



WBL Financial Impact Analysis

WBLA Work Group Meeting – September 30th, 2026

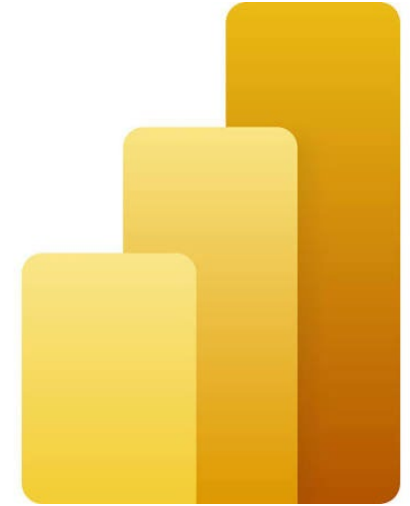
Agenda

- Dashboard Scope
- Overview of Dashboard Approach
- Methodology Overview
 - **Grants and Loans**
 - **Revenue Generation**
 - *Local or State Sales Tax Increases*
 - *Local or State DNR User Fee and Surcharges*
 - *Water Availability Charge (WAC) fees*
 - *Conservation, Inflation, and Tax Base Growth*
 - **What If Options**
 - *Optimized fees/increases to meet revenue needs*
 - *Maximized fees/increases to meet projected needs in all years*
 - *Manual fees/increases to identify possible deficits*
 - **Impact Assessments**
 - *Characterizing the financial impact on residents*
- Scenario Analysis
 - **Using the tool to project impact on utilities and residents**

Overview of Financial Dashboard Approach

Dashboard Overview

- **Purpose:** Consolidate financial considerations into a planning level tool to facilitate the comparison of different technical alternatives
- **Platform:** Developed in Power BI to provide a navigable user interface
- **Inputs:** Includes capital and O&M costs for technical solutions, debt service assumptions, revenue generation assumptions
- **Outputs:**
 - Annual revenue requirements to implement selected technical solutions
 - Estimates of impact to WBLA and statewide residents



Microsoft Power BI is an interactive business intelligence platform that integrates engineering, operational, financial, and asset management data into dynamic dashboards, enabling water utilities to evaluate system performance, prioritize capital improvements, assess funding scenarios, and support data-driven decision making.

Power BI was chosen here to provide a customized workflow to estimate impact of the WBLA alternatives.

WBL Financial Impact Analysis Dashboard



Step 1 - Solutions

Step 2 - Capital Funding

Step 3 - Debt Funding Coverage

Step 4 - Annual Funding Mechanisms

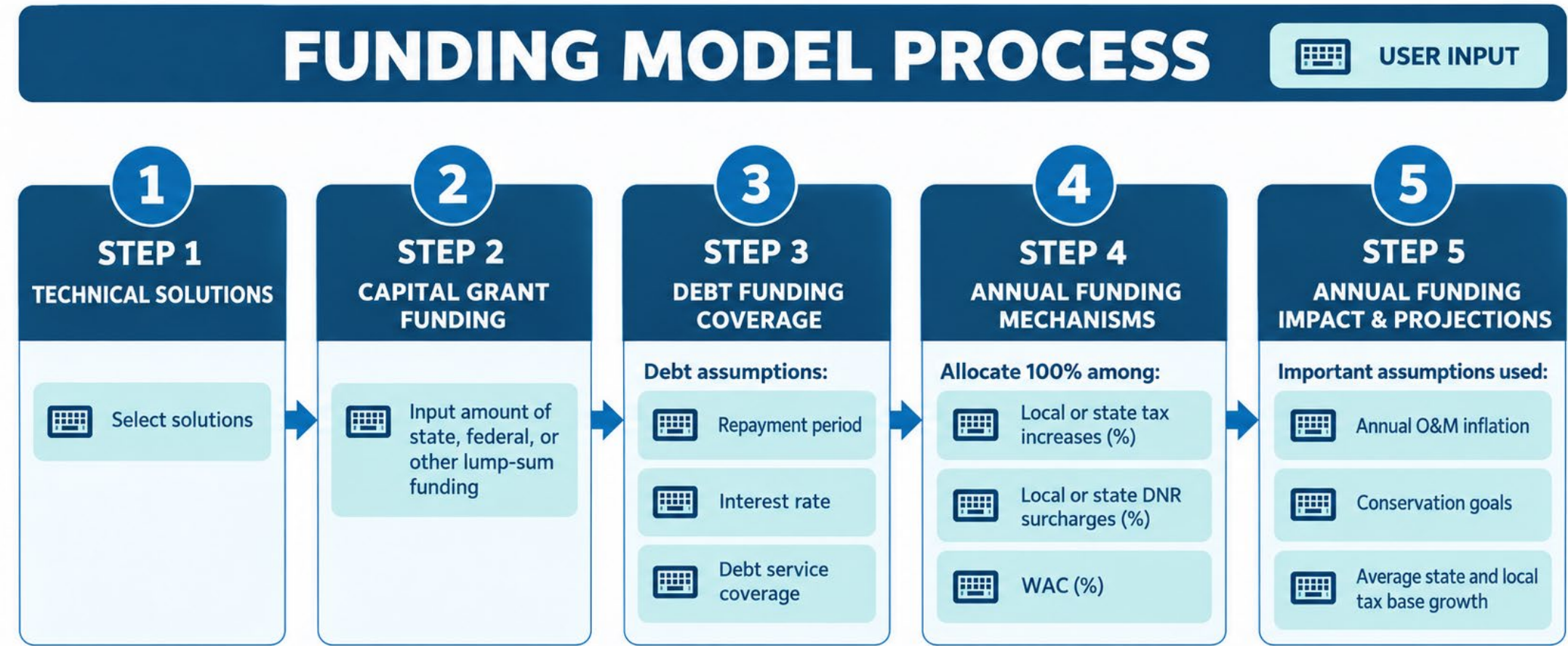
Projections



WBL Financial Analysis Dashboard

*A Financial Analysis of Various Sustainable Water
Level Alternatives*

Overview of Dashboard Workflow



Methodology Overview

Step 1: Selection of Technical Solutions

The user can select multiple water supply solutions.

Costs are based on the information developed under the technical studies.

The user can overwrite and update the costs for any potential solution or group of solutions.

WBL Funding Planning Dashboard

Step 1: Pick a set of Technical Supply Solutions. Use this tab to select one or multiple technical solutions from the table below. Match the solution number in the menu with the selections in the drop down list.



Solution Number

2

Capital Cost Overwrite

O & M Overwrite

Solution Number	Potential Infrastructure Solution	Capital Costs	Annualized O & M Cost	Estimated Increase To Surface Water Elevation in WBL at Ultimate Development (feet)
1	Augment White Bear Lake from surface water pumped from Judicial Ditch 3 (outfall from Bald Eagle Lake) that is treated for phosphorus, nitrogen, and chlorophyll (Study 1)	\$54,037,000	\$1,369,500	2.10
2	Distribute treated surface water from St. Paul Regional Water Services to Mahtomedi, Saputo Dairy Foods, Vadnais Heights, White Bear Lake, and White Bear Township for Hugo 1 or Hugo 2 development scenario – Alternative 1 (Study 2)	\$591,980,000	\$10,295,350	3.35
3	Distribute treated surface water from St. Paul Regional Water Services to Mahtomedi, North St. Paul, Saputo Dairy Foods, Vadnais Heights, White Bear Lake, and White Bear Township for Hugo 1 or Hugo 2 development scenario – Alternative 2 (Study 2)	\$602,180,000	\$21,646,000	3.35
4	Distribute treated surface water from St. Paul Regional Water Services to Mahtomedi, North Oaks, Saputo Dairy Foods, Vadnais Heights, White Bear Lake, and White Bear Township for Hugo 1 or Hugo 2 development scenario - Alternative 3 (Study 2)	\$673,945,000	\$11,536,150	3.35
5	Distribute treated surface water from St. Paul Regional Water Services to Mahtomedi, North Oaks, North St. Paul, Saputo Dairy Foods, Shoreview, Vadnais Heights, White Bear Lake, and White Bear Township -	\$583,885,000	\$12,655,700	3.35

\$591.98M

Capital Costs

\$10M

O & M Costs

Screenshot of the dashboard showing step 1. Descriptions of each water supply solution are provided, along with costs and benefit to the lake.

Step 2: Grants and Capital Funding

Ability to represent lump sum funding provided by **external sources**.

Supports “**what if planning**” by providing users with various funding sources.

Encoded as a source of **capital funding**, not as a revolving source of annual funds.

Federal Lump Sum	State Lump Sum	Environmental and Natural Resources Trust Fund (ENRTF)	Other Lump Sum
\$5,000,000	\$10,000,000	\$0	\$2,000,000

Input required for below visuals and calculations

Screenshot of the dashboard showing potential sources of funding and their planning amounts.

Step 3: Debt Funding

Debt necessary to complement capital funding

Up to 3 different Debt Options

- Project Phases
- Types of Loans (SRF, WIFIA, Revenue)

User Input

- Start Year
- Repayment Period
- Interest Rate
- Debt Service Coverage

User Input allocate total debt funding 100% among 3 debt options

WBL Funding Planning Dashboard



Step 3: Enter loan details for up to three loans to cover the capital funding gap. Define the percentage of the funding gap that should be covered by each loan by entering a value in the Loan Allocation field. The loan amount will adjust based on these inputs to cover the funding gap.

Financing Source I

All inputs required when scenario is included

Include

☒ Yes

Start Year

2026

Loan Allocation (% of total)

15%

Loan Term (years)

20

Interest Rate (%)

7%

Debt Service Coverage Ratio

1

\$336.16M

Loan Amount

\$31.73M

Annual Debt Service

\$298.47M

Interest Paid Over Lifespan

Financing Source II

All inputs required when scenario is included

Include

☒ Yes

Start Year

2026

Loan Allocation (% of total)

75%

Loan Term (years)

20

Interest Rate (%)

4%

Debt Service Coverage Ratio

1

\$1.68bn

Loan Amount

\$123.68M

Annual Debt Service

\$792.73M

Interest Paid Over Lifespan

Financing Source III

All inputs required when scenario is included

Include

☒ Yes

Start Year

2026

Loan Allocation (% of total)

10%

Loan Term (years)

30

Interest Rate (%)

7%

Debt Service Coverage Ratio

1

\$224.11M

Loan Amount

\$18.06M

Annual Debt Service

\$317.69M

Interest Paid Over Lifespan

\$2.26bn

Capital Costs

\$37M

O & M Costs

\$2.24bn

Funding Gap

\$17M

Grant Funding

\$1.41bn

Total Interest Paid

\$173.47M

Annual Debt Services

Screenshot showing loan input requirements and output summary

Step 4: Allocation Among Funding Mechanisms

Revenue SourcesAllocation total is under 100%

DNR User Fees	Sales Tax	WAC Fees
25%	0%	20%
☐ Local ☒ Statewide	☐ Local ☒ Statewide	

Values should be entered as decimals, allocation total should equal 100%

Screenshot of the dashboard showing distribution of revenue options

Selected Projects' annual O&M and Debt Service become an annual cost

Allocate annual costs among 3 Funding Mechanisms

3 Possible Funding Mechanisms

- Sales Taxes (State and Local)
- DNT User Fees (State and Local)
- WAC Fees

Funding Mechanism – Sales Taxes (Local or State)



Funding Mechanism – DNR User Fees (Statewide or Local)

1 TOTAL COSTS ALLOCATED



Annual Debt Service



Annual O&M Costs

Portion assigned to DNR surcharge funding

2 REQUIRED DNR SURCHARGE



Allocated Annual Costs ÷
Applicable Groundwater
Pumping



DNR Surcharge per
Million Gallons (\$/MG)

3 CUSTOMER IMPACT



DNR Surcharge per MG ×
0.09 MG per Year



Average Annual
Single-Family Customer
Impact (\$)

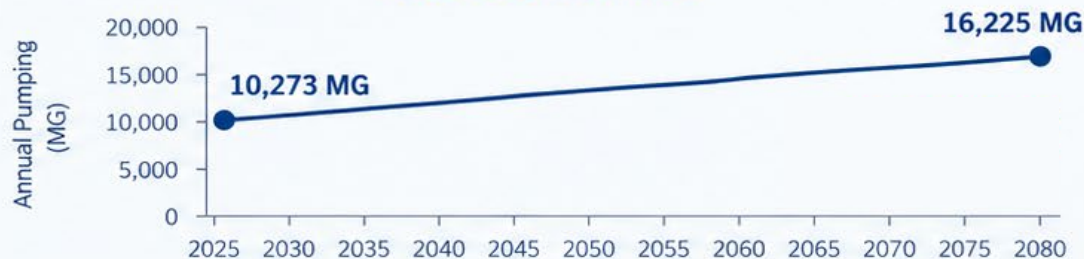
Assumes 7,500 gallons per month, or 90,000 gallons
per year, and that the surcharge is passed through
to customers.



The surcharge per millions gallons is required for the funding analysis, while the annual customer impact is generally easier to understand.

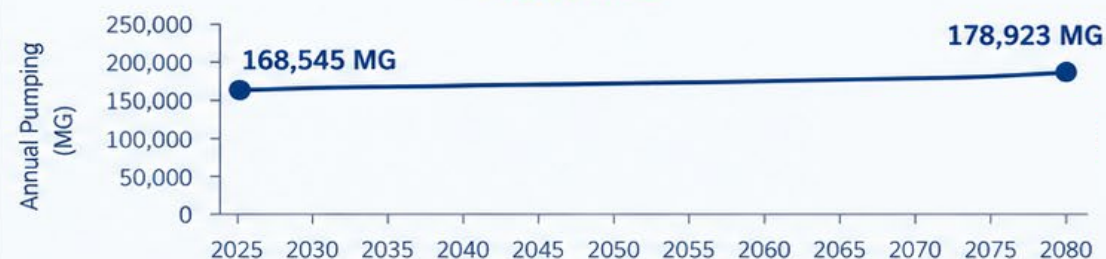
Applicable Groundwater Pumping Projections

WBLA Communities



Metropolitan Council projection; excludes agricultural demand.

Statewide



Projection assumes 5.7% total statewide population growth by Year 2075 (source: MN State Demographic Center)

Funding Mechanism – Water Availability Charges (WAC)

1 ONE-TIME CONNECTION CHARGE



Charged only to new connections in the White Bear Lake Area

Also known as an impact fee, development fee, or capacity fee

2 INITIAL WAC FEE PER UNIT



Total Debt Service Assigned to WAC ÷ Projected WAC Units over the Next 25 Years

=

WAC Charge per Unit (\$)

Debt service only; O&M is excluded

3 FUNDING LIMITATIONS



Revenue depends on new development

Growth can be volatile

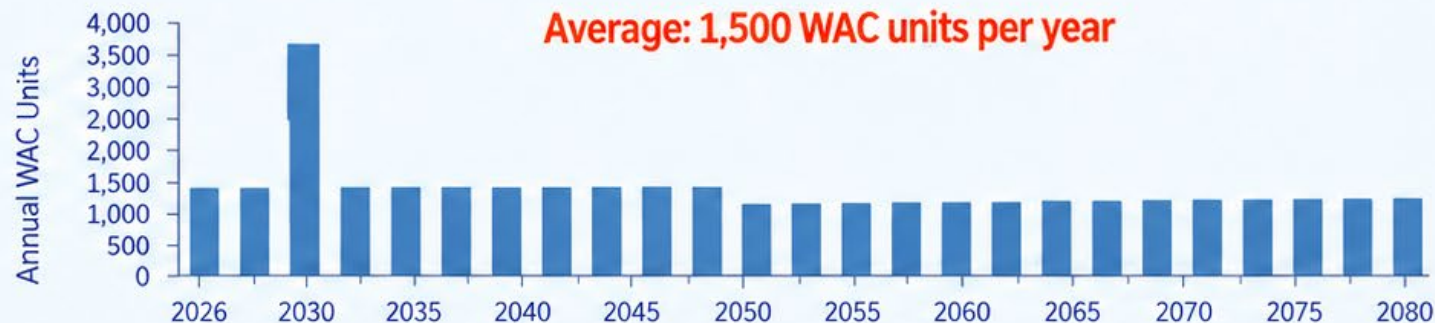
O&M costs cannot be recovered through this charge

Less reliable annual funding source



WAC revenue can help fund capital-related debt service, but collections vary with the timing and pace of development

Projected WAC Units in the White Bear Lake Area



Projection developed by the Metropolitan Council.

ONE WAC UNIT



Single Family Equivalent

202
gallons per day

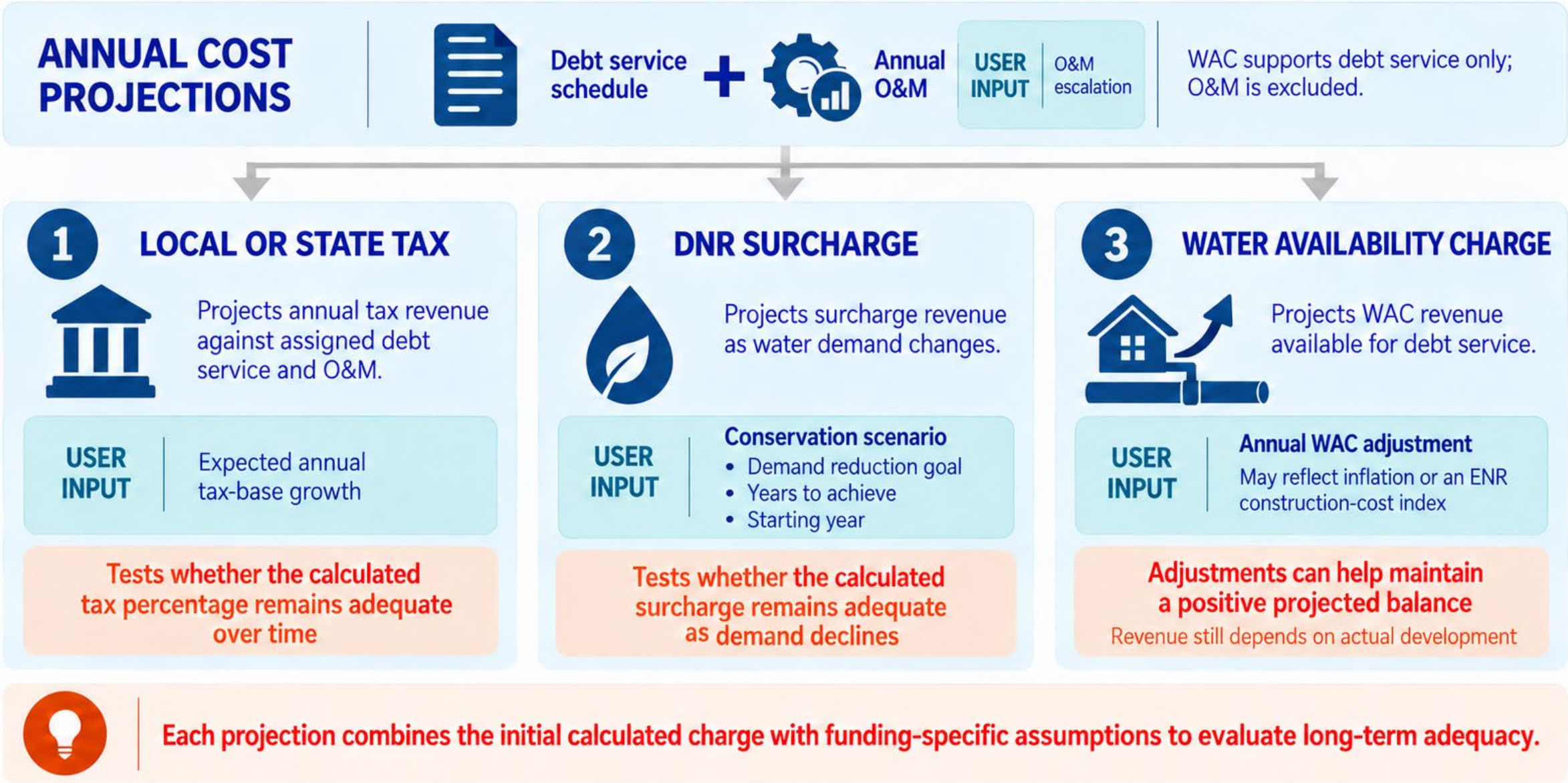
2.39
people per household

The WAC charge is calculated on a per-unit basis.

Funding Mechanism Projections

Funding Projections

Long-term projections test whether calculated taxes and fees remain sufficient to fund **assigned** costs.



Funding Scenario Example

Estimating the impact of technical solutions and funding scenarios

Study – 7B:

Augment White Bear Lake from East Vadnais Lake with up to 2 billion gallons per year (BGY) of surface water treated for suspended solids, aquatic invasive species, phosphorus, nitrogen, total organic carbon, and manganese

Scenario – Augment WBL

Technical Solution	Funding Alternative	Capital Cost	O&M Cost	Grant Funding	Sales Tax Revenue	DNR User Fee Revenue	WAC Fee Revenue
Augment White Bear Lake from East Vadnais Lake with up to 2 billion gallons per year (BGY) of surface water treated for suspended solids, aquatic invasive species, phosphorus, nitrogen, total organic carbon, and manganese	Local	\$182 million	\$2.5 million	0%	50% (local)	25% (local)	25% (WBLA)
	Statewide	\$182 million	\$2.5 million	0%	50% (statewide)	25% (statewide)	25% (WBLA)
	Mix	\$182 million	\$2.5 million	0%	75% (statewide)	20% (local)	5% (WBLA)

+2.9

Feet added to WBL Water Level

Theoretical Funding Needs based on Loan Terms

Loan	Loan Amount	Loan Term	Interest Rate	Annual Debt Service
Financing Source I	\$27 million (15%)	20	5%	\$2.2 million
Financing Source II	\$137 million (75%)	30	5%	\$8.9 million
Financing Source III	\$18 million (10%)	30	5%	\$1.2 million

Forecasts are provided in the dashboard to allow slightly more granularity when planning for multiple loans based on start year.
Project costs should be reevaluated every few years.

$$\begin{aligned}\text{Annual Cost} &= \text{O\&M} + \text{Annual Debt Service} \\ &= \$2.5\text{M} + (\$2.2\text{M} + \$8.9\text{M} + \$1.2\text{M}) \\ &= \$14.8\text{M}\end{aligned}$$

Impacts of Funding

Impact from generating \$14.8M annually

Alternative 1 - Local:

50% tax – 25% DNR Fees – 25% WAC Fees

0.05%

Net Local Sales Tax Increase

\$15

Annual Sales Tax Increase per Household

\$420

DNR User Fees and & Surcharges Per Million Gallons

\$38

Annual DNR User Fees Impact per Residential Household (Assuming 7.5k gallons per month)

\$2.3K

Water Availability Charges (Cost per WAC unit)

Alternative 2 - Statewide:

50% tax – 25% DNR Fees – 25% WAC Fees

0.007%

Net Statewide Sales Tax Increase

\$2

Annual Sales Tax Increase per Household

\$26

DNR User Fees and & Surcharges Per Million Gallons

\$2

Annual DNR User Fees Impact per Residential Household (Assuming 7.5k gallons per month)

\$2.3K

Water Availability Charges (Cost per WAC unit)

Alternative 3 - Mix:

75% tax – 20% DNR Fees – 5% WAC Fees

0.01%

Net Statewide Sales Tax Increase

\$3

Annual Sales Tax Increase per Household

\$361

DNR User Fees and & Surcharges Per Million Gallons

\$32

Annual DNR User Fees Impact per Residential Household (Assuming 7.5k gallons per month)

\$453

Water Availability Charges (Cost per WAC unit)