



CREATIVE SOLUTION TO A COMMON CHALLENGE:
Enhancing Transparency for Borrowers and the Community

Vermont Bond Bank

Creating the Vermont State Revolving Fund Loan Database



About the Vermont Bond Bank

More than 50 years ago, the Vermont General Assembly established the Vermont Bond Bank to provide loans for local infrastructure projects, following a period of facilities construction across the state when the ability to secure long-term debt financing was at risk. Today the Bond Bank's loan programs affect the daily lives of Vermonters across the state by financing the classrooms, roads, and water that make daily life possible. The bank holds 504 active loans worth a total of \$576 million in its Pooled Loan Program and more than \$240 million in the State Revolving Loan Program.

Like other organizations, the Vermont Bond Bank is navigating the digital transformation imperative. The need to provide borrowers with transparent and timely data access in the face of big changes pushed Bond Bank staff to build a database for its State Revolving Loan Program. Bringing this vision to life challenged the bank's small staff of three, but they succeeded in creating a cost-effective solution that did not require investment in in-house IT staff or major software subscription fees. Here is what the Bond Bank staff learned, and how other organizations can benefit from their success.

TRANSFORMING DEBT SERVICE DATA ACCESSIBILITY

Municipalities, school districts, and other public agencies often face challenges in obtaining funding at favorable rates for capital projects and maintenance. These can include limited borrowing capacity,

credit rates that vary with financial stability, and fluctuating borrowing costs, among others.

Pooled loan providers are a critical source of financing for local governments and agencies like school districts. They lend funds for facilities renovation and construction projects (like the Town of Middlebury, Vermont, Town Offices project, pictured above), road and highway improvements, equipment purchases, general infrastructure, and more. Many of these providers can trace their origins to the Vermont Bond Bank. When it was created by the Vermont General Assembly in 1970, the Bond Bank was the first institution of its type in the country. Today, similar organizations now exist in 11 other states, along with many similar financing agencies. These organizations provide local governments and state agencies with affordable, innovative, and appropriate capital.

One of the Bond Bank's key loan programs is the Clean Water and Drinking

Water State Revolving Funds Program (SRF), established in the 1990s. SRF loans are made through state and Environmental Protection Agency (EPA) funding. These are below-market-rate loans for related infrastructure and natural resource conservation projects across Vermont. The Bond Bank jointly administers the SRF program with the Vermont Department of Environmental Conservation (DEC).

Trailblazing history aside, the Bond Bank was lagging in providing increased financial visibility to SRF borrowers and the public. Data was locked in PDFs and therefore not readily accessible. Ultimately, the impetus to take a transformational leap forward in visibility came from the pandemic.

In spring 2020, Vermont created a host of programs to help residents and communities cope with the COVID-19 pandemic. Working with DEC, the Bond Bank helped create the COVID Relief Program for SRF borrowers that was announced in April 2020. The program suspended principal payments and waived interest and administration fees between June 1, 2020, and May 1, 2021.

Each amortization schedule had to be signed by the State of Vermont Department of Environmental Conservation and Vermont Bond Bank, with a copy sent to the borrower and trustee. The program also introduced greater complexity: borrowers could decide to defer the full payment, pay the principal, or pay the full amount, including the waived interest and administrative fees. Each payment had to be reviewed and posted, and the loan had to be re-amortized based on the deferral or payment elected.

Given this change and the associated administrative work, staff could see the need for a readily accessible and

timely method to communicate debt service schedules to borrowers and interested parties. In fact, it would be transformative. “In our rural state, there are only two governmental units that have public credit ratings, so the majority of the facilities and infrastructure financing is made through the Bond Bank,” said Executive Director Michael Gaughan. “By putting our loan information on our website, we could provide an accurate picture for borrowers and the public of the lending in their communities.”

ON A MISSION TO BUILD A DATABASE

This situation was an opportunity to create change—and greater visibility. The organization's vision was to create a usable tool for all amortization schedules in this program, with the ability to aggregate loans, see overall debt service requirements, and export relevant information to Excel.

Controller Elizabeth King joined the staff in December 2020, and as she described it, “The database was a ‘day one’ project for me. I had to learn the SRF program and build a working database.”

Building the tool, though, would be no small undertaking. The database would ultimately include more than 400 loans for approximately 170 borrowers, with a significant volume of data that needed to be consolidated and summarized. The Bond Bank had previously built a database for its pooled loan program with its local web developer, and the team used this prior project as a springboard for building the new database.

As project lead, King embarked on the months-long project by using the data collected through the Coronavirus Relief

Program to populate an Excel database. Together, finance staff and web developers focused on closing knowledge gaps. For example, the finance team explained the purpose of toggling between a fiscal versus a calendar year to the web developers.

King emphasized that the database is built on readily available tools. “The tool is built in Excel, without reliance on complicated formulas. It uses the ‘ad across’ function and some other simple formulas.” She noted that the Bond Bank team engaged their web vendor to integrate the database into their website.

Gaughan added, “Part of the beauty of this project is that it was not overly complicated—there was not an extensive RFP process involving large vendors. With the right expertise on our team and with our local web vendor, we were able to develop this tool for an investment of approximately \$10,000 in development and ongoing hosting and maintenance fees.”

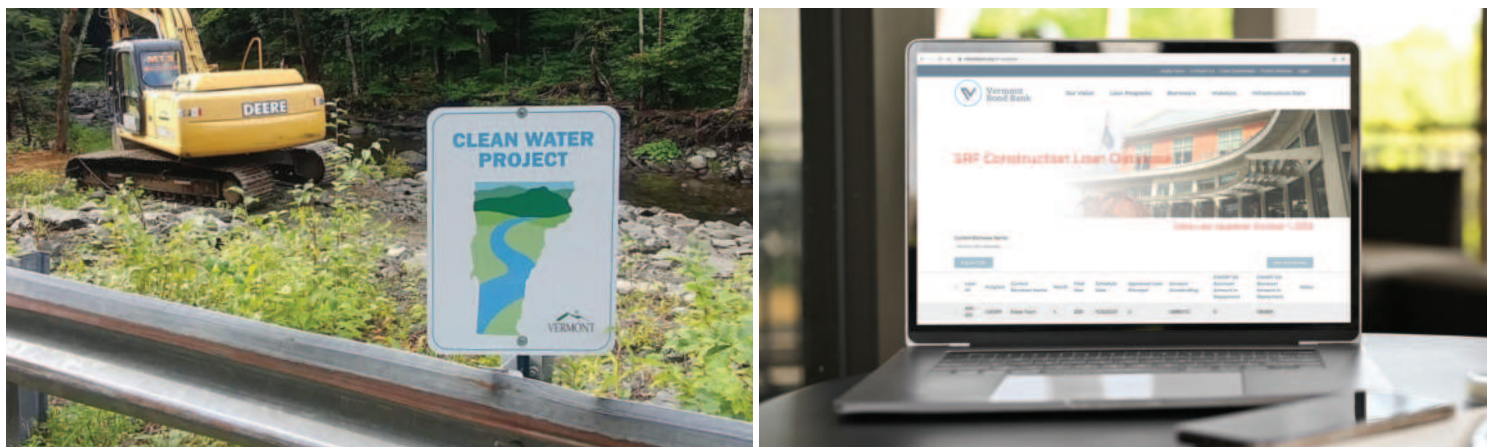
When completed, the Clean Water and Drinking Water SRF amortization database allowed both public and government borrowers to transparently view their SRF loans individually and in aggregate—for the first time. The database could also handle the added complexity in repayment options introduced by the relief program.

Now that the loan data is in Excel and updated quarterly, it opens new possibilities for visibility and analysis. Unlike static financial reports, the database provides a real-time look at debt within Vermont communities. The format also enables drilling down on loans that can be used to compare loans in similar communities or review the debt of an individual community.



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Left: The Clean Water and Drinking Water State Revolving Funds (SRF) Program is one of Vermont Bond Bank's key loan programs, which offers below-market-rate loans for natural resource conservation and related infrastructure projects, like the one pictured here. **Right:** The Vermont Bond Bank's database includes more than 400 loans for approximately 170 borrowers, allowing both public and government borrowers to transparently view their SRF loans individually and in aggregate for the first time.

A MODEL FOR POOLED LOAN PROVIDERS

When compared with debt management tools that can require annual subscription fees of more than \$50,000—with limited or no public access—it is easy to see success in this cost-effective in-house development.

Internal and external benefits underscore the tool's success. The database has created greater transparency for borrowers and community members, which is important because the SRF program requires an annual appropriation from the State of Vermont to meet EPA match requirements. More clarity on the role SRF debt plays in a community can help to garner more support for such funding programs, including from policymakers viewing the impact in their home communities. In addition, the model's easy-to-use data outputs can help borrowers improve long-range financial planning, which can ultimately strengthen their credit profiles.

"Creating public transparency on what a community's debt looks like is a big deal," Gaughan noted. "The borrowers within the SRF program range from systems that serve 40 residences up to cities with populations of more than 40,000 people. With this database, we now have transparency that didn't previously exist because of inconsistencies between system size and professionalization. Public transparency on government financing is always important—and now more is possible for Vermont."

Internally, this database has improved efficiency. The database has also streamlined loan administration, cutting down on the need for verification of loan balances with finance officers, auditors, and the general public. A cash flow forecasting tool enables more efficient program management by optimizing the timing of cashflow needs while cutting down on time required to reconcile loan balances with partners.

Finally, greater transparency helps borrowers improve financial management. "We built the database so that you could export service schedules right next to each other, so anyone can see all information related to debt in one place. Users can also compare what the debt profile of a particular system looks like over the life of the loan," Gaughan pointed out. "This kind of visibility helps leaders make better decisions on borrowing and for their communities."

SOLVING COMMON CHALLENGES

The database project involved multiple related challenges that many governments face, including:

- Lack of data access.
- Lack of understanding of government debt profiles.
- Communication barriers between government instrumentalities providing services and the diverse needs of end users—in this case, borrowers, and the public.

In the case of the SRF database, the amortization schedules were stored in individual PDFs that kept Bond Bank staff, borrowers, and others from gaining an aggregate understanding of local government debt at individual, community, and statewide levels. Creating the database unlocked the data and enabled it to be exported and analyzed, with far-reaching benefits.

Together the Bond Bank's two databases provide a comprehensive look at nearly any Vermont community's current debt profile. "This work provides a model for how the public can quickly view and understand government debt without reliance on traditional financial reports," Gaughan said.

Ultimately, the Bond Bank team members saw the broader value of the data to communities, the state, and borrowers—and brought their functional and technical experience together to create the tool. "It is sometimes difficult to see the opportunity provided by large projects," King said. "Other organizations can and should look at projects to see if there are opportunities to achieve long-term goals or better communication to the public through data."

VIEW THE DATABASE

Explore the database on the Vermont Bond Bank's website at vtbondbank.org/srf-database. Users can view data related to all current loans and export select or full data via .csv files, and the date of the last data update is shown to all users in the tool's right-hand corner.