



Preliminary Engineering Report (PER) Summary

This document serves to provide a summary of the Town of Waitsfield Village Water & Wastewater Project Preliminary Engineering Report (PER), dated 12/1/23.

What is a Preliminary Engineering Report (PER)?

A PER is a planning document required by the State of Vermont to obtain financial assistance for the development of wastewater and drinking water projects. A PER describes a proposed project from an engineering perspective, identifies the need for the project, analyzes alternative solutions, and estimates project costs. Ultimately, a PER identifies the preferred alternative, and undertakes an itemized cost estimate and life-cycle cost analysis of this alternative.

What is Waitsfield's PER all about?

The Town of Waitsfield, with the support of its Water & Wastewater Feasibility Study Committee, retained engineering consultant DuBois & King in 2022 to undertake a [Water and Wastewater Feasibility Study](#) to explore options for wastewater solutions and potential expansion of water service for Irasville and Waitsfield Village. After completion of the study, the Waitsfield Selectboard authorized DuBois & King in January 2023 to undertake a PER that further studied specific scenarios identified in the Feasibility Study. The resultant PER consists of 7 sections: Project Planning, Existing Facilities, Need for Project, Alternatives Considered, Selection of Alternative, Recommended Alternative, and Conclusions. The final PER, entitled "[Preliminary Engineering Report for the Town of Waitsfield Village Water and Wastewater Project](#)," was approved by the VT Department of Environmental Conservation (DEC) on 12/20/23.

How much did we pay for the PER?

The Feasibility Study and PER were completed at no cost to Waitsfield taxpayers. The combined cost, just under \$200,000, was fully funded by the DEC through its Clean Water State Revolving Fund Program.

Why does Waitsfield need a wastewater system?

The PER identified the following needs for a wastewater system in Waitsfield:

- To protect water quality in the Mad River, other streams, and wetlands;
- To protect our drinking water and human health where septic systems are close to water wells;
- To offset the economic hardships of replacing aging and/or failing septic systems; and
- To address the community's need for future housing development and economic activity.

What type of wastewater system does the PER recommend?

The PER analyzed multiple alternatives to address the Town's wastewater needs, and ultimately recommended a wastewater collection system to serve Irasville & Waitsfield Village (consisting of the Irasville Commercial, Village Business, and Village Residential Zoning Districts). Wastewater treatment and disposal are recommended to take place south of Irasville at the town-owned and undeveloped Munn Site, located on the corner of VT Route 100 and Kingsbury Rd. To accommodate anticipated wastewater flows, a multi-stage treatment facility is proposed to treat all wastewater and remove nitrogen and phosphorus. The PER estimates that the Munn Site has a maximum net wastewater treatment and disposal capacity of 89,000 gallons per day.

Who will the proposed wastewater system serve?

The PER identified the following priorities for connection to the proposed wastewater system:

- Existing properties with leach fields that are:
 - 40 or more years old;
 - located in a mapped floodplain;
 - located in the River Corridor;
 - Located within well shields for existing private and public drinking water wells; and
- Future Capacity to accommodate new housing development and economic activity.

The proposed wastewater project provides replacement wastewater treatment for 105 existing properties with leachfields greater than 40 years old and/or located in a floodplain, in a River Corridor, or in a drinking water well isolation shield. These priority wastewater needs total an estimated 65,000 gallons per day (gpd), equal to 73% of the available capacity. The remaining 27%, equal to 24,000 gpd, would be available to support new housing and commercial development.

How much will the proposed wastewater system cost?

The PER's Opinion of Total Project Capital Cost for the proposed wastewater project is approximately \$15 million. The Town is pursuing multiple federal and state funding opportunities that could cover a majority of this cost. If awarded, these federal and state grants and subsidies would ensure that the Town can provide wastewater services to the homes and businesses that connect to the new system at an affordable cost.

What about the existing water system?

In addition to wastewater disposal, the PER also explores opportunities for connecting remaining properties with private wells to the existing Town water system. The Town water system was completed in 2012 and currently serves 64 properties in Irasville and Waitsfield Village. The PER identified an additional 46 potential water service connections.

The PER's Opinion of Total Project Capital Cost for proposed village water connections is \$1,071,800. As there are limited opportunities for grant funding to finance the connections of properties, the Town is investigating options to self-finance the remaining water system connections in the Water Service Area.

What's Next?

In January 2024, the Waitsfield Selectboard authorized the Village Water & Wastewater Project to commence with 30% Final Design of the wastewater system proposed in the PER. This design work will be completed by June 2024 at no cost to Waitsfield taxpayers, same as the PER. DEC's Clean Water State Revolving Fund will pay \$153,674, or 84% of the cost, with the Town utilizing \$28,674 of its remaining municipal ARPA funds to cover the remaining 16%.

In the 30% Final Design phase, consulting engineer DuBois & King will select an advanced wastewater treatment facility vendor, perform detailed design of the wastewater conveyance system, and detailed design of connections within Waitsfield Village. In recognition that landowner input is necessary for furthering project design, the Waitsfield Wastewater Planning Project Team will undertake outreach to all property owners within the proposed wastewater service area (Irasville & Waitsfield Village) as well as town-wide community engagement efforts.

If you have questions or comments about the Waitsfield Wastewater Project, please contact Annie Decker-Dell'Isola at wastewateradmin@gmavt.net or (802) 496-2218 ext. 4.

<https://www.waitsfieldvt.us/waitsfeld-community-wastewater-project/>