Before Tropical Storm Irene, with concerns about possible pollution issues and limitations on economic development, the West Windsor Selectboard hired the engineering firm of Aldrich + Elliott to conduct a water & wastewater needs assessment and feasibility study for the village of Brownsville. The study revealed that, as suspected, there are pollution issues affecting Mill Brook. In addition, because most of the lots in the village are small, existing on-site septic systems are within the isolation zones for existing water supplies, making well contamination inevitable and presenting significant health concerns. Due to these insufficient isolation distances, additional development in the village (including changes of use, accessory apartments, and new businesses) is not feasible unless a municipal sewer system is constructed and connected to the existing resort sewer system, which the town is planning to acquire.

Tropical Storm Irene exacerbated the situation, flooding the fire station, washing away its leach field and damaging its water supply. The septic tank and leach field for a private home were compromised as well. The pipe connecting the Brownsville General Store to the Ascutney Mountain Resort's water system was severed but has been repaired. The pump house adjacent to the Fire Station, which pumps water for the Resort's snowmaking system and supplies water for fire-fighting in the village, was damaged. A private well inundated with flood waters was treated for contamination.

After evaluating eight water system alternatives and five wastewater system alternatives, Project Engineers Aldrich & Elliott (A&E) recommended constructing a wastewater system that connects to the existing resort wastewater system. The recommended system would consist of two 8" gravity sewer lines running along Route 44 and the Brownsville-Hartland Road to a pump station at the municipal office building. One line would start at the intersection of Route 44 and Seems Road, and the other would start at the Albert Bridge School. The pump station on the municipal building property would pump wastewater under Beaver Brook through a 6" force main to an 8" gravity sewer along Route 44 from the east side of the brook to another pump station near the firehouse. A 6" force main from the firehouse pump station east along Route 44 to the existing Ascutney Mountain Resort Pump Station #1 would involve a directional boring under Mill Brook. The project would include the cost of connecting existing buildings to the sewer system. By eliminating on-site septic systems from the floodplain in the village, the project will prevent future damage to wastewater systems, contamination of water supplies, and pollution of Mill Brook.

As noted above, one of the pump stations for the recommended sewer system would be located on firehouse property. The firehouse sits on a 1/3-acre lot. Because the on-site septic system for the firehouse was damaged during Tropical Storm Irene, it is temporarily being served by a holding tank. There is one 8' x 22'area on firehouse property which would meet most of the setbacks required by the State Environmental Protection Rules (EPRs). However it would not be the required distance from the shallow well water supply that serves the firehouse and is therefore not recommended. If a municipal sewer system is not installed, it's possible that the state may allow the fire department to continue using a holding tank or install an Innovative/Alternative (I/A) system as a "best fix." However, the area where an I/A system would go is the same area where the second pump station for the town sewer system would go so the two projects are mutually exclusive. Fortunately, the Fire Department's Board of Trustees has agreed to allow the town to place the pump station on their property. If they had not agreed, the municipal system – as designed – could not be built and the other properties in the service

area, which are also too small to accommodate a replacement system, would have no affordable way to address their wastewater issues.

Without a sewer line to connect to, the only option for the owners of these lots is an expensive mound or innovative/alternative (I/A) system. A January 2013 study of the village of Brownsville suggested that a majority of the residents have incomes in the low to moderate range, which makes the cost of a mound or I/A replacement system prohibitive. Since then there have been changes in the guidelines for conducting income studies as well as changes in the ownership and occupancy of village housing units, so the study is being repeated with results expected in mid-January 2014.

In addition to meeting the wastewater needs of our low and moderate income residents, West Windsor hopes to promote economic development in the community. With the closure of the Ascutney Mountain Resort in 2010, West Windsor lost approximately 200 jobs and local businesses have suffered from the substantial drop in the number of visitors to the area. Although West Windsor is initiating a marketing effort to attract more visitors to our extensive recreational trail system, new and existing businesses will need wastewater infrastructure to provide the services typically associated with a tourism-based economy.

Over the past year, the need for this project has become more urgent. Since the ski area closed in 2010, many resort property owners are choosing to rent out their homes year-round. The conversion of seasonal homes to full-time residences has resulted in a 12% annual increase in school enrollment - from 68 students in 2011-12 to 85 students in 2013-14. According to the school's wastewater system and potable water supply permit (WW-2-1104-1), the school can accommodate a total of 133 children and staff. If enrollment continues to increase by 12% per year, the school will exceed its wastewater capacity in three to four years. In addition, because they do not have sufficient wastewater capacity to support a cafeteria, our local school does not have an on-site hot lunch program. Nineteen of the 85 students currently enrolled (22%) qualify for the free and reduced federal lunch program. The school would like to have a cafeteria and on-site lunch program to support the nutritional needs of children living below the poverty level and to provide jobs for cafeteria workers.

Initially, the Brownsville sewer expansion will support 33 equivalent users: 15 residential users, 4 commercial users, and 14 municipal/institutional users, including the school, church, fire station, historical society and Town Hall. Over the next 20 years, reserve capacity, in the form of unused allocated flows, will allow for approximately 305 additional equivalent users, including new housing units, businesses and accessory dwellings. Service will also be extended to our local library, which currently has no restroom facilities.

The sewer line and pump configuration recommended by Aldrich & Elliott addresses the short-term and long-term needs of the community while keeping user costs as low as possible. The total cost for the recommended solution is $2,017,000, which includes construction, engineering, contingencies, land acquisition, legal fees, administration, interest and other miscellaneous costs. $107,750 in the form of a planning loan from CWSRF has already been committed and used for necessary pre-construction activities including a Feasibility Study, a Preliminary Engineering Study, and a Phase 1A Archeological

Resource Assessment. With $500,000 in funding (requested) from the Vermont Community Development Program (VCDP) and a 35% pollution abatement grant ($456,400), the town would expect to bond for a total of $952,850, but would request voter approval for the entire $2,017,000, while exploring all other possible funding alternatives, including grants and loans through the USDA – Rural Development program. According to USDA – Rural Development guidelines, connected households should not pay sewer fees that exceed 1.5% of the median household income for the service area. In their Preliminary Engineering Report, Aldrich & Elliott estimated that the annual cost for a connected user would fall between $889 and $937, depending on the amount of grant funding received. Even if the town were to receive all grant funding requested, the user cost would still be in the $800 to $900 range, which is on the high end of being affordable. It is crucial, therefore, that the town receive as much funding as possible through Vermont's Dry Weather Pollution Abatement Grant Program.