

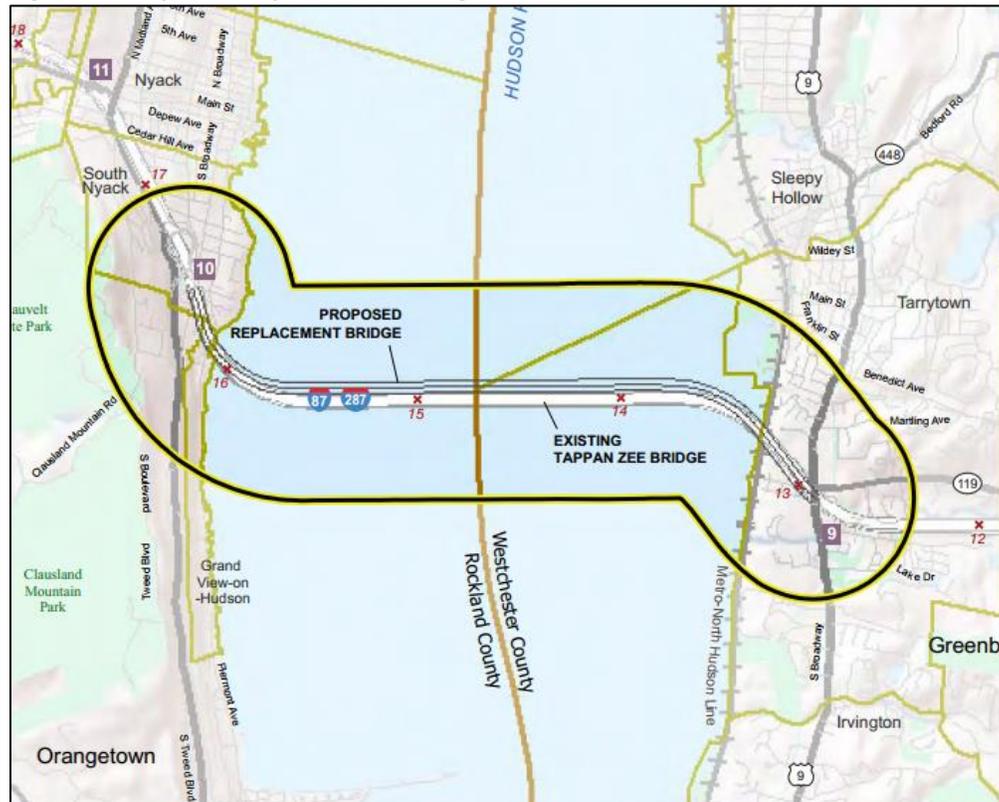
Case Study: Using Environmental Clean-Up Funds to Replace the Tappan Zee Bridge
By Steven Cohen and Hayley Martinez
July 2014

The Issue

The New York State Environmental Facilities Corporation (EFC), a public benefit corporation that provides low-cost capital and technical assistance for environmental projects around the state, approved a \$511 million loan to the state Thruway Authority for bridge-related projects, specifically the replacement of the Tappan Zee Bridge across the Hudson River. The Corporation approved the loan – half with no interest, and half with an interest rate of less than 4 percent – in late June 2014. The loan decision then went to the Public Authorities Control Board, which approved half of that amount – \$256 million – in July 2014.

However, a number of environmental organizations oppose the decision because funds are coming primarily from the Clean Water State Revolving Fund, a federally backed fund that is typically utilized to finance local sewer projects. Critics warn that the decision to use funds intended for water quality for another purpose could set a bad precedent, potentially nationally if it is copied by lawmakers in other states.

Figure 1: Proposed Replacement Bridge



Source: Tappan Zee Hudson River Crossing Project Scoping Information Packet, Federal Highway Administration, October 2011, page 30.

Background: Environmental Facilities Corporation & the Clean Water State Revolving Fund

The New York State Environmental Facilities Corporation (EFC) is a public benefit corporation that administers and finances environmental projects in New York State. The group provides low-cost capital and technical assistance for these projects for municipalities, non-profits, and small businesses, and helps these entities comply with federal and state environmental protection requirements and promote innovative technologies.¹ Since 1990, the Corporation has provided over \$17 billion in financing and grants for over 2,000 water and sewer infrastructure projects across New York State.

The Environmental Facilities Corporation runs eight different programs to administer funds, including the Clean Water State Revolving Fund (CWSRF), which was established under the Federal Water Quality Act Amendments of 1987. The CWSRF is the nation's largest water quality financing source; and in New York State it is administered jointly by the Environmental Facilities Corporation and the New York State Department of Environmental Conservation. The CWSRF program runs like an environmental infrastructure bank; funds are loaned to communities and repayments are recycled back into the program to fund additional water quality projects. According to the EPA, "states have the flexibility to target resources to their particular environmental needs, including contaminated runoff from urban and agricultural areas, wetlands restoration, groundwater protection, brownfields remediation, estuary management, and wastewater treatment."² The EPA also acknowledges that certain "nontraditional" water quality projects may be financed, if the state sets an "integrated planning and priority setting system," although the federal government does not define the components of such a plan.³

Background: The Tappan Zee Bridge

The existing Tappan Zee Bridge opened to traffic in 1955, connects Rockland and Westchester counties over the Hudson River (via the New York Thruway) and is owned by the New York State Thruway Authority. The bridge cost \$80.8 million to build (equivalent to about \$550 million today), and was built to last about 50 years. Between 1990 and 2010, traffic volume on the bridge grew by 30 percent, and the bridge serves as a major freight route. However, a report by the Federal Highway Administration noted that the bridge does not meet current standards for design, engineering or traffic operations, and lacks the structural and operational redundancy to handle extreme events such as hurricanes, earthquakes, fires, or vessel collisions.⁴ The bridge also does not meet state requirements for essential characteristics such as lane and shoulder widths.

The bridge has undergone a number of upgrades over the years. In the late 1980s, the bridge toll plaza and several lanes underwent reconstruction at a cost of \$26 million, sponsored by the State Transportation Authority.⁵ In the 1990s, a movable barrier system was also implemented to allow availability of an extra lane to respond to heavy traffic. Major projects began in 2007 to replace about

¹ New York State Environmental Facilities Corporation. "About Us." Accessed July 16, 2014.

<http://www.efc.ny.gov/Default.aspx?tabid=81>

² US Environmental Protection Agency. "How the CWSRF Program Works." Last updated March 11, 2014.

http://water.epa.gov/grants_funding/cwsrf/basics.cfm.

³ US Environmental Protection Agency. "Clean Water State Revolving Fund Program." Accessed July 16, 2014.

http://water.epa.gov/grants_funding/cwsrf/upload/2002_06_28_cwfinance_cwsrf_ispseval.pdf

⁴ Federal Highway Administration. "Tappan Zee Hudson River Crossing Project Scoping Information Packet." October 2011. Sponsored by the NY State Department of Transportation and NY State Thruway Authority.

⁵ Hudson, Edward. "Plans Outlined to Alleviate Delays During Roadwork." *New York Times*. June 2, 1985.

<http://www.nytimes.com/1985/06/02/nyregion/plans-outlined-to-alleviate-delays-during-roadwork.html>

96% of the original concrete roadway deck, at a cost of about \$147 million.⁶ In total, from its original construction until 2011, the Thruway spent approximately \$660 million for various capital construction projects on the bridge.⁷ Funding for repairs of the Tappan Zee has come from a number of sources over the years, including transportation bonds issued in the 1980s.⁸

Prior to the decision to replace the bridge, the state estimated that \$1.3 billion would be needed over the next decade to keep the bridge in a condition of good repair.⁹ Selling the bridge to private companies was suggested as an alternative, but would require a number of legislative changes that were rejected in 2005.¹⁰ Other alternatives were considered, but a review by the Federal Highway Administration recommended replacing the bridge.

Funding the New NY Bridge

Planning for the replacement bridge – the New NY Bridge – began as early as 1999, but didn't move into construction phase until 2011, when new design-build legislation was passed.¹¹ Total cost of the New NY Bridge Project, a twin span bridge adjacent to where Tappan Zee stands currently, is projected to be \$3.9 billion, with the first portion to open in 2016 and the whole project to be completed by 2018. The new bridge will be constructed to last 100 years without major structural maintenance.

In December 2013 a \$1.6 billion loan was approved for the bridge, through the federal government's Transportation Infrastructure Finance and Innovation Act program, with a low 3.89 percent interest rate. A speedier federal permitting process allowed the review to be completed in one and a half years instead of the usual three to five.¹² The majority of the project will be funded by bonds that will be retired by tolls, but there is no final financial plan for funding the bridge. Tolls have been kept low on the Tappan Zee at \$5, but some analysts estimate that debt service on the new bridge could add more than \$6 to the current toll.¹³ Furthermore, the \$3.9 billion for the total project doesn't include the interest on the bonds, nor does it include the costs of putting together the proposed bus system for the bridge. In questioning the finances of the project, State Senator John DeFrancisco (R-Syracuse), chairman of the Senate Finance Committee, asked New York State Thruway Authority's executive director: "Let's suppose that whenever they start they come up with some numbers that say there's no way the tolls are going to cover the debt service. Do you stop building the bridge?" The response was: "tolls will be sufficient."¹⁴

⁶ Pollack, Michael. "Quickie Rentals." *New York Times*. June 25, 2011. Accessed July 17, 2014. <http://www.nytimes.com/2011/06/26/nyregion/answers-to-questions-about-new-york.html>.

⁷ Pollack, 2011.

⁸ Faber, Harold. "Archives." *New York Times*. July 9, 1990. <http://www.nytimes.com/1990/07/09/nyregion/151490.html>

⁹ Federal Highway Administration, 2011.

¹⁰ McGeehan, Patrick. "A Bridge That Has Nowhere Left to Go." *New York Times*. January 17, 2006. <http://www.nytimes.com/2006/01/17/nyregion/17tappan.html?pagewanted=all&r=1&>

¹¹ New York State. "The New NY Bridge." Accessed July 16, 2014. <http://www.newnybridge.com/about/index.html>

¹² Dazio, Stefanie and Scott Fallon. "Obama, at Tappan Zee Bridge, urges Congress to OK funding for transportation projects." *NorthJersey.com*. May 14, 2014. <http://www.northjersey.com/news/obama-at-tappan-zee-bridge-urges-congress-to-ok-funding-for-transportation-projects-video-1.1015915>

¹³ Berger, Joseph. "As New Tappan Zee Bridge Goes Up (Along With Tolls), Funding Questions Remain." *New York Times*. March 25, 2014. <http://www.nytimes.com/2014/07/17/nyregion/new-york-state-board-approves-reduced-256-million-loan-for-tappan-zee-project.html?r=1>

¹⁴ Berger, 2014.

In June 2014, the Environmental Facilities Corporation approved a zero-interest and low-interest loan to the New York State Thruway Authority totaling \$511.45 million, financed through the Clean Water State Revolving Fund, for “environmental protection and Hudson River restoration projects related to the New NY Bridge project to replace the Tappan Zee.”¹⁵ The proposed loan generated significant opposition from environmental groups, and questioning from the U.S. EPA. The EPA and these environmental groups questioned the legality of using the environmental loan fund for transportation infrastructure. They also raised concerns about the unusually rapid approval process. The loan then went to the vote of the state Public Authorities Control Board, which approved half of the amount that was approved by the Environmental Facilities Corporation. The Public Authorities Control Board authorized a \$255.7 million, five year, no-interest loan (specifically for projects that were already undertaken or that plan to be undertaken before the end of the federal fiscal year).^{16,17}

Justification from the State

In responding to criticism of the loan approval, New York State released a statement saying that this loan would help fund costs associated with environmental measures put in place during bridge construction, such as wildlife and estuary protection and environmental impact mitigation measures. Some of these projects include:¹⁸

- Restoration of Piermont Marsh
- River bottom armoring
- Stormwater treatment at landings
- Dredging and mound removal
- Dredge material disposal
- Shared use path for pedestrians and bicycles
- Endangered Peregrine Falcon nest box relocation
- Gay’s Point channel restoration

The state claimed that the loan would have no impact on funding for other water projects elsewhere in the state and that these types of projects are authorized under state and federal law, including the Clean Water Act. The laws governing the Clean Water State Revolving Fund authorize assistance for:

- Point Source Projects (Clean Water Act Section 212);
- Projects which assist in the implementation of the state’s Non-Point Source Management Plan (Clean Water Act Section 319);
- Projects which assist in the development and implementation of a U.S. EPA Approved National Estuary Comprehensive Conservation and Management Plan (CCMP) (Clean Water Act Section 320).¹⁹

The vehicular roadway for the bridge as well as the foundation and structures supporting the road are not eligible and according to the state are not being financed by this particular fund.

¹⁵ New NY Bridge. “Fact Sheet.” Accessed July 16, 2014. <http://www.newnybridge.com/documents/efc-loan-fact-sheet.pdf>

¹⁶ Associated Press. “NY board approves \$256M Tappan Zee Bridge loan.” *Wall Street Journal*. July 16, 2014.

<http://online.wsj.com/article/APe884ac37369440d4ac0dab6c740e1fc9.html>

¹⁷ Berger, 2014.

¹⁸ New NY Bridge, 2014.

¹⁹ New NY Bridge, 2014.

According to the New York State government, the loan would help save money compared to using traditional Thruway bonds, and ultimately keep tolls as low as possible.²⁰ This is the largest series of estuary protection and enhancement projects in the nation ever financed by the Clean Water State Revolving Fund. According to the New NY Bridge website, “Never in the 25-year history of the CWSRF have projects of this magnitude been undertaken to benefit a federally designated Estuary of National Significance.”²¹ The funds would be provided to the Thruway Authority in the form of low-interest loans. By using loans instead of bonds, the state expects to save \$17 million of final project costs.²²

Opposition to the Loan

A number of environmental groups questioned the legality of the NY Bridge loan. Despite the Cuomo administration citing evidence of legality and authority for this loan, “environmental advocates have threatened to sue if the plan is approved, saying funds set aside for drinking water, sewage and other water projects shouldn’t be used on a bridge project. They have also said the plan was rushed through without public input or scrutiny.”²³

The EPA called it an “unconventional” use of funds and pointed out that one of the dredging-related projects laid out in the plan would in fact harm a riverbed habitat. EPA Region II Administrator Judith Enck stated in July 2014 that the state should have had a more robust discussion with federal regulators before approving the loan.²⁴ Critics point out that most of the expenses covered in the loan are for non-environmental initiatives. Under the plan, the loans would cover: “the removal of the existing bridge (\$65 million); costs related to dredging (\$140 million) and the bridge’s pedestrian and bicycle path (\$67 million). The more purely environmental work is far less expensive, including ecosystem restoration (\$2.4 million); stormwater treatment (\$14.4 million); sturgeon noise protection (\$48,000); sturgeon conservation studies (\$2.8 million) and relocation of the falcon nest (\$100,000).”²⁵

Prior to approval from the Public Authorities Control Board, eleven environmental organizations including Citizens Campaign for the Environment, Food and Water Watch, Natural Resources Defense Council, and the New York Public Interest Research Group, requested that this loan be rejected. They stated in a letter to voting member and state budget director Robert Menga that the projects are not appropriate for Clean Water State Revolving Fund support, that this loan was included on the 2014 CWSRF Intended Use Plan in a way that bypassed public notice, and that the Corporation failed to provide the appropriate application documents which is in violation of an operating agreement with the EPA.²⁶

Paul Gallay, president of the environmental group, Hudson Riverkeeper, states: “The fact that they're taking (from a) Clean Water Act fund that has never been used in this way and going through all these somersaults to try to justify it clearly shows that they are desperate for funding for the Tappan Zee

²⁰ New NY Bridge, 2014.

²¹ New NY Bridge, 2014.

²² CBS New York/AP. “State Board Green-Lights Tappan Zee Bridge Funding Plan.” June 26, 2014.

<http://newyork.cbslocal.com/2014/06/26/state-board-green-lights-tappan-zee-bridge-funding-plan/>

²³ CBS New York/AP, 2014.

²⁴ Campbell, Jon. “EPA gives Tappan Zee Bridge loan ‘very careful review.’” *Lohud*. July 20, 2014.

<http://www.lohud.com/story/news/politics/albany-watch/2014/07/20/epa-official-feds-performing-careful-review-tappan-zee-bridge-loan/12928211/>

²⁵ CBS New York/AP, 2014.

²⁶ Letter to Robert Menga, Chairman, Public Authorities Control Board. July 9, 2014. <http://www.streetsblog.org/wp-content/uploads/2014/07/Groups-to-PACB-re-CW-Raid-7.10.14.pdf>

Bridge.”²⁷ Others from the New York State Assembly Committee on Corporations, Authorities and Commissions, the New York State Caucus of Environmental Legislators, and New York League of Conservations Voters have voiced similar concerns. They all question the legality of this decision considering how quickly this proposal has moved when there are still a number of unanswered questions and no detailed financial plan. Christopher Goekin of the NY League of Conservation Voters states: “This is federal money. I had spoken with some members of Congress about this and they are concerned about the precedent that this would set in other states. Maybe other states looking to build a causeway or a bridge intended for automobiles. They would love to get their hands on this big pot of money and spend it in ways not intended under current law.”²⁸

Other Considerations

The issue surrounding this bridge replacement is not unique; nearly 67,000 bridges nationwide are considered structurally deficient. Federal highway aid has fallen considerably over the years, and bridges and roads across the country are in dire need of upgrade and repair. “A majority of the nation’s bridges are at least four decades old, with many built during the 1950s and 60s. Since then, most areas experienced rapid growth, and along with it came more traffic than bridges were originally designed to accommodate. At the same time, some states went for long stretches without making major investments in bridge maintenance or repairs.”²⁹

The Highway Trust Fund, which is funded by a gasoline tax and usually shoulders costs for things like fixing potholes and strengthening bridges, is nearing bankruptcy.³⁰ Some argue that because bond issues are contracted for a specific time period based on the project, they are only temporary solutions, and that the state needs to find a better way to pay for new roads and repairs.³¹ Some propose increasing gasoline taxes that provide dedicated money for transportation improvements.³² Other funding options include everything from federal, state, and local city grants, to funds from increases in tolls or other types of taxes, such as mileage-based taxes.³³ Funding sources for these projects can be found in a variety of places; for example, parts of the current round of construction on the Brooklyn Bridge came from the American Recovery and Reinvestment Act (“the stimulus”).³⁴ However, bridge repair or replacement projects have never before been funded by the Clean Water State Revolving Fund.

Senator DeFrancisco, one of the Public Authorities Control Board members who approved this loan, cited the importance of the Tappan Zee Bridge for the state and his belief in the flexibility within the environmental law, despite his initial concerns regarding the lack of a complete financial plan. The EPA plans to undergo a careful review of this loan to determine legality; the EPA does have the authority to

²⁷ Campbell, Jon, 2014.

²⁸ Bradley, Pat. “Critics Express Concerns Over Funding Plan Approved For Tappan Zee Bridge Project.” June 27, 2014. <http://wamc.org/post/critics-express-concerns-over-funding-plan-approved-tappan-zee-bridge-project>

²⁹ Maciag, Mike. “States with Worst Bridges Face Uphill Battle Making Repairs.” *Governing the States and Localities*. May 28, 2013. <http://www.governing.com/blogs/by-the-numbers/gov-states-with-worst-bridges-face-battle.html>

³⁰ Nixon, Ron. “Agreement on Interstate Repair needs, but Not on How to Pay for Them.” *New York Times*. April 3, 2014. <http://www.nytimes.com/2014/04/04/us/agreement-on-interstate-repair-needs-but-not-on-how-to-pay-for-them.html>

³¹ Kolbert, Elizabeth. “New York’s Proposal On Road Bonds.” *New York Times*. November 6, 1988. <http://www.nytimes.com/1988/11/06/nyregion/new-york-s-proposal-on-road-bonds.html>.

³² Faber, Harold. “Albany, July 6.” *New York Times*. July 9, 1990. <http://www.nytimes.com/1990/07/09/nyregion/151490.html>.

³³ Cipriano, Michael. “Congressman Wants Gas Tax Replaced by Mileage Fee.” July 11, 2014. http://www.realclearpolitics.com/articles/2014/07/11/congressman_wants_gas_tax_replaced_by_mileage_fee_123292.html

³⁴ Brooklyn Bridge.” New York Department of Transportation. Accessed July 17, 2014. <http://www.nyc.gov/html/dot/html/infrastructure/brooklyn-bridge.shtml>.

disallow the loan or cut future aid.³⁵ Unfortunately such an action may serve to punish municipalities that require real and much-needed sewage plant upgrades in the future. According to New York League of Conservation Voters President Marcia Bystry: “It is simply not true to say that the \$255 million loan is ‘environmental’ funding, when the vast majority of that sum is for bridge construction and related work... clean-water loans are meant for clean-water projects — not for a bridge — and today’s vote could set a dangerous precedent that will inspire states around the country to start diverting clean-water dollars.”³⁶

³⁵ Campbell, 2014.

³⁶ Miller, Stephen. “State Panel OKs \$255 Million Clean Water Raid for Tappan Zee Bridge.” *Streets Blog NYC*. July 16, 2014. <http://www.streetsblog.org/category/landmarks/tappan-zee-bridge/>