

Private Activity Bonds and Financing Water Infrastructure in Texas

Jim Forte¹ and Andrew Shea²

PAB Background and Issues:

Since the early 1950's, the federal government has committed billions of dollars to support local efforts to construct critical water and wastewater treatment facilities. Since 1987, Congress has provided a mix of funding grants and loans for specific projects, as well as loans to the states to support state priorities. A recent United States Environmental Protection Agency (US EPA) analysis, however, has documented a substantial gap between available federal, state and local funding resources in comparison with projected construction needs. Some water industry association estimates indicate a gap of between \$500 billion and more than a trillion dollars in the foreseeable future. US EPA has estimated the funding shortfall for water and wastewater infrastructure needs over the next 20 years to range from \$76 billion to \$534 billion. To address this shortfall, communities will need to increase system revenues through rate increases and look to other financial assistance options, including state and federal funding and tax preferences.

Given this dramatic funding shortfall, the conventional wisdom regarding federal funding of water infrastructure has not lead to a sustainable solution to the challenge, and alternative funding measures must be made available to ensure a reliable public infrastructure capable of meeting public health and ecosystem needs. This whitepaper explores the opportunity to use Private Activity Bonds (PAB's) as an alternative financing mechanism in conjunction with innovative public-private partnerships as one of many solutions to meeting this overall funding shortfall.

What are PAB's and where are they used?

Tax-exempt Private Activity Bonds (PAB's) are a financing tool which allows private sector investment in public projects—the benefits of which are interest rates lower than conventional taxable financing, lower delivered cost of service, and a readily available money supply. PAB's have historically been used by public authorities when several criteria are triggered involving private participation in the activity being financed (long-term operations, industrial water supply, private ownership, etc). Investor owned water utilities (IOU's) in the northern and central states have also been traditional users of PAB's as required by their state-level public utility commissions.

¹ Brazos River Authority

² Poseidon Resources Corporation

PAB's are commonly used by local government for a variety of public purposes: public housing; school loans; airports; recreation and cultural facilities; waste-to-energy facilities; port facilities; airport terminals; and, certain industrial pollution prevention projects (see Figure 1). In the past, PAB's have been used to solve critical infrastructure problems including the solid waste disposal crisis in the 1980's, where the private sector invested over \$20 billion in new waste-to-energy facilities to avoid massive groundwater pollution and reduce the growing number of hazardous waste sites.

Currently, federal tax law imposes state bond caps which limit the ability of local governments to use PAB's as a funding alternative for water and wastewater infrastructure development. The chart in Figure 2 shows the breakdown in the overall level of private activity bonds and highlights the limited availability within the "exempt facilities" category for water projects, industrial development bonds and all other categories. These projects received an allocation of only \$2.1 Billion in 2002 for all states, from a total allocation of \$30.5 billion. Typically, water PAB's average approximately \$250 million per year with the majority used by investor owned utilities.

A look at the historical issuance of water and wastewater PAB's for the last 4 years shows a diversity in locations and project types (See Table A). While the magnitude of the bonding on a per project basis has been relatively small (largely due to availability), the use and public benefit for public water supply projects as well as for wastewater compliance across a number of important states is well noted. The largest water PAB issuance to date has been for the 25 million gallon per day Tampa Bay desalination facility involving both private ownership and then private operations after the public partner, Tampa Bay Water, elected to purchase and own the assets. Under conventional financing, the water authority would not have had the flexibility to maximize its involvement with the competitive elements of the private sector.

Unfettered access to PAB's could give interested communities that wish to employ innovative financing approaches an additional tool to achieve environmental compliance with federal mandates. These arrangements have been demonstrated as an effective response in numerous communities. , A recent example is where private equity and tax-exempt financing reduced construction and operating costs at the wastewater tertiary treatment plant in Cranston, Rhode Island, thereby bringing the plant into compliance with strict Narragansett Bay standards. As such, the use of this tool has minimized the need to raise local water and sewer rates while expediting compliance with federal clean water and drinking water mandates.

Table A: Representative Historical Issuance of Private Activity Bonds (200-2004).

Sale Date	Final Maturity	Issuer	State	Corporate or Institutional Backer	Amount of Issue (\$ mils)	Issue Description	Credit Enhancer	Fitch	S&P Rating	Moody's Long Term Rating
1/31/2003	1/1/2032	Moulton Water Works Board	AL		4.25	Water Revenue Bonds	MBIA	AAA	AAA	Aaa
11/17/2000	11/1/2006	Fayetteville-Arkansas	AR		10 (called)	Water & Sewer Sys Subor Rev Bonds	BK-AMER	NR	A-	NR
8/10/2004	10/1/2020	Garland Co-Arkansas	AR		4	Waterworks & Facs Bd Rev Bonds		NR	NR	NR
10/10/2003	9/1/2022	Connecticut Development Auth	CT	Connecticut Water Co	14.93	Water Facs Refunding Rev Bonds	XLCA	NR	AAA	NR
9/2/2004	7/1/2028	Connecticut Development Auth	CT	Davis Family SODAK LLC	5	Water Facility Ref Rev Bonds				
3/14/2002	3/1/2033	Delaware Economic Dev Auth	DE		17	Water Dev Refunding Rev Bonds	AMBAC	AAA	AAA	Aaa
5/14/2002	10/1/2031	Tampa Bay Water	FL		108.39	Utility Sys Var Rte Revenue Bonds	BK-AMER	AA+	AA	Aaa
8/10/2000	11/1/2020	Lee Co Industrial Dev Authority	FL	Bonita Springs Utilities Inc.	13.2	Utility System Revenue Bonds	FSA	AA	NR	NR
1/14/2000	6/1/2029	Niceville-Florida	FL		1.7	Var Rte Wtr & Swr Rev Bonds	AMBAC#	AAA	AAA	Aaa
3/6/2002	8/1/2041	Texas	TX		25	GO Water Fin Assist Bonds		AA+	AA	Aa1
4/2/2003	8/1/2042	Texas	TX		25	Water Financial Assistance Bonds		AA+	AA	Aa1
2/24/2004	8/1/2043	Texas	TX		25	Water Fin Assistance Bonds		AA+	AA	Aa1
3/25/2002	4/1/2025	Brazos River Authority	TX		13.75	Revenue Refunding Bonds	FGIC	AAA	AAA	Aaa
10/31/2002	8/15/2023	Brazos River Authority	TX		9.635	Water Supply Sys Rev Bonds	AMBAC	AAA	AAA	Aaa
2/22/2000	6/15/2020	Paris-Texas	TX		9.5	Wtr and Swr Sys Rev Bonds	FGIC	AAA	NR	Aaa
4/19/2000	8/1/2026	Upper Trinity Regional Water Dt	TX		6.5	Reg Treated Wtr Sys Revenue Bonds	FGIC	AAA	AAA	Aaa

Tax-Exempt Financing Availability

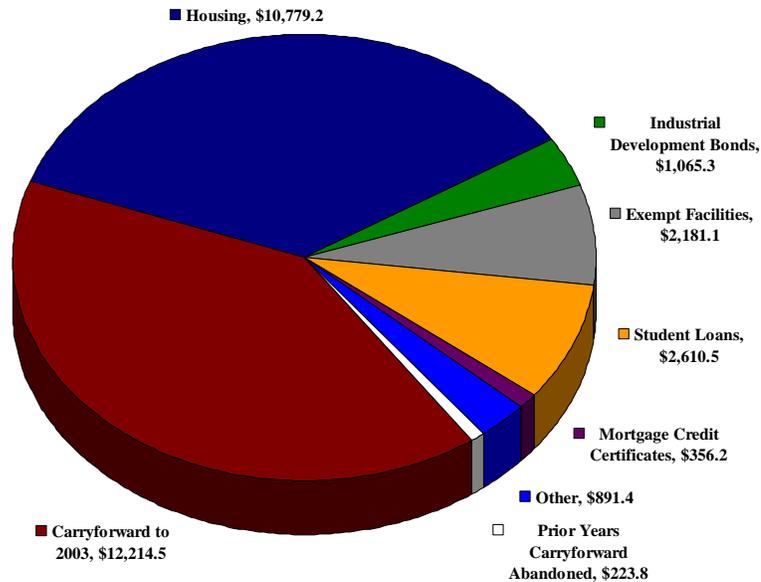
Type of Tax-Exempt Bond	Governmental Purpose Bond Cap Not Required	Private Activity Bond Cap Not Required	Private Activity Bond Cap Required
Ownership	Public	Public	Private
Asset Class			
Public Facilities	✓		
Water/Wastewater	✓		✓
Solid Waste	✓	✓	✓
Airport	✓	✓	
Surface Transportation	✓		
Ports	✓	✓	
Housing	✓		✓
Education	✓		
Healthcare	✓		

LEHMAN BROTHERS

Figure 1

Volume Cap Allocation by Sector

2002 Private Activity Bond Cap Allocation Total Cap Available \$30,514.3 (\$ in Millions)



Source: *The Bond Buyer*

Note: Individual state volume cap allocation for 2002 is the greater of \$75.00 per capita or \$225 million.

LEHMAN BROTHERS

Figure 2

The Importance of PAB's for Texas

Generally, to access tax-exempt financing for water and wastewater projects for entities other than political subdivisions, the Texas Water Development Board (TWDB), or the public entity itself, must submit an application to the Texas Bond Review Board to reserve a portion of the state's private activity volume cap. The application process is governed by a prescribed annual schedule and involves a certain level of administrative tasks. Under the current vehicle for providing tax-exempt financing, water and wastewater projects must compete with other interests for a portion of the private activity volume cap.

The aggregate principal of tax-exempt private activity bonds that may be issued by a state within a calendar year is restricted to an amount calculated pursuant to the Internal Revenue Code, Section 146. This calculated value is referred to as the State ceiling or volume cap, which for the state of Texas in 2004, is \$1.77 Billion. The Private Activity Bond Allocation Program, administered in Texas by the Texas Bond Review Board, regulates the volume cap and monitors the amount of demand for and the use of private activity bonds each year. The total volume cap is allocated among six types of issuers. Up until the 78th Legislative session and the passing of

Senate Bill 1664, the allocation for water projects was a mere \$25 million largely due to the competing needs in housing. Upon Governor Perry's signing of SB 1664, the volume cap in sub-ceiling 2 was raised to \$100 million for water projects.

Benefits to using PAB's in Texas

Use of tax-exempt bonds as a means of financing water and wastewater projects allows the TWDB to offer more affordable interest rates to borrowers. Under Congressional legislation proposed in the 108th Congress as H.R. 3042, H.R. 3410, and S. 1917, certain water and wastewater projects would be eligible for tax-exempt financing without the restrictions and administrative burdens imposed by the private activity volume cap.

The impacts of this federal legislation on the management of water and wastewater in Texas are considerable. Under the current private activity volume cap process, TWDB is required to estimate the need for a reservation of private activity volume cap, based on a timeframe established by the Texas Bond Review Board. Generally, the estimated reservation need can only be revised on an annual basis. As a result, projects that arise during the year that address more urgent water and wastewater needs might not be eligible for tax-exempt financing until the next reservation is sought.

In Texas, for example, numerous smaller systems are built, operated, and maintained by water supply and sewer service corporations (WSCs), which are eligible for tax-exempt financing only through the private activity volume cap.³ In the last few years, it has not been uncommon for a rural community to experience severe water management issues as a result of drought. If such a community's water system was operated by a WSC, it may not be able to access tax-exempt financing to address infrastructure or system needs because its emergency situation did not coincide with the cycle of private activity volume cap distributions. This could increase financing costs for the entity and needlessly result in more adverse impact on what may already be a catastrophic event. Under the proposed federal legislation, this type of situation would not occur.

By allowing more flexibility in leveraging the private sector for developing, financing, owning, and operating water and wastewater infrastructure, PAB's can also transfer project risk from the public sector to the private sector. Figure 3 identifies critical areas in the lifecycle of a project where a public authority might cost effectively and cost efficiently delegate responsibility and management to the private sector under a public-private partnership without violating IRS guidelines governing tax-exempt financing so long as the public entity has access to PAB's.

³ Rural nonprofit water supply corporations, but not for the fact that they are corporations, have every other characteristic of a municipal water supply. The same can be said of private for-profit water supply corporations, with the exception that they can make a regulated profit. All of these entities are regulated at the state and federal level to ensure quality water supply.

Private Partner Risk Assumption /Return Profile as a Function of Tax-Exempt Bond Structure

<i>Private Partner Risk Assumption/Return Profile</i>	<i>Governmental Purpose Bonds</i>	<i>Private Activity Bonds</i>
Proposal Costs	Yes	Yes
Negotiation and Development Costs	Yes	Yes
Fixed Construction Costs	Possible	Yes
Technology/Performance Risk	Possible	Yes
Fixed Operating Costs	Possible	Yes
Fixed Subordinate Debt Return	Possible	Yes
Debt Guarantee	Possible for limited amount typically subordinated	Yes
Equity Investment with upside	No	Yes
Residual Value	No	Yes

LEHMAN BROTHERS

Figure 3

Predictability is another key advantage offered by the provisions of proposed changes. Under the current private activity volume cap system, water and wastewater projects are not guaranteed a portion of the cap. As a result, an entity that is not a political subdivision would be required to plan water or wastewater projects based on both taxable bond rates and private activity bond rates. The differential impact on water rates could be significant. According to TWDB estimates, a tax-exempt bond issue in conjunction with a public-private partnership structure could save up to 30% in financing and capital costs for a community's water or wastewater project. The difference could make or break the feasibility of a project. Under proposed provisions, a water or wastewater project would be more predictably evaluated based on tax-exempt rates.

The proposed federal legislation is critical to Texas in providing another form of affordable financing to help address the most basic and important needs in the State of Texas – water and water quality. According to the Texas state water plan, *Water for Texas – 2002*, the cost of water supply acquisition projects is approximately \$17.9 billion through 2050. Needs for water and wastewater treatment, flood control and internal community infrastructure costs will raise the amount for this time period to \$108.6 billion. By providing interest rate relief and leveraging the

benefits of public-private partnerships, the PAB initiative could provide substantial financial cost savings for these important projects.

The Importance of PAB's to the Brazos River Authority

As part of its commitment to serve its current and future customers with an affordable and reliable supply of river and treated water, the Brazos River Authority (BRA) has supported state and federal legislation to exempt water infrastructure from private activity bond (PAB) restrictions at the federal level. The BRA's Board of Directors adopted a resolution on April 11, 2003, in support of efforts at the state and federal level to exempt water and wastewater infrastructure from PAB limitations, thereby providing a valuable tool for financing much needed water and wastewater infrastructure.

Public-private partnerships have helped create the significant water supply system that BRA and its customers now rely on. Similarly, the federal exemption can reduce costs of future projects; reduce costs and administration for existing BRA facilities; and allow BRA to complete projects when appropriate and without waiting as long as two to three years on the availability of PAB's under the state lottery allocations. A prime example of the potential benefits of the federal exemption can be seen in the proposed development of a seawater desalination facility in Freeport. This project is expected to serve treated water customers in rapidly growing Fort Bend and Brazoria counties through a partnership with Poseidon Resources Corporation and The Dow Chemical Company.

In addition to future planned projects, Brazos River Authority's current facilities are also adversely impacted by the current PAB rules. The BRA's three major reservoirs; Possum Kingdom Lake, Lake Granbury and Lake Limestone, fail the existing IRS rules for tax exempt financing. Construction of two of these reservoirs serving the public would not have been economically feasible had it not been for participation with the private sector, or reliance on the private sector as a significant customer of those water supplies.

The population growth in Texas means that water supplies will become increasingly critical to providing public drinking water sources. Despite the public need and use, the BRA has been required to submit its repair and rehabilitation projects on these reservoirs to the over-subscribed state lottery system to qualify for tax exempt financing on the debt for these large capital projects.

Where do we go from here?

As the 108th Congress draws to a close, the State of Texas must consider reformulating a strategy to remove the federally imposed state bond caps. The revenue loss impact to the US Treasury for proposed water PAB legislation was determined to be a mere \$147 million over a 10 year analytical period.

The Texas Congressional Delegation should be briefed on the critical nature of Texas' water infrastructure needs and the added benefit of stimulated investment should those projects be initiated. Not only will Texas benefit from greater economic stability and increased

environmental compliance, but the construction activity will result in higher levels of employment in the state.

The authors would like to recognize the contributions of Dave Mitamura, Federal Affairs Director for the Texas Water Development Board (Dave.Mitamura@twdb.state.tx.us) as well as Steve Howard, Senior Vice President for Lehman Brothers (SHoward@Lehman.com) for their insights and collective wisdom on this important initiative.

Private Activity Bonds

Issue and Background

In recent years, the need for alternative financing tools to address water and wastewater needs has increased due to rapidly growing costs. According to the Congressional Budget Office, over the next 20 years, U.S. water utilities will have to invest between \$492 billion and \$820 billion to replace aging water infrastructure. Additional needs due to security concerns and new standards, such as acceptable arsenic levels, are only going to exacerbate the problem.

While traditional methods for financing these projects are available, the growing magnitude of the problem dictates that public officials seek out a wider range of solutions including financing tools that encourage private-public partnerships. These partnerships allow development of more cost-effective projects while minimizing risk to the ratepayers.

Unfortunately, under the current federally mandated State Volume Cap restrictions for private activity bonds, less politically attractive long-term water and wastewater infrastructure needs are not being met. In most cases, states have allocated only a small fraction of their volume cap to such water infrastructure needs, with the vast majority going to education and housing. In a number of key states, such as California, no PABs have been authorized for water and wastewater infrastructure in recent years. By discouraging innovations in financing, current policy places a greater burden on limited local, state and federal government resources to provide direct funding for infrastructure.

Principles for Private Activity Bond Legislation

H.R. 3410, introduced by Congressman Clay Shaw (R-FL) and Congressman Jim Davis (D-FL), would bring water and wastewater out from under the State Volume Caps. This legislation, if passed, would unleash untapped resources to meet the emerging water infrastructure needs of the United States.

This change in the tax code would cost the Federal Government very little money (\$41 million over 5 years, \$147 million over ten), yet leverage perhaps billions of dollars in private capital to address the infrastructure financing challenge.

Bringing water and wastewater projects out from under the State Volume Caps will result in lower cost financing that is passed on to ratepayers, will encourage private sector partnerships to spread risk and encourage innovation, and will relieve all levels of government from the need to fund these much needed investments.

Source: National Association of Water Companies

TAX EXEMPT FINANCING OF WATER AND WASTE WATER FACILITIES

REQUESTED LEGISLATIVE CHANGE: Remove the state bond volume cap for use of tax exempt financing for public-purpose water and wastewater facilities (Joint Tax Committee estimated revenue loss: \$41 million over 5 years; \$147 over 10 years)

THE PROBLEM TO BE ADDRESSED: The need for alternative finance tools to address water and wastewater needs has grown due to rapidly growing costs. According to the Congressional Budget Office, over the next 20 years, U.S. water utilities will have to investment between \$492 billion and \$820 billion to replace aging water infrastructure. Additional needs due to security concerns and new standards, such as acceptable arsenic levels are only going to exacerbate the problem.

ARGUMENTS FOR CHANGE: While traditional methods for financing these projects are available, the growing magnitude of the problem dictates that public officials seek out a wider range of solutions including financing tools that encourage private-public partnerships. These partnerships allow development of water supply projects using non-recourse financing while minimizing project risk to the ratepayers.

Unfortunately, under the current volume cap restrictions for private activity bonds, less politically attractive long-term water and wastewater infrastructure needs are not being met. In most cases, states have allocated only a small fraction of their volume cap to such infrastructure needs, with the vast majority going to education and housing. In a number of key states, such as California, no PABs have been authorized for water and wastewater infrastructure in recent years. By discouraging innovations in project financing, current policy places a greater burden on limited local, state and federal government resources to provide direct funding for infrastructure.

If Congress takes the private activity bonds for water and wastewater infrastructure outside the state volume cap, the financing tool would unleash untapped resources to meet this emerging crisis. In the 1990s, policymakers were able to avert a similar crisis in the solid waste management field by removing solid waste facilities from the cap, resulting in the generation of over \$20 billion in financing.

Lifting the state volume cap for water and wastewater infrastructure will result in lower cost financing that is passed on to ratepayers and will encourage voluntary public private sector partnerships to encourage innovation.



OFFICE OF THE GOVERNOR

October 8, 2003

RICK PERRY
GOVERNOR

The Honorable Joe L. Barton
U.S. Representative
U.S. House of Representatives
2109 Rayburn House Office Building
Washington, DC 20515

Dear Congressman Barton:

I write to urge you to cosponsor HR 3042 as introduced by Representatives Brady, Sandlin, Green, Hinojosa, Sessions, Carter and Granger. The legislation would eliminate federal caps on private activity bonds used for water and wastewater and clean air infrastructure projects.

Private activity bonds are tax free to investors; however, there are provisions in the federal tax code limiting use of these bonds and capping the monetary amount of the bonds that can be issued in a given state. Texas' cap is currently approximately \$1.6 billion per year.

The cap on private activity bonds forces water and wastewater and clean air infrastructure projects to compete with other projects in Texas without regard to the urgent public priorities of protecting public health, protecting the environment and ensuring adequate water supplies. There is precedent in calling for the removal of the cap based on public need. The Tax Code has been amended to permit the unrestricted use of tax-exempt financing for private company waste-to-energy facilities, airport terminals, and wharves due to public need for that infrastructure.

According to a report by the Texas Water Development Board, \$18 billion are needed to meet Texas' water and wastewater infrastructure needs over the next 50 years. For Texas to prosper, we must use innovative financing and technologies that conserve existing sources and tap new sources of water, such as ocean water. I believe desalination of ocean water is one step Texas should take to meet our future water needs. Removal of the volume cap on private activity bonds for water and wastewater infrastructure will provide another tool to finance these projects.

Please review the legislation and consider signing on as a cosponsor. If you need further information, please contact Duane Taylor in the Texas Office of State-Federal Relations at 202/638-3927.

Thank you, and I look forward to working with you on this important issue.

Sincerely,

A handwritten signature in cursive script that reads "Rick Perry".

Rick Perry
Governor

RP:tgp