



TRI-COUNTY WATER AUTHORITY AND THE SRF PROGRAM

September 16, 2020





Tri-County Water Authority is wholesale water provider serving 15 water systems in the Kansas City Metropolitan Area. Members include:

PWSDs 1,12,13, and 17 in Jackson County

PWSDs 4,5,9,and 11 in Cass County

PWSD 12 of Cass-Bates Counties

The Cities of Blue Springs, and Grain Valley in Jackson County

The Cities of Lake Winnebago, Pleasant Hill, East Lynne, and Drexel in Cass County





- Original project (\$14.8M) funded by loans through MO EIERA and USDA Rural Development
- 2.5MGD Water Treatment Plant (groundwater) along the Missouri River.
- Booster Pump Station located south of Blue Springs.
- Installation of approximately 80 miles of pipeline ranging in size from 8" to 16" in diameter.
- Considered a risky venture, the loans carried interest rates approaching 9%. The base rate was \$4.71 per 1000 gallons purchased, with \$3.38 going to Debt Service.



When I was asked to share comments about Tri-County's experience utilizing the SRF Program to finance a project, my first thought was "which one"?

Since 2001, Tri-County has worked with DNR to fund three projects. The are as follows:

(This picture has nothing to do with DNR, the SRF Program, or even Tri-County. It's simply a reminder that THE CHIEFS WON THE SUPERBOWL !)





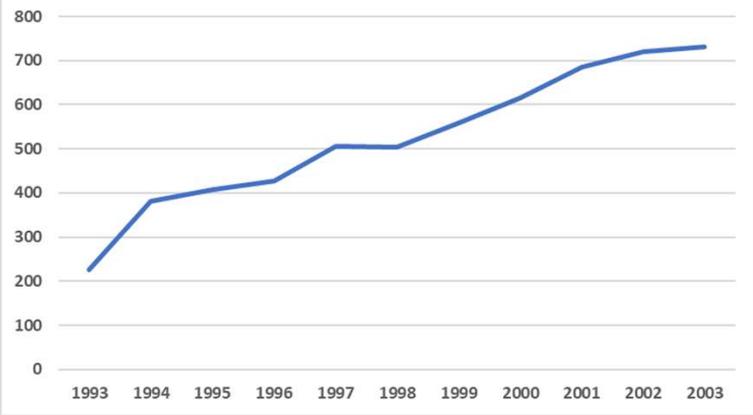
2001 SRF Project

\$2.37M

- This project provided for the construction of:
- A 750K gallon elevated storage tank.
- A booster pump station.
- The installation of approximately five (5) miles of 12" C900 water main to serve the City of Pleasant Hill and PWSD#5 of Cass County.

While relatively small, this project went smoothly and set the tone for a long -standing relationship between the SRF Program and Tri-County Water Authority.

Million Gallons Sold Annually



2005 SRF Project

\$41.6M

- In 2004, Tri-County was struggling to meet the ever-increasing system demands that were a result of the housing boom of the late 1990s and early 2000s.
- As a part of the rapidly developing KC Metro, the founding Members had taken less than 10 years to grow into a Maximum Daily System Demand that had originally been intended to last nearly 30 years (380MG Annual Sales in 1994 to 730MG in 2003)
- Due to its relatively small size (3.1MGD at the time) a major expansion project seemed financially unfeasible.



2005 SRF Project

\$41.6M

- Board of Directors were ready to consider purchasing water from another source.
- Blue Springs and Grain Valley approached Tri-County about participating in an expansion project.
- Collectively, the two cities and the membership of TCWA committed to the funding needed to design and construct a project that would set the course for their water needs until 2024.
- This project included the construction of:



2005 SRF Project

\$41.6M

- A 13MGD Collector Well and the purchase of 500 acres for Well Field Development and Lime Residual Application
- A 6MGD expansion of the Water Treatment Plant, including Aeration, Lime Softening, Filtration, and High Service Pumping Facilities.



2005 SRF Project

\$41.6M

- A 5MG Ground Storage Reservoir,
- A 1.5MG Ground Storage Reservoir
- A 1.5MG Elevated Tank
- Two (2) 10 MGD Booster Pump Stations
- Acquisition of over 150 easements for the installation of 19 miles of 30" Ductile Iron Pipe, 6 miles of 16" Ductile Iron Pipe, and 2 miles of 20" Ductile Iron Pipe.



2005 SRF Project

\$41.6M

- As a part of this project, Tri-County developed its two-tier rate structure.
- Prior to this time, a single “postage stamp” rate was charged to all customers.
- For this project (and future ones as well) the debt service for capacity would be charged proportional to a Member’s benefit. Simply put, if a Member is entitled to 20% of the capacity, they are charged 20% of the charges related to the Debt Service for that asset. This payment follows the amortization schedule and is a fixed cost for the term of the loan.
- The Commodity Portion of the rate structure is based on Total Sales, with everyone paying the same rate for Operating Costs.
- This ensures one Member is not subsidizing another when paying for contracted capacity. This rate structure has worked very effectively for Tri-County over the last 15 years.



2016 SRF Project

\$34.4M

- In 2014, Tri-County once again relied on the SRF Program to fund another 10MGD expansion of the Water Treatment Plant.
- Increased Maximum Daily Capacity to 20.5MGD.
- Blue Springs was prepared to increase their entitlement by an additional 6MGD.
- Other customers committed to an additional 4MGD.
- The project consisted of the following:



2016 SRF Project

\$34.4M

- The construction of three (3) new vertical wells.
- The installation of approximately 10,000 feet of 24" Ductile Iron Pipe from the Jackson Well Field to the Water Treatment Plant.



2016 SRF Project

\$34.4M

The construction of two (2) 5MGD treatment process trains including aeration, softening, recarb, and filtering facilities.



2016 SRF Project

\$34.4M

The construction of a continuous feed lime slaking system.



2016 SRF Project

\$34.4M

The construction of a second chlorine contact basin and 1.2MG Clearwell.



2016 SRF Project

\$34.4M

The installation of three (3) additional 400 HP High Service Pumps for a total of seven (7).



2016 SRF Project

\$34.4M

The construction of Lime Residual Drying Facilities.





2016 SRF Project

\$34.4M

- Lime Drying Facilities are anticipated to help set the standard for the disposal of treatment residuals in the future.
- DNR was very supportive in developing process and including the construction in the project.



Collectively, these projects total over \$78M, all of which has come from the SRF Program. So why does Tri-County turn to the SRF Program to fund major projects?





Obviously, the subsidized interest rates are an attractive reason.

Let's look at the numbers for the most recent project.

Again, the picture has nothing to do with the subject at hand, it's just a late August sunrise over a field of soybeans...



SRF Program (Amounts shown are approximate)

Principal Amount	\$34.4M
Interest Rate	1.13%
Admin. Fees	.5%
Term	20 years
Monthly Payments	\$168,060
Total Interest and Fees	\$5.805M
Total Costs	\$40,205,000



Conventional Debt (Amounts shown are approximate)

Principal Amount	\$34.4M
Interest Rate	4.66%
Admin. Fees	0%
Term	20 Years

Monthly Payment	\$220,000
Total Interest and Fees	\$18.547M
Total Costs	\$52,947,000

\$12.7M would pay for the installation of 16 miles of pipe at \$150 per foot!

\$12.7M would have paid for 37% of Tri-County's last SRF Project!

\$12.7M would pay for all the Power, Labor, and Chemicals needed to produce water at Tri-County for nearly 3 ½ years, or 8,273,804,000 gallons of water!



FOR AN ESTIMATED SAVINGS OF

\$12,742,000

TRI-COUNTY WATER AUTHORITY					
OPERATING BUDGET FOR THE YEAR 2020					
Updated 11-Sep-20 11:35 AM					
CATEGORY AND ITEM	% YTD	2020 ACTUAL	2020 BUDGET	2021 BUDGET	BUDGET COMPARISON 2021 vs 2020 GREATER THAN LESS THAN()
PRE-2005 CAPACITY					
2001 SRF LOAN PAYMENT		\$0 (retired)	\$0	\$0	\$0
2010 BOND PAYMENT	49.7%	\$489,798	\$986,200	\$986,200	\$0
TOTAL PAYMENTS	49.7%	\$489,798	\$986,200	\$986,200	\$0
BUYDOWN CREDITS	55.7%	\$94,251	\$169,278	\$169,278	\$0
DEBT SERVICE COVERAGE	49.7%	\$73,470	\$147,930	\$147,930	\$0
TOTAL REVENUE REQUIRED FOR PRE 2005 DEBT SERVICE	58.0%	\$657,518	\$1,134,130	\$1,134,130	\$0
POST 2005 CAPACITY					
2005 A SRF LOAN	48.7%	\$770,672	\$1,582,937	\$1,582,937	\$0
2005 C SRF LOAN	47.4%	\$383,785	\$809,967	\$809,967	\$0
2015 EERA LOAN	49.7%	\$1,067,852	\$2,147,050	\$2,147,050	\$0
2016 SRF LOAN	42.1%	\$871,035	\$2,069,839	\$2,069,839	\$0
TOTAL PAYMENTS	46.8%	\$3,093,344	\$6,609,793	\$6,609,793	\$0
DEBT SERVICE COVERAGE POST 2005 LOANS	50.0%	\$495,735	\$991,469	\$991,469	(\$0)
TOTAL REVENUE REQUIRED FOR POST 2005 DEBT SERVICE	47.2%	\$3,589,078	\$7,601,262	\$7,601,262	(\$0)
TOTAL REVENUE REQUIRED FOR DEBT SERVICE	48.6%	\$4,246,596	\$8,735,392	\$8,735,392	(\$0)
USE OF FUNDS					
REVENUES (INCLUDES GROSS OF BUYDOWNS)	48.4%	\$ 4,851,082	\$ 14,158,525	\$ 14,158,525	
DEBT SERVICE PAYMENTS	47.2%	\$ 3,583,141	\$ 7,595,993	\$ 7,595,993	
DEPRECIATION AND REPLACEMENT FUND DEPOSIT	50.0%	\$ 96,000	\$ 192,000	\$ 192,000	
BUYDOWN CREDITS	55.7%	\$ 94,246	\$ 169,278	\$ 169,278	
OPERATIONS	40.4%	\$ 2,084,735	\$ 5,166,420	\$ 4,947,805	
NET OF OPERATIONS (AVAILABLE FOR MADS COVERAGE)	96.0%	\$ 992,960	\$ 1,034,834	\$ 1,253,449	
MADS COVERAGE REQUIREMENT	49.0%	\$ 384,779	\$ 784,945	\$ 784,945	\$7,739,184
UNCOMMITTED FUNDS		\$ 608,181	\$ 249,889	\$ 468,504	

- The resulting savings mean lower project costs to the Members, and ultimately to their respective customer bases, helping to ensure a resilient source of high-quality drinking water at the most efficient rates possible.
- Lower financing costs can also allow for larger projects to be constructed, providing an opportunity to address multiple needs under one scope, eliminating redundant costs such as mobilization ,etc.
- Another reason Tri-County continues to utilize the SRF for funding is the familiarity that our consultants (financial advisor, engineering, and bond counsel) all have with the program. This typically provides for a smooth and timely process for submitting Facility Plans, Rate Structure Reviews, and of course Loan Closings. Additionally, it can result in expediting a project when appropriate.
- As with any loan program, there is a significant amount of recordkeeping and regulatory issues to deal with, but the benefits of participation far outweigh the efforts needed for compliance.



- In April of 2012, AWWA released a study that reported water systems in the United States will spend approximately \$1.7 trillion in infrastructure costs through 2050.
- Of that amount, \$918B will be needed to fund replacement projects.
- Smaller and Rural providers will be hit hardest, seeing rate increase from \$300 to \$550 per year.
- How will your system fund its projects?

I believe participating in the SRF Program has also helped to strengthen the relationship between MO DNR and Tri-County Water Authority. Staff members like Jerry Smith, Darleen Groner, and Jeremy Rackers have never been more than a phone call away when we needed assistance. Their detailed knowledge of our projects, and the program, have provided guidance to ensure regulatory compliance. We look forward to working with the FAC to meet the financing challenges that lay in store for our industry in the future.

QUESTIONS?



