

Water and Wastewater Capacity Assessment for Huntington's Villages

With support from the Huntington Selectboard, the Water and Wastewater Working Group was formed in January 2011. The Town secured a planning advance from VT Department of Environmental Conservation (VT DEC) to conduct a water and wastewater capacity assessment for Huntington's three villages—including all of the land within the Lower Village, Huntington Center, and Hanksville village zoning districts, as well as a 50-foot buffer zone outside each district.

The objectives of the study were to:

- Identify current water and wastewater issues and needs of residential, public, and commercial structures in the three village districts;
- On a village district level, identify current water and wastewater capacity; and
- Assess options for expanding water and wastewater capacity for each village district, along with the scale/quantity of additional capacity (build out scenarios) and associated costs.

Huntington has two significant natural resources: a high-yielding gravel groundwater aquifer beneath portions of the Lower Village and Huntington Center that is generally protected from sources of contamination by a thick layer of silt, and a series of sandy, gravelly deposits near the modern ground surface that are often suitable for in-ground wastewater treatment systems.

Properties in the villages currently are served primarily by individual, on-site water supplies and wastewater treatment systems. There are a few shared water and wastewater systems, like the drilled gravel well that serves the Huntington Fire District No. 1 (Roberts Park Road and Huntington Woods area), and the in-ground leachfields that serve houses on Agnes Drive in the Lower Village and Sunrise Drive in Huntington Center.

The primary water supply issues identified in this study were low-yielding bedrock wells (especially in the Lower Village), along with scattered reports of water quality issues that included aesthetic (color, taste, smell) or bacteria (coliform) contamination concerns, affecting about 20% of the wells in all three villages. The primary wastewater capacity issue identified in this study was space-related limitations for the replacement of existing wastewater treatment (septic) systems—especially on the small parcels near the Main Road-Bridge Street intersection in the Lower Village and the Main Road-Camels Hump Road intersection in Huntington Center. Property owners in these space-limited areas would need access to additional wastewater capacity, and sometimes to additional water capacity, to change the uses or their properties or expand current uses. Owners who need to replace their current systems, but lack sufficient space to do so, will likely be limited to the current use of their property. Lack of wastewater capacity due primarily to small lot sizes and wastewater system/water supply buffer conflicts is the over-riding infrastructure issue from a future planning perspective, especially for small parcels in the Lower Village and Huntington Center. It affects a larger proportion of properties than any of the other issues identified (40-45% of properties in these two villages), and is a more challenging and costly issue to address.

The study confirmed that a range of community water supply and wastewater treatment options can be constructed in the village districts to address existing issues and needs, and to support future development. Both water and wastewater options can rely on conventional technologies, such as gravity-based community water distribution and in-ground (though large-scale) community leachfields, for wastewater treatment. These systems generally have minimal visual impacts (no large structures or water towers) and maintain open space. In all cases, the most passive, lowest-impact technologies feasible were used in developing the water and wastewater options. Three build-out scenarios were developed to illustrate how differing water and wastewater management options may impact land use and development

densities in the villages. Each of the build-out scenarios were assumed to occur over roughly the next fifty years:

- ***Do Nothing***: Continue one-acre minimum lot size in the village zoning districts; rely primarily on individual property owners to pay for and take care of water and wastewater systems; maintain existing water and wastewater infrastructure as it is, with the potential for future development limited to the estimated water and wastewater capacity available on each individual property.
- ***Solve Existing Village Problems Only***: Continue one-acre village zoning; provide Town-owned water and/or wastewater capacity to support current property uses in areas where water or wastewater issues are currently identified but with no allowance for additional capacity to accommodate future growth in these areas.
- ***Provide for Village Centered Vitality***: Implement smaller minimum lot size requirements, or perhaps even remove minimum lot size restrictions, in portions of what are now the village districts; provide Town-owned community water and/or wastewater infrastructure to support a denser development pattern in village core areas, to the extent this is possible given the carrying capacity of nearby soils and streams.

Each scenario results in different impacts on the number of new residences which may be built and where development in the village districts occurs. If the Town continues with current zoning and relies on individuals to take care of their water and wastewater systems (“Do Nothing” scenario), the total number of residences in all three villages could increase from 356 to 666, and commercial/municipal units could increase slightly (from 12 to 15). Nearly all future development would occur on the larger lots located near the edges of the villages, rather than in or near the core areas of the Lower Village and Huntington Center. The estimated cost for individuals to construct or replace water supplies over a 50-year period is \$5,288,000, and for wastewater systems it is \$9,179,000.

If the Town continues with current zoning but addresses some existing areas of need (“Solve Problems” scenario), the total number of new residences in all three villages could increase from 356 to 625 and commercial/municipal units could increase slightly (from 12 to 16). This scenario provides environmental benefits by addressing the needs of certain areas, such as Huntington Acres and Roberts Park, but nearly all future development would still occur on larger lots near the edges of the villages. The estimated cost range to construct the community water supply systems which would last for a 50-year period is \$2,855,000 to \$4,907,000, and for wastewater systems it is \$6,232,000 to \$9,058,000.

If the Town changes or removes lot size requirements in portions of what are now the village districts and provides community water and/or wastewater infrastructure (“Village Vitality” scenario) it can support a denser development pattern in village districts. Under this scenario the total number of new residences in all three villages could increase from 356 to 687 and commercial/municipal units could increase from 12 to 22. The additional commercial capacity, in particular, could be used to serve future uses like restaurants, which would otherwise be very challenging to build or attract. The estimated range of costs to construct water supply systems which would last for a 50-year period is \$7,190,000 to \$8,164,000, and for wastewater systems it is \$6,913,000 - \$10,461,000, depending on the systems selected.

The options the Town chooses will impact how the villages develop. Continuing with current zoning (“Do Nothing”) or implementing options only to address water quality or wastewater issues (“Solve Problems”) result in the vast majority of new residential development on larger lots near the fringes of the village zoning district. They do not provide capacity for future growth or development in the historic core centers of the Lower Village or Huntington Center. If more compact development in these centers is desired, adjustments to zoning and consideration of community water/wastewater infrastructure will be needed.

The final report contains information that can now be considered by the Selectboard and town staff, residents, and business owners in Huntington for implementation. While the consultant can recommend one scenario or set of alternatives over another, the real decisions lie with the community.