Waitsfield Wastewater Planning Project

90% Preliminary Engineering Report (PER) Recommendation & Next Steps

Waitsfield Selectboard Meeting

Monday, June 5, 2023

- Chach Curtis, Wastewater Engineering & Technical Team, Waitsfield Selectboard
- Annie Decker-Dell'Isola, Wastewater Project Coordination Team, Waitsfield Town Administrator
- Joshua Schwartz, Wastewater Project Coordination Team Lead, MRVPD Executive Director





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Context

- Phase 1A: Feasibility
 - Feb. '22 Jan. '23
 - Water & Wastewater Feasibility
 Study Committee (WWFSC)
 - Feasibility Study
- Phase 1B: Preliminary Engineering
 - Jan. Jun. '23
 - Planning Project Team Structure
 - Preliminary Engineering Report (PER) & Environmental Information Document (EID)

90% PRELIMINARY ENGINEERING REPORT

for the

TOWN OF WAITSFIELD

WATER AND WASTEWATER FEASIBILITY STUDY

June 1, 2023

Project Number 227947

Prepared for:

Town of Waitsfield

4144 Main Street Waitsfield, Vermont 05673

prepared by:

DuBois & King, Inc.

27 Center Street Brandon, Vermont 05733 (802) 465-8396 Jonathan Ashley, P.E.

> DuBois EKing

90% Report

TOWN OF WAITSFIELD WATER AND WASTEWATER FEASIBILITY STUDY

November 27, 2022

Project Number 227947

Prepared for:

Town of Waitsfield 4144 Main Street Waitsfield, Vermont 05673

Prepared by:

DuBois & King, Inc. 27 Center Street Brandon, Vermont 05733

(802) 465-8396 Jonathan Ashley, P.E.



Needs Analysis (pg. 12)

Health, Sanitation, & Security

- Protecting water quality in the Mad River and area wetlands.
- Removing current conflicts between well shields for existing potable water supplies and existing on-site leachfields for the protection of human health.

Aging Infrastructure

 Providing a replacement wastewater option for lots with aging leachfields and spatial limitations for replacing their existing wastewater system when it fails. Without an affordable option to replace aging septic systems, existing lots with "grandfathered" systems that don't comply with current septic system standards may be challenged to put in a replacement system, which represents a threat to existing residential stock.

Reasonable Growth

• Providing infrastructure to support the development of affordable residential and general residential demand in the community, and facilitating growth within the community's planned growth area.

leachfields in the floodplain or river corridor

leachfields within well shields

64% lot constrained

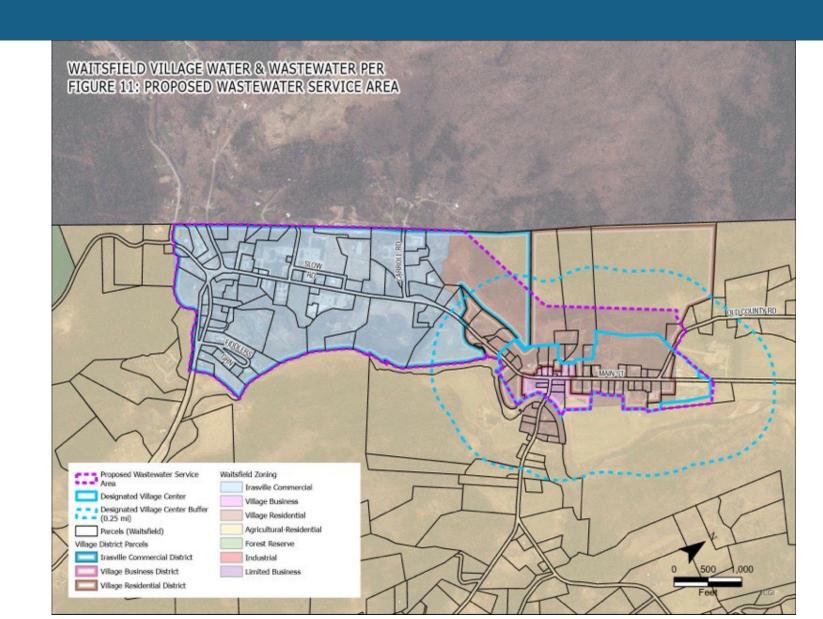
near or have exceeded their usable life (>30 years)

Facilities & Services 7.K-7

Recommended Alternative: Service Area

Service area to include the village zones identified in the Waitsfield Town Plan:

- Irasville Commercial District
- Village Business District
- Village Residential District
- ACCD Designated Village Center



Recommended Alternative: Village Water

- Properties connect to the water system on a voluntary basis.
- The engineer evaluated potential federal funding sources and determined that federal funding is not practical given requirements and limited grants and subsidies.

Recommended Alternative: Village Wastewater

- Munn site as primary treatment and disposal site, utilizing tertiary treatment.
- Priorities for current and future wastewater capacity of the Munn site:
 - 1. Existing properties with leachfields that are 40 or more years old;
 - 2. Existing properties with leachfields that are located in a mapped floodplain;
 - 3. Existing properties with leachfields that are located in the River Corridor;
 - 4. Existing properties with leachfields that are located within well shields for existing private and public drinking water wells; and
 - 5. Capacity to accommodate connections for future housing development and economic activity.

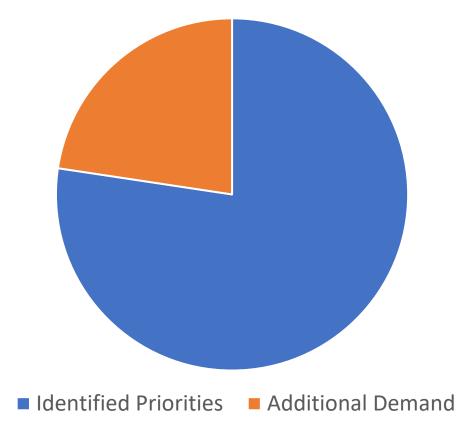
Recommended Alternative: Village Wastewater

"These priorities offer the most potential benefit in terms of water quality protection for the Mad River, other streams, and wetlands; drinking water and overall human health protection; offset of the economic hardships of replacing failing and low-functioning septic systems; and addressing the community's need for future housing development and economic activity."

Recommended Alternative: Village Wastewater

- Available disposal capacity of Munn site (after infiltration): ~84,000 gpd
- Wastewater demand of all existing village parcels: ~100,000 gpd
- Wastewater demand of identified priorities:
 ~65,000 gallons per day (gpd)
- Capacity available for additional demand:
 ~19,000 gpd
 - For example, 19,000 gpd = 35 one bedroom
 + 35 two bedroom + 8% increase of existing
 commercial wastewater flow

Recommended Demand Allocation for Munn Site w/Tertiary Treatment



Recommended Alternative: Opinion of Probable Cost

- The PER includes preliminary engineering design for the recommended alternative, including connections, the conveyance pipe, treatment and disposal, a project schedule, necessary permits, and a total project cost estimate.
- Total project cost estimate:
 - Wastewater (tertiary treatment at the Munn site)
 - \$15,657,700
 - Water System (connect all existing eligible users)
 - \$1,071,800

Funding Strategy: Village Wastewater

- Significant grants & subsidies are needed to provide affordable user rates.
- The Project Team's goal is to secure a mix of grants and loan funding to result in a user rate comparable to the Waitsfield Water System.
- To date, all project funding has been forgivable loans through the Clean Water State Revolving Fund.
 - \$199,418 has been loaned to date (45% under estimate)

Funding Strategy: Opportunities

- The Funding Team is actively pursuing the following funding opportunities:
 - \$10.4 million through Senator Sander's FY23 Congressional Discretionary Spending
 - \$3.0 million through the Northern Borders Regional Commission Catalyst Program
 - ~\$125,000 CWSRF Phase II Design subsidy
- Other potential sources:
 - Village Water Wastewater Initiative (ARPA) (\$TBD)
 - Loans and grants through USDA (\$TBD)
 - Construction loans and grants through CWSRF (\$TBD)
 - ACCD Community Revitalization & Recovery Program (\$TBD)

Next Steps: Design Funding

- The estimated cost of Phase 2 Final Design based on the draft PER is \$709,300.
- D&K recommends three phases for Final Design:
 - 30%: \$213,000
 - 60%: \$213,000
 - 90% + Final Design: \$283,300
- The Project Team recommends applying for the available CWSRF subsidy for Step 2 Design in FY24 (July 1, 2023), potentially up to \$125,000
 - It's possible this subsidy would be available again in FY25 (July 1, 2024) at the same amount
- The Project Team and Selectboard will need to determine how to fund each phase of design based on the funding avenues available at that time

Next Steps: Upcoming Meetings

- Mid-June
 - PER Finalized
- June 26th
 - Selectboard review and authorize submittal of CWSRF Step 2 Final Design Funding and updated Engineering Services Agreement with D&K for 30% Design
- June 30th
 - CWSRF Step 2 Design application deadline
- TBD: Finding of No Significant Impact Hearing (FNSI)

Action Items

- Accept findings and recommendations of the 90% Preliminary Engineering Report
- Next Step for Wastewater Project Planning teams:
 - Authorize the Project Coordination Team and Funding Team to work with funding agencies to explore options for self-funding the remaining connections to the water system and bring a summary of options back to the Selectboard for further consideration.
 - Authorize the Project Coordination Team and Engineering & Technical Team to draft a 30% Design Engineering Services Agreement with Dubois & King, including an application to DEC CWSRF for Step 2 Design subsidy, for review and approval by the Selectboard at the June 26, 2023 Selectboard meeting.

Questions / Discussion

The Project Team and engineer are available to answer any questions the Selectboard or community might have.