

WAITSFIELD WATER AND WASTEWATER SYSTEMS

Following up on Bulletins #1 & #2, which described the water and wastewater projects and why they are being proposed, the most common question being asked is “How Much Will This Cost?”

The Water and Sewer Task Force (WSTF) has worked for many months to structure a fair and practical funding formula for these important projects. The formula presented in this bulletin relies largely on user fees supplemented with a small impact on the town-wide tax rate.

Currently, 84% of the potential wastewater connections and more than 75% of projected water connections have either committed or expressed strong interest in connecting to the systems, which affirms the desire and the need for these projects. The more properties that hook on to the systems, the lower the costs will be to each connected user.

What will this cost the Waitsfield taxpayer? The Selectboard has proposed a 1.5¢ per \$100 of assessed value to all properties in Waitsfield – or, approximately \$30 per year for a family with a \$200,000 home. This taxpayer support will be an investment toward a healthier, more vibrant downtown in Irasville and Waitsfield village where we all engage in commercial and civic endeavors.

Among other benefits, a positive vote for the water system improvements will: eliminate public health hazards by providing a safe and reliable drinking water supply to properties with wells that are compromised by on-site septic systems; provide a new hydrant system and the opportunity for sprinkler systems that will

improve our firefighting capacity and protect our valuable and historic buildings; and, improve the ability of the school, public buildings and commercial establishments to comply with state and federal rules.

Likewise, a positive vote for the wastewater system will further alleviate a public health hazard, help protect the quality of our surface and ground waters, and support a vibrant commercial, cultural and residential center in Irasville.

After more than \$1 million invested by the Town over 10 years to study and design the systems, we have a window of opportunity to take advantage of existing grant funds that will expire otherwise, low interest rates for borrowing, a competitive market for large-scale construction projects, and the ability to coordinate the project with the construction of the new sidewalk and reconstruction of Route 100.

Restoration of the sidewalk and roadway after the pipelines have been installed will be paid by the sidewalk and Route 100 projects, resulting in additional one-time savings.

Please take the time to review the detailed summary of costs, anticipated revenue, and funding source information presented below. Residents and landowners are also encouraged to contact us with any questions that you may have. And, please be sure to vote on March 4.



Once they are constructed, costs will include yearly fixed and variable costs, as well as one-time costs associated with connecting to either system. Fixed costs are those that must be paid, even if no water is used or wastewater is generated, such as the debt service on loans and costs associated with maintaining the system. This cost is reflected in the connected user base fee. Variable costs reflect the amount of water used wastewater actually generated above a certain base amount, which is measured by a meter. This is called the use fee. One-time costs include the cost to extend the service line from the right-of-way to the building as well as the connection fee, which, among other things, covers the cost of the meter and fittings. These costs and more are explained in detail below.

WATER SYSTEM PROJECT COSTS

The initial cost to construct the water system is projected to be \$7.6 million. This includes construction, source exploration and drilling, legal, administration, easements, engineering, permitting and other related costs. This cost will be offset by grants and a portion of connection fees, resulting in a “local share” that will be rolled into a long-term

[continued on page 2](#)

WASTEWATER SYSTEM PROJECT COSTS

As described in Brochure #2, the wastewater project is proposed to be constructed in two phases. Phase 1 will provide a system capacity of approximately 18,000 gallons per day (gpd) with the ability to serve approximately 30-50% of the existing properties in Irasville. An important goal of Phase 1 is to get the basic infrastructure in the ground with-

[continued on page 4](#)



WATER PROJECT COSTS - continued from page 1

loan as shown in Table 1.

Construction costs	\$5.2 M
Construction contingency (10%)	\$0.5 M
Other costs (engineering, legal, admin., easements, etc.)	\$1.9 M
Projected Initial Costs	\$7.6 M
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Off-setting Revenues	
Fed. State & Tribal Assist. Grant (STAG) secured	(\$0.4 M)
USDA Rural Development Grant - not secured (need positive bond vote)	(\$1.8 M)
Connection fees to pay for meters	(\$0.1 M)
Total off-setting revenue	(\$2.3 M)
Projected local share of initial costs to be paid back with a loan from USDA Rural Development at 2.5% over 40 years.	\$5.3 M

Annual Costs

In addition to the debt service to pay back the long term construction loan, annual costs will include operation and maintenance (O&M) costs such as labor, utilities, testing, and administrative costs such as billing and insurance. As a condition of RD funding, the users must also contribute to a reserve fund to help offset future capital expenditures. These projected costs are shown in Table 2.

Annual Revenues

Revenues to pay the annual costs are proposed to come from new connection

Annual Costs	
Debt service (40-yr Rural Dev. loan on 5.3 million)	\$211,000
Operation & Maintenance (O&M)	\$50,000
Contribution to Reserve Fund	\$20,000
Projected Annual Costs	\$281,000
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Annual Revenues	
New connections (assumes 10 per year)	(\$20,000)
Fire protection assessment	(\$40,000)
Connected user fees - Base Fee (to retire the debt service)	(\$171,000)
Connected user Use Fee (to offset annual O&M costs)	(\$50,000)
Total Projected Annual Revenue	(\$281,000)

fees, an assessment on properties that will receive the benefits of fire protection, fees for properties that have or install private hydrants or sprinkler systems, and connected user fees

Connection Fees - A one-time connection fee of \$2,000 per ERU will be charged for each new property to connect to the system. Included in this fee is the cost of a meter, pressure-reducing valves, backflow prevention devices and associated fittings and an allocation to a maintenance reserve fund.

Fire Protection Assessment - The decision to include fire protection adds a significant cost to the project by needing to install larger piping, a much larger tank, and hydrants to provide the high volumes of water needed to fight fires. This cost is at least 20% of the total cost of the project. Because all properties with structures will benefit from fire protection (even those not choosing to connect at this time), the Town is proposing an assessment on properties with buildings within 1,000 feet of a fire hydrant to cover 20% of the

debt service on the project. Some properties have or plan to install private hydrants and/or sprinkler systems that the Town will not maintain. These properties will require larger service piping and will receive an added fire protection benefit served by the Town system. The Town is considering an additional fee of \$0.075 per \$100 of assessed building value for these properties to cover a portion of the debt service.

What is an ERU?

An equivalent residential unit (ERU) is a standardized base design and billing unit established by Vermont state rules that represents an average daily water usage and wastewater flow for a typical three-bedroom residence. For design purposes, one ERU is determined to be 245 gallons per day (gpd). This method is used to provide a way of equalizing charges based on a property's potential share of water use. The number determines the dollar amount of the connection fee and will be used to determine the base fee for annual charges. The minimum ERU for all properties is 1.0. These values have been used in the design of the facilities and are also the basis for calculating connection and user fees for both systems. When a connected user is referenced, we are referring to 1 ERU.

Connected User Fees –

The majority of debt service and all of the O&M costs will be borne by the connected users, which include two components - a Base Fee and a Use Fee.

The Base Fee shown is the amount each connected user is projected to pay toward debt service. The base fee will be charged as a multiple of the property's designated ERU value (i.e. a property with 2 ERUs will pay twice the amount as a property with 1 ERU).

The **Use Fee** shown is the **average** amount a typical connected user will contribute to offset the annual O&M costs and is expected to be based on the amount of water used. Properties with higher water uses will pay an equitably higher share towards the O&M costs.

With this model, the use charge would be in the range of \$5 per thousand gallons of water used. The rate schedule will not be finalized until the project is in construction, as it is anticipated some properties will elect to wait until the pipeline is being installed past their home to agree to connect.

Costs for Connected Users

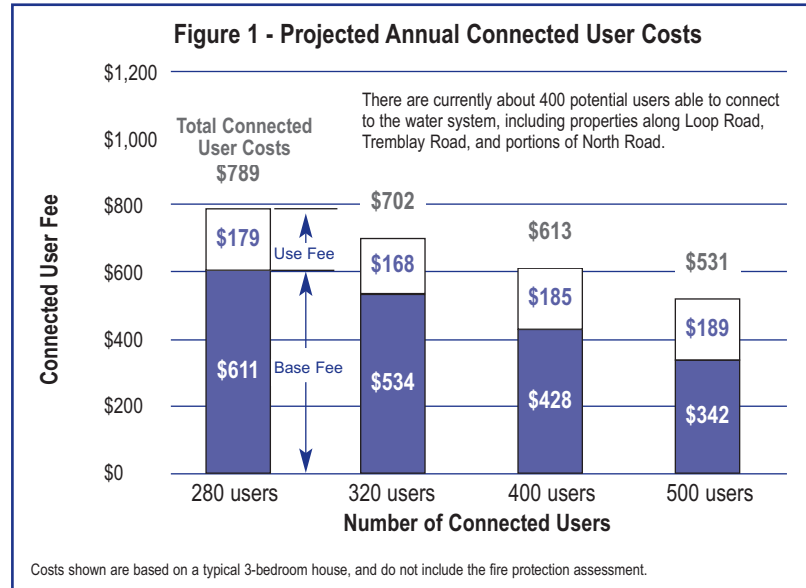
In addition to the one-time **Connection Fee** (see above), property owners will be responsible for the cost to extend the water service from the edge of the right-of-way to the building. This cost will depend on the distance of the structure from the edge of the right-of-way, obstacles such as ledge or landscaping, and who the property owner hires to do the job. Typically, a cost of \$30 per foot can be budgeted.

Table 3 provides a breakdown of the one-time and annual costs for a typical household that connects to the water system. Figure 1 shows that as more users connect to the system, both the base fee and use fees will be reduced as the debt service and annual costs are spread over a wider base.

Costs to Taxpayers

With funding through U.S.D.A. Rural Development, the cost to taxpayers will be zero. A condition of the RD funding is that it be paid entirely by the users of the system. An alternative source of funding would come through the Vermont Municipal Bond Bank, which tax-

payers would need to pay debt service at interest rates of about 4.2% over 20 years.



For more information, visit www.waitsfieldvt.us/water.

Table 3. Example: Single Family Home in Service Area, \$200,000 Assessed Value

Annual Costs	
Base Fee for Debt Service (per ERU)	\$611
Use and O&M Costs	\$179
Fire protection assessment (\$0.075 per \$100 assessed building value)	\$150
Total Annual Costs	\$940
One-Time Costs	
New connection fee (see note)	\$2,000
Construction of service from ROW to structure (50 feet estimated)	\$1,500
Total first year cost	\$4,440
Note: There is still time for a reduced connection fee of \$1,500 per ERU if an agreement is signed by March 4th, the date of the Bond Vote.	

Costs to Non-Users in the Service Area

Property owners in the service area within 1,000 feet of a hydrant will be charged an annual fire protection assessment, based on the assessed value of the structures on the property.

"The Fire Department supports the water project because hydrants will cut our attack time in half or better, especially in winter when surface water supplies are frozen and the risk of fire is highest."

--Delbert Palmer, Fire Chief,
Waitsfield-Fayston Volunteer Fire Department

WASTEWATER PROJECT COSTS - continued from page 1

in the service area prior to the upcoming sidewalk and paving projects. It also reflects the constraints of current funding options to offset the initial costs of the system. Phase 2 includes the addition of a treatment plant that would increase the system's capacity by 5 times to over 90,000 gpd, which would provide the capacity to handle all of Irasville's existing uses and provide an opportunity for residential and commercial growth in Irasville. The costs associated with each phase are presented below.

Initial Costs	
Construction costs	\$3.6 M
Construction contingency (10%)	\$0.4 M
Other costs (engineering, legal, admin., easements, etc.)	\$1.6 M
Total Initial Costs	\$5.6 M
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Off-setting Revenues	
Fed. State & Tribal Assist. Grant (STAG)	(\$2.5 M)
Vermont Dry Weather Flow (DWF) Grant not secured (Town is on priority list)	(\$1.9 M)
Total off-setting revenue	(\$4.4 M)
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Projected local share of initial costs expected to be paid back with a municipal bond note from the VT Municipal Bond Bank, at 4.5% over 30 years.	\$1.2M

PHASE 1 COSTS

Initial Costs

The cost to construct Phase 1 of the wastewater system is projected to be \$5.6 million and includes construction of the collection system, pump stations, force mains, and disposal field at the Munn site (shown in Brochure #2) as well as the preliminary site studies, engineering, permitting, legal, administrative, and other related costs. This cost will be offset by grants and a portion of connection fees, resulting in a "local share" that will be rolled into a long-term loan as illustrated in Table 4.

Annual Costs

In addition to the debt service to pay back the long term construction loan, annual costs will include operation and maintenance (O&M) costs to collect, treat, and dispose of wastewater such as labor, utilities, testing, as well as administrative costs such as billing and insur-

The small Town-wide tax subsidy provides almost 3/4 of the projected debt service for Phase 1 initial costs to help keep user costs reasonable. This approach has been used successfully on other recent municipal wastewater projects, including Warren (1.7 cents), Rochester (5 cents), and Shoreham (4.5 cents).

Table 5. Summary of Annual Costs - Phase 1

Annual Costs	
Debt service (30-year bond)	\$72,000
Operation & Maintenance (O&M)	\$58,000
Contribution to Reserve Fund	\$10,000
Costs for Monitored User Program	\$40,000
Total Annual Costs	\$180,000
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Annual Revenues	
Connection Fees (assumes 2 per year)	(\$10,000)
Town-wide tax assessment (1.5 cents per \$100)	(\$52,500)
Monitored User Fees (\$150 per ERU)	(\$40,000)
Connected User – Base Fee	(\$19,500)
Connected User – Use Fee	(\$58,000)
Total Annual Revenue	(\$180,000)

ance. Projected costs for the Monitored User Program include labor and administration costs related to inspections and septic tank pumping where needed. These projected costs are shown in Table 5.

Annual Revenues

Revenues to pay the annual debt service costs are proposed to come from two sources: (1) a Town-wide assessment of 1.5 cents on the tax rate to help pay down the debt service and (2) a portion of the connected user fee (shown as the Base Fee on Table 5). Properties in the service area (including properties in Waitsfield Village) that do not connect to the system are proposed to be charged an annual monitored use fee. The bal-

ance of costs will be distributed among connected users though new connection fees and annual base and metered charges.

Connection Fees – A one-time connection fee of \$5,000 per ERU will be charged for each new property to connect to the system, which is comparable to connection fees in other Vermont towns. Included in this fee will be an allocation to a Reserve Fund. A limited number of new connections to the system will likely be allowed after the system is operational for a year and actual metered use is known.

Monitored User Fees – For properties in the service area (including properties in Waitsfield Village) that are not connected to the wastewater system, a monitoring arrangement is proposed to will be set up by the Town so each property is inspected once per year, and if necessary the septic tank will be pumped by the Town. For this arrangement, a fee of \$150 per ERU per year is anticipated. The program is intended to be self-

sustaining and not provide another subsidized revenue source for the connected users.

Connected User Fees – User fees are depicted in two components: a Base Fee that will pay off the balance of the debt service not covered by the Town grand list assessment, and a Use Fee to offset the O&M costs of the system..

Costs for Connected Users

One-Time Costs

Property owners will be responsible for the cost to extend the water service from the edge of the right-of-way to the building. This cost will depend on the distance of the structure from the edge of the right-of-way, obstacles such as ledge or landscaping, and who the property owner hires to do the job. Typically, a cost of \$30 per foot can be budgeted. In some cases, internal plumbing changes to allow the wastewater piping to exit the front of the house may save costs. Properties that will not be able to connect to the system by gravity, will be responsible for providing a private pump station and force main to the right-of-way.

Annual Costs

Table 6 illustrates one-time and annual cost per typical household that connects to the wastewater system, and Figure 2 illustrates the projected user cost as more users are allowed to connect to the system.

Table 6. Phase 1 Example: Single Family Home in Service Area, \$200,000 Assessed Value

Annual Costs	
Connected User Base Fee (per ERU)	\$260
Connected User Use Fee (based on water meter consumption)	\$769
Grand List Assessment	\$30
Total Annual Costs	\$1,059
One-Time Costs	
New connection fee (per ERU) (See note)	\$5,000
Construction of service from ROW to structure (100 feet; estimated)	\$3,000
Total first year cost	\$9,059

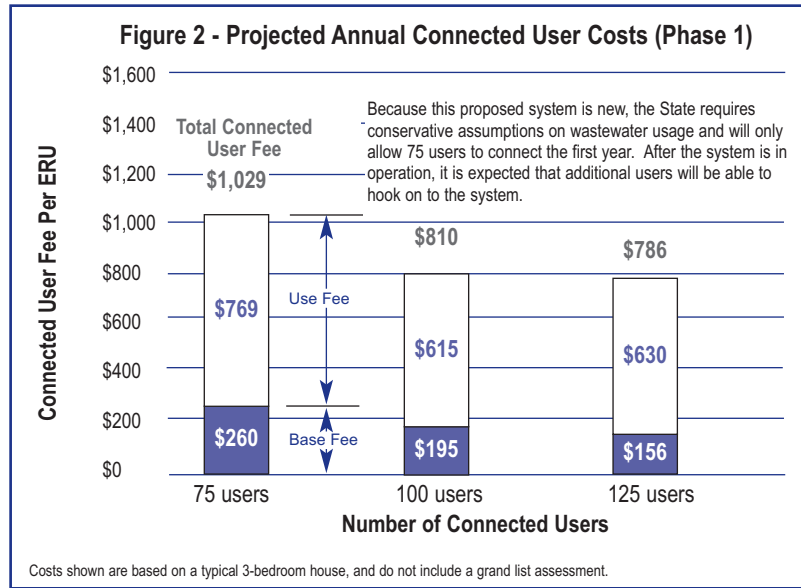
Note: There is still time for a reduced connection fee of \$4,000 per ERU if an agreement is signed by March 4th, the date of the Bond Vote.

Costs to Non-Users in the Service Area

Property owners in the service area that are not connected to the municipal wastewater system will be expected to pay an annual monitored user fee of \$150 per ERU.

Costs to Taxpayers

An assessment on every property in town will be imposed to offset a portion of the debt service on the project. A decision was made to limit the cost to taxpayers to 1.5 cents on the tax rate, which, on a property assessed at \$200,000 in 2007, is expected to amount to \$30. This approach requires that all other costs associated



with the project above that must be distributed among the users.

PHASE 2 COSTS

Initial Costs

Phase 2 is projected to cost \$6.5 million and would increase the system's capacity by 5 times to 91,710 gpd, which would provide the capacity to handle all existing uses and provide an opportunity for residential and commercial growth in Irasville. These costs are primarily related to construction, engineering, and permitting

Table 7. Summary of Initial Costs - Phase 2

Initial Costs	
Construction costs	\$4.0 M
Construction contingency (10%)	\$0.4 M
Cost increase, assumes 2012 construction	\$0.9 M
Other costs (engineering, legal, admin., easements, etc.)	\$1.2 M
Total Initial Costs	\$6.5 M
Off-setting Revenues	
Assumes Obtaining Grants and/or Offsets of 50% of project costs, not identified or secured	(\$3.25 M)
Projected local share of initial costs expected to be paid back with a loan from the VT Clean Water State Revolving Loan Fund, at 2% over 20 years.	
	\$3.25 M

a tertiary treatment plant at the Munn site. An inflation factor of 5% per year is included in the projected cost assuming Phase 2 does not commence until 2012 (Table 7).

Table 8 presents the annual cost and revenues associated with Phase 2. O&M costs will increase due to the operational costs related to the wastewater treatment facility, and it is expected that the Monitored User Program costs will decrease as capacity becomes avail-

Annual Costs	
Debt service (20-yr Clean Water SRF loan)	\$200,000
Debt service for Phase 1	\$72,000
Operation & Maintenance (O&M)	\$145,000
Contribution to Reserve Fund	\$50,000
Costs for Monitored User Program	30,000
Total Annual Costs	\$497,000

Annual Revenues	
Town-wide tax assessment (1.5 cents)	(\$52,500)
Monitored user fees (\$150 per ERU)	(\$30,000)
Connected User – Base Fee	(\$219,500)
Connected User – Use Fee	(\$145,000)
Total Annual Revenue	(\$497,000)

able and more existing users decided to connect to the Town system.

Table 9 illustrates the increases in annual cost for a typical household that is connected to the wastewater system in the first years after Phase 2 is constructed. The increase is almost entirely due to the fixed cost of debt service for the treatment plant construction, and not until a wider user base is provided through new connections will the user fees return to reasonable levels. The lack of grant funding available and financial burden of the projected

Annual Costs	
Connected User Base Fee (per ERU)	\$1,254
Connected User Use Fee (based on water meter consumption)	\$830
Grand List Assessment	\$30
Total Annual Costs	\$2,114

Planning, Design, & Engineering Costs

About \$1.2 million (\$700,000 on wastewater, \$500,000 on water) has been spent since 1998, when the planning, design, and engineering work began on these projects. This includes costs associated with identifying suitable wastewater disposal sites, exploring water sources, drilling test wells, hydrogeologic studies, construction of the Reed Road well, preliminary design and engineering studies, surveying, permitting, easements, legal services, and helping to assemble the funding packages from state and federal sources. Final engineering and construction services are projected in the construction costs.

Important note: If the bond vote fails and the projects are not constructed, the Town will still need to pay back the 15-year, no-interest \$768,500 wastewater loan and two 5-year, no-interest \$674,800 water loans for planning and engineering. If certain criteria are met, the STAG monies may be used to pay up to 55% (\$793,815) of those costs, leaving \$303,660 to be paid back over 5 years (or an annual payment of \$60,732, which would equal \$0.017 on the municipal tax rate) and \$345,825 to be paid back over 15 years (or an annual payment of \$23,055, which would equal \$0.007 on the municipal tax rate). For a property assessed at \$200,000, this would amount to \$48 per year for 5 years and \$14 per year for the subsequent 10 years.

Phase 2 costs are the primary reasons the project is being phased. The Town will need to identify and secure grant funding and explore other revenue

sources, such as a Tax Increment Financing (TIF).

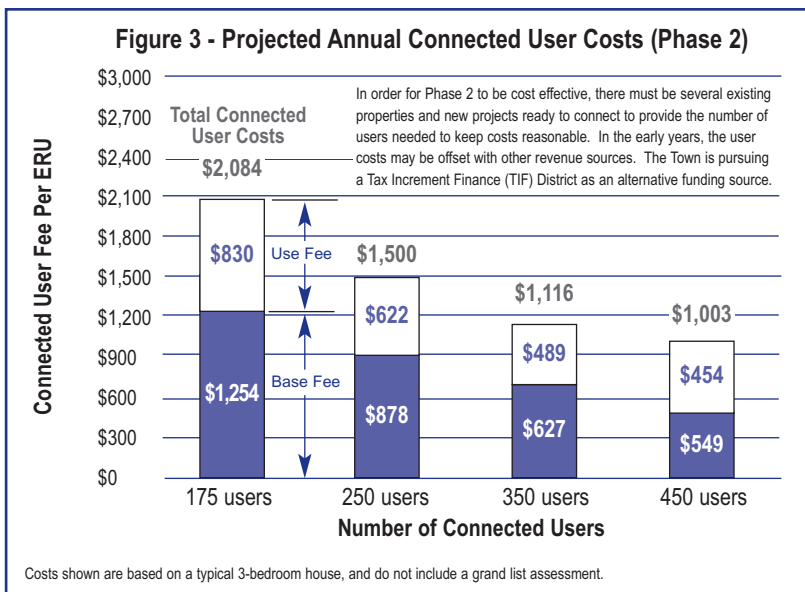
FUNDING SOURCES

The Town continues to actively pursue several potential sources of funding for the capital portion of the water and wastewater projects. With the proposed funding package through Rural Development, the entire cost of the municipal water project must be

borne by the users and not the broader tax base. Thus, a town-wide assessment to help offset the debt service would not be an option.

Grants & Loans

USDA Rural Development. This federal agency has funded small community water and wastewater projects in Vermont for decades. Rural Development (RD) typically offers a grant/loan package, with the grant portion set as a function of local income level, expected user rates, and funding availability. RD recently indicated that Waitsfield could plan on a 25%



grant, the remainder of which would be paid by an RD loan. The loan terms are normally close to market rates between 4% and 5%, although recent indications with the pending Congressional Farm Bill are that the rate may be reduced to as low as 2.5%.

Vermont Agency of Natural Resources. The Water Supply Division of ANR administers a revolving loan fund (RLF) for public water supply projects. Unfortunately, funding is not available for construction because eligibility is limited to existing water systems and not the development of new systems, such as Waitsfield's. The Town was able to take advantage of a planning RLF, which was used for the preliminary engineering and source exploration phases of the project. Two 5-year, no interest loans totaling \$310,747 were obtained through the RLF, with repayment slated to begin in 2012.

Vermont Dry Weather Flow (DWF) Grant. Awards of 35% of eligible project costs may be made to municipalities for the planning and construction of facilities for abatement of dry-weather pollution. This grant normally requires the identification of sources of pollution to the surface waters of the State. Although no specific pollution sources have been identified, the Town of Waitsfield received a legislative action identifying the Town's current situation as an "emergent condition" and eligible for this funding source. This funding source has not yet been secured, but the Town of Waitsfield is on the priority list. Grants are awarded based on a project's ranking on a priority system compared to other projects. Approximately \$1.9 million in grants are anticipated from this or other funding sources for Phase 1. and \$2.2 million for Phase 2.

Vermont Clean Water Revolving Loan Fund. If the Town receives additional grant funding other than the DWF grant described above, then the Town will be eligible to receive a long-term loan through the Clean Water State Revolving Loan Fund (CWSRF) which offers a 20-year loan without interest, but with an administrative fee of up to 2%.

Vermont Municipal Bond Bank. If the Town qualifies for the DWF grant, then the long-term loan will probably be issued as a Municipal Note through the Vermont Municipal Bond Bank. Current rates are between 4% and 5% with typical terms of 20 years, however for water and sewer projects the terms can be extended to 30 years.

State and Tribal Assistance Grant (STAG). The Town successfully applied for three earmarks totaling \$3 million from this federal program through the Vermont ANR and our Congressional delegation. After admin-

istrative costs are subtracted, approximately \$2.95 million is available to be applied toward 55% of either the water or wastewater projects. If the bond is voted down and the project has obtained all its permits, this money can be used to reimburse the Town for up to 55% of the planning, design, and engineering costs incurred.

Other Sources of Funding

Connection Fees. The connection fees are a cost, but they are also a revenue. While it is prudent to establish a reserve fund to provide for fluctuations in cash flow, a portion of the connection fee can be applied toward the project's direct costs.

Tax Increment Financing. Tax increment financing (TIF) allows the Town to "divert" new tax revenue from future developed properties within the district to be spent on infrastructure within the district. The Town is actively exploring the use of this financing tool to offset the debt service costs. If approved by the state, approximately \$2 million may be available during that 20-year period.

For more information, visit
www.waitsfieldvt.us/sewer.

BOND VOTE

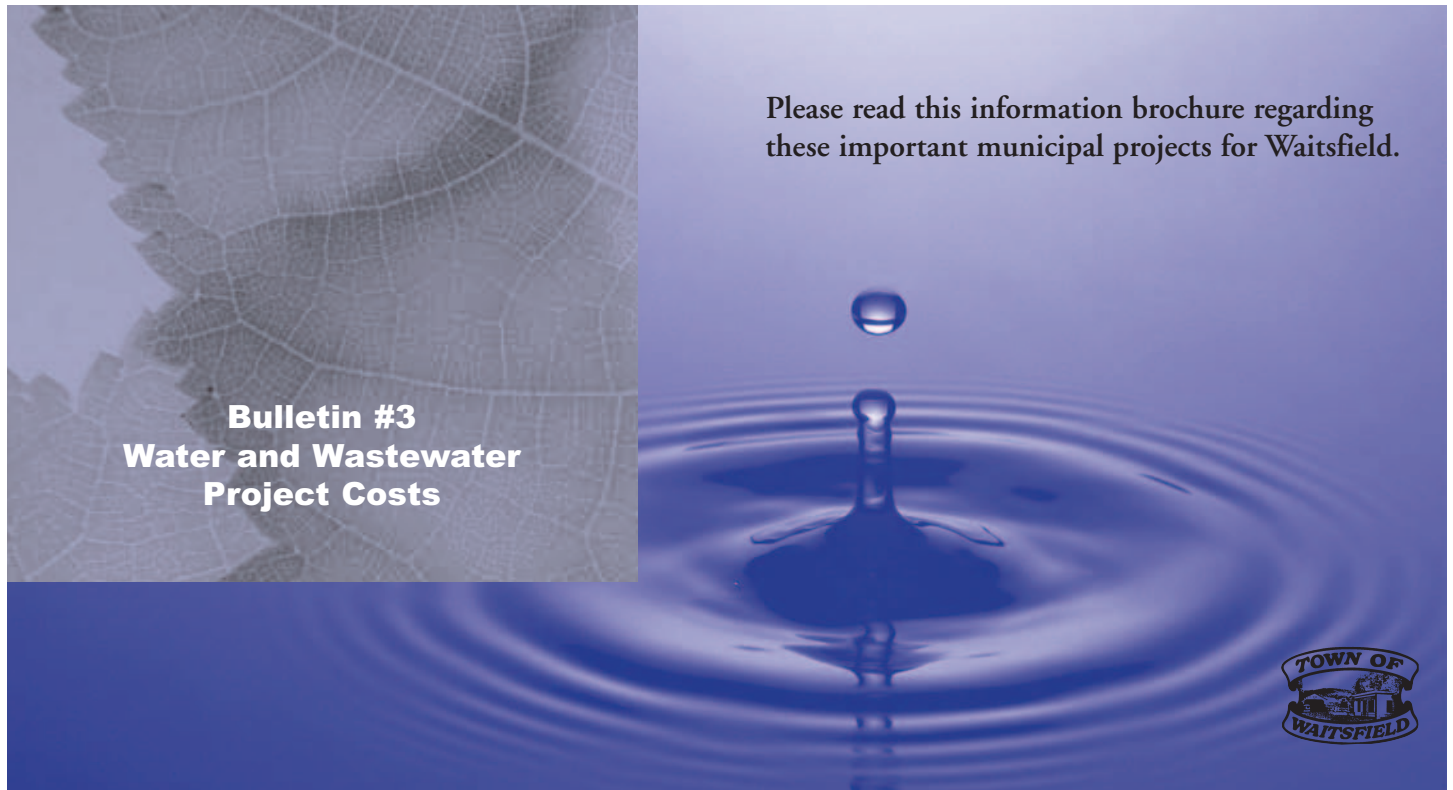
A bond vote scheduled for March 4 will ask voters whether they support three separate articles related to these projects. The first article asks whether voters will support authorizing borrowing up to \$7,590,000 for the municipal water system. The other two articles ask the same for Phase 1 and Phase 2 of the wastewater system, at \$5,620,000 and \$6,490,000 respectively. All three total \$19.7 million. Although a substantially large proportion of the project is expected to be paid by user fees, grants, and low-interest loans, the Town is required to ask voters to support a bond for the full project. From funding agencies' perspective, it is a form of collateral and is required before they will authorize a grant or lower-interest loan. A positive bond vote does not obligate the Town to proceed with the projects if the grants or other funding sources do not come through.

For More Information

If you have any questions, please contact Michael Cunningham, Municipal Project Manager (e-mail: mppm@madriver.com) or Valerie Capels, Town Administrator (e-mail: townadmin@madriver.com) at 496-2218. More detailed information is also available at www.waitsfieldvt.us/water-sewer.

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**Bulletin #3
Water and Wastewater
Project Costs**

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WAITSFIELD WATER AND WASTEWATER SYSTEMS