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# Borrowing for the Big Stuff:

## TYPES OF WATER DEBT IN NORTH CAROLINA

By Jeff Hughes and Sean Hughes, Environmental Finance Center at the UNC School of Government

**T**here is no denying the magnitude of North Carolina's water infrastructure needs. Different studies following different methodologies

have come up with different numbers, but all of them are big -- in the eleven figure range. There is much debate about how utilities throughout the state will pay for this infrastructure. While state and federal grants play an important role for many utilities, if past trends continue the majority of the new and rehabilitated facilities will be funded using debt that will ultimately be paid off by user fees. For obvious reasons, many utilities would prefer federal or state grants over loans, but even federal and state assistance has begun to come in the form of loans instead of outright grants. For example, even though the recently passed American Recovery and Reinvestment Act (the Stimulus) has significant grants, the majority of the funds will go out in highly subsidized loans.

Utility debt comes in many shapes and sizes ranging from \$100 million dollar Wall Street bond issues to \$40,000 vehicle loans from community banks. According to data from the Department of the State Treasurer, as of June 30, 2009, North Carolina local

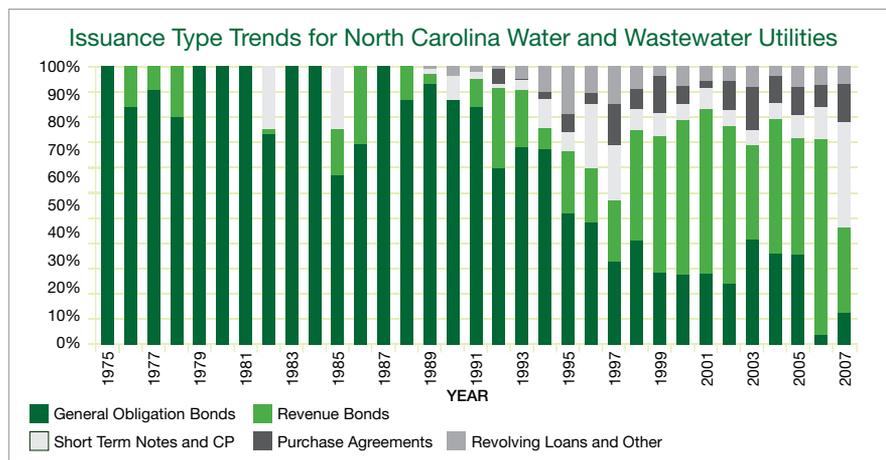
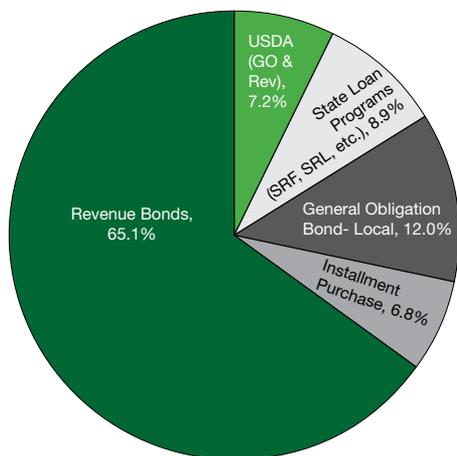
governments (cities, counties, sanitary districts, water and sewer authorities etc.) had approximately 7 billion in outstanding water and wastewater debt.

Debt can be categorized based on how it is collateralized (securitized) or by the type of entity that issues the debt or by the method in which it is issued. At one time, the preferred method of securitizing large water debt issues was to use the full faith and credit of the population served by the project. This method of securitization results in "general obligation" debt -- a type of debt that requires a majority vote in a bond referendum. General obligation debt is often sold as general obligation bonds on the commercial market, but it also is the primary form of securitization that the US Department of Agriculture's Rural Development Water and Wastewater Loan program uses.

Over time, many utilities that relied on general obligation debt have begun to turn increasingly to revenue bonds in which the security behind the debt consists of the utilities' legal authority to raise rates. In other words, utilities issuing revenue bonds pledge their rate setting authority and utilities issuing general obligation debt pledge their tax raising authority. Almost all general obligation

debt is retired by water and sewer revenue regardless of how it is securitized. General Obligation debt and revenue backed debt can be complicated to issue and many smaller utilities with smaller projects turn to simpler forms of debt. Utilities are allowed to pledge their assets as security for loans just as homeowners pledge their house as collateral for their mortgages. This type of debt most often comes in the form of what is known as "installment purchase" and has been an important source of debt for smaller utilities over the last 10 years. Lenders certainly do not want to take over water and sewer assets and they have become comfortable with these loans because they assume, so far correctly, that utilities would do everything possible (raise taxes, raise rates etc.) to make sure that a lender was never even close to taking over the water tank, water treatment plant, main downtown sewer line etc.

Most water and wastewater debt is issued as long term debt with terms between 10 to 40 years. Figure 1 shows a breakdown of outstanding long term local government water and wastewater debt. The vast majority of outstanding debt is now in the form of revenue backed debt with 65.1% outstanding as revenue bonds and 8.9% outstanding



as state revolving fund debt which is also normally loaned in the form of a revenue backed agreement. The health of this type of debt now and in the future depends on effective rate setting.

The use of short term bridging debt has become an important part of the debt market. Utilities that rely on long term USDA RD debt cannot access their funds until construction is complete requiring that they seek short term debt during construction. Some utilities such as Charlotte Mecklenburg Utilities that rely on large revenue bond issuances have found that they can save significant amounts of money by using short term debt, usually issued at lower interest rates to fund their capital to a certain level and then pay off the short term debt using long term revenue bonds. The debt crisis over the last few years have impacted access to short term unsecured capital and have led some utilities to rethink their use of commercial paper. There are many variations of debt policies and adventurous utility financial officers can slice and dice types of debt to suit their needs, although even the most creative water and wastewater financing falls well short of the type of complicated

structured finance behind many of our current international debt problems. In North Carolina the State Treasurer's Local Government Division, also referred to as the Local Government Commission, must approve almost all water and wastewater debt. This oversight has resulted in widespread recognition that North Carolina's local government debt capacity and reliability are among the best, if not the best, in the country.

As mentioned earlier, public infrastructure funding assistance has increasingly taken the form of subsidized debts. The State of North Carolina's state drinking water (DWSRF) and clean water (CWSRF) and the federal government's USDA RD water/wastewater loan program are two of the biggest water lenders operating in the state with outstanding balances of close to a Billion Dollars between them. Many believe the decision to inject the stimulus funds through these loan programs is indicative that future federal infrastructure funds will focus primarily on subsidized loans rather than outright grants.

An examination of North Carolina Water and Wastewater Utilities' total debt issuance trends reveals a shrinking portion of general

obligation bonds after the early revenue bonds have stepped in to take a larger share, making up 70% of issued new debt in 2006. Issuances of installment purchase agreements had generally stayed above 10% of issuances since 2001.

Historically, almost all debt issued for water and wastewater systems in North Carolina was tax exempt debt leading to very favorable interest rates for utilities. The American Recovery and Reinvestment Act created new types of debt including some debt that is taxable but that provides utilities with other methods of subsidization including direct interest subsidy payments from the US treasury. While these new debt instruments including Build American Bonds (BABs) are beginning to be used in North Carolina, it is still unclear how prevalent they will become and whether authority for their use will be extended beyond ARRA deadlines. While these new types of debt provide interesting options for utilities to consider, none of these new options change the fact that sustainable debt access and management requires sustainable revenue streams and that means having sound water and sewer rates. [NC](#)



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to return to Table of Contents