public drinking water sources
  - ▶ E.g. regulations like the SOS Initiative Ordinance
  - ▶ E.g. conservation easements or land acquisition

# City of Austin: Historical Involvement in Source Water Protection

- ▶ 1985: Voters approve charter amendment, authorizing revenue bonds for conservation purposes:

“In order to conserve the energy-producing resources, water resources, and wastewater treatment facilities of the city and, therefore, to save money of the city, the city shall have power to borrow money for the purpose of providing conservation facilities, including facilities to be owned or operated by persons other than the city, and to issue revenue bonds, notes or other obligation in evidence of such borrowing. Such bonds shall be a charge upon and payable solely from the public utilities referred to in the first paragraph of Section 11 and the income therefrom, and shall never be a debt of the city. All revenue bonds or obligations shall be issued in accordance with applicable laws of the State of Texas. The council shall have the authority to provide for the terms and form of any purchase agreement, contract, mortgage, bond or document desired or necessary for the issuance of revenue bonds and the providing of any such resource conservation facilities.”

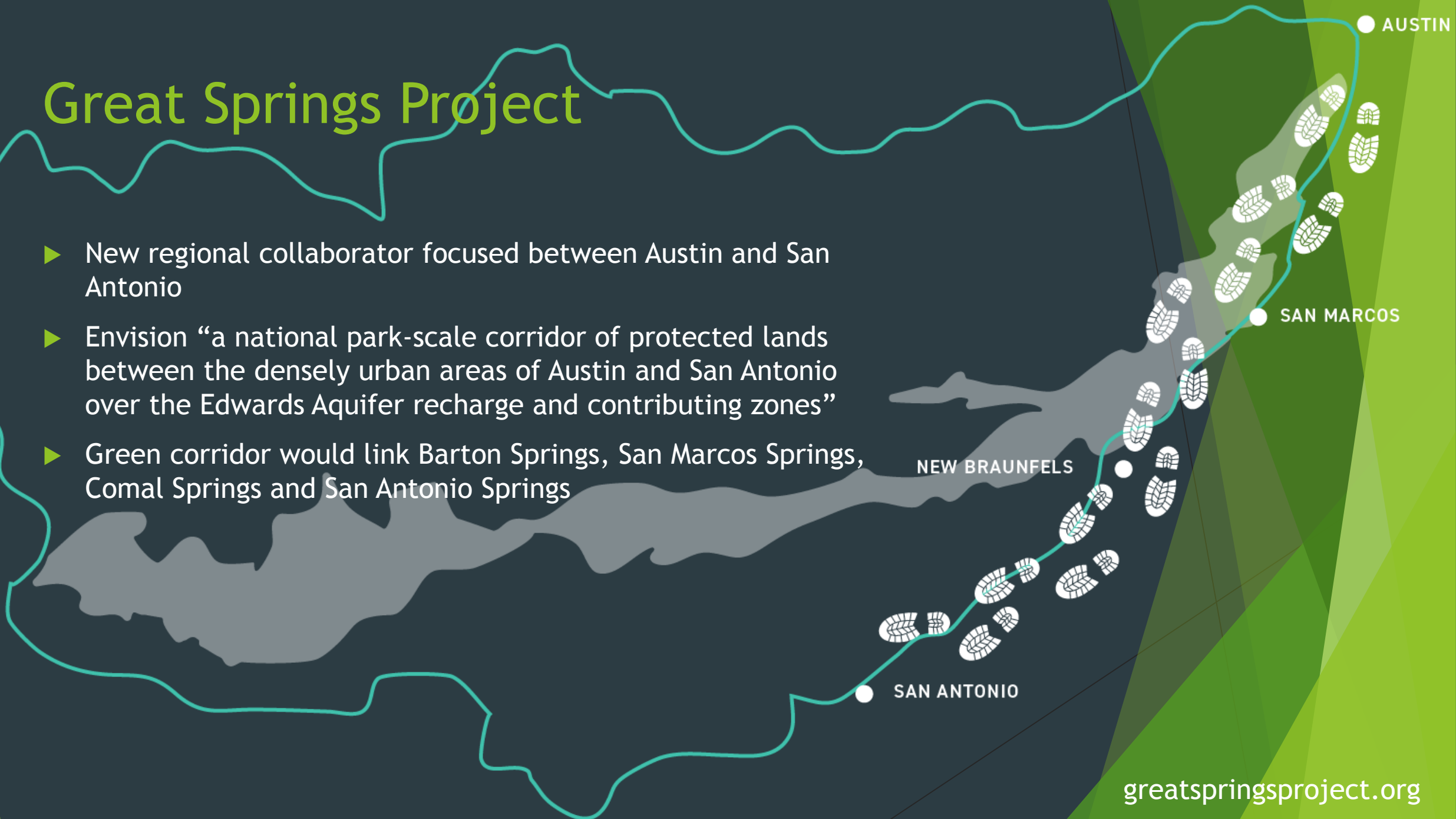


# City of Austin: Water Quality Protection Lands Program

- ▶ Established in 1998 with goal to “maintain overall impervious cover at less than 10% of the Source Water Protection Area”
  - ▶ Equates to approximately 100,000 acres of land that need permanent protection
- ▶ Supported by 5 voter-approved bonds, totaling \$230 million
  - ▶ 1998: \$65 million (AWU Revenue Bonds)
  - ▶ 2000: \$13.4 million (GO Bonds)
  - ▶ 2006: \$60 million (GO Bonds)
  - ▶ 2012: \$30 million (GO Bonds)
  - ▶ 2018: \$72 million (GO Bonds)
- ▶ Generally, City of Austin has spent an avg. of \$9 million/year towards land acquisitions for Source Water Protection
- ▶ As of 2018, COA has protected 28,000+ acres (or 28% of goal)

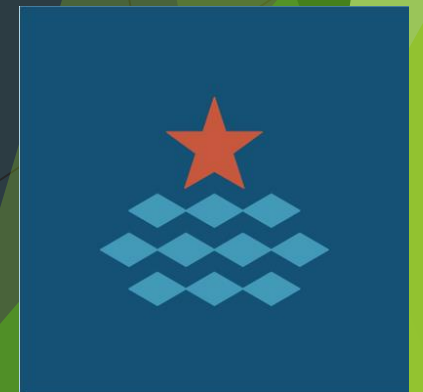
# Great Springs Project

- ▶ New regional collaborator focused between Austin and San Antonio
- ▶ Envision “a national park-scale corridor of protected lands between the densely urban areas of Austin and San Antonio over the Edwards Aquifer recharge and contributing zones”
- ▶ Green corridor would link Barton Springs, San Marcos Springs, Comal Springs and San Antonio Springs



# Texas Water Trade

- ▶ Nonprofit organization “harnessing the power of markets and technological innovation to build a future of clean, flowing water for all Texans”
  - ▶ CEO Sharlene Leurig (also, Chair of Water Forward Task Force)
- ▶ Great Springs Project consulted with Texas Water Trade to look into revenue and financing options for source water protection
  - ▶ Focus on major drainage and water utilities within the Central Texas region, including the City of Austin
- ▶ Also reported on revenue models available across the nation:
  - ▶ Impact fees on new connections
  - ▶ Watershed/drainage fees
  - ▶ General obligation bonds
  - ▶ Sales tax revenue
  - ▶ Utility revenue bonds



# Clean Water State Revolving Fund

- ▶ Administered by the Texas Water Development Board
- ▶ Provides low-cost financial assistance for planning, acquisition, design and construction of wastewater, reuse and stormwater infrastructure
  - ▶ Discounted interest rates + some incentive programs (green, low-income areas)
- ▶ TWDB clarified that the program includes “land conservation for water quality protection enabled through the acquisition of conservation easements.”
  - ▶ City of San Marcos saved approx. \$1.6 million by participating with their acquisition of land within the Sink Creek drainage basin
- ▶ Based on conversations with City of Austin staff, discounted interest rates (and program participation) makes sense for longer-term debt (not GO Bonds)

# City of Austin: Revenue Approaches

- ▶ Key Finding: Austin Water Utility could, under current rates, support new debt of approximately \$30 million, without raising any additional revenue
  - ▶ Notably, this does not factor in debt capacity that might free up from repaying older revenue bonds
  - ▶ 2016 Cost of Service Study includes \$5.6 million annually for land acquisition debt
- ▶ However, the TWT Report focuses on generating NEW REVENUE based on five common models:
  1. Establish a \$1 per month Source Water Protection Fee (or \$12 per year) for each water connection;
  2. Establish a \$3 per month Source Water Protection Fee (or \$36 per year) for each water connection;
  3. Increase the current drainage fee for all account holders by 1%;
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# City of Austin: Strategic Recommendations

- ▶ Adopt Approach #1: Approach #1: \$1 per month charge per connection (offset, to the maximum extent, by available revenues)
- ▶ Leverage this new AWU revenue by participating in CWSRF
  - ▶ Based on debt coverage ratios, likely results in a \$33m to \$62m loan with ultra-low interest rates
- ▶ Would require an affirmative declaration to re-establish source water protection as a priority for the Austin Water Utility
  - ▶ If needed, could be done via voter election (floating revenue bonds)
- ▶ Collaborate with cities to our south on joint-acquisitions
- ▶ Also (outside AWU):
  - ▶ Consider adopting a marginal increase to drainage fees for watershed specific projects
  - ▶ Focus should be on mitigating current and/or future flooding risks

# Questions?

► Contact:

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