

## **Press Release 12-13-10**

### **Wolfeboro's Rapid Infiltration Basins**

### **Project Status Report**

The Town of Wolfeboro has recently prepared and submitted a detailed report documenting the operation and current status of the Rapid Infiltration Basin (RIB) site.

The report provides a brief history which led up to selecting the 35 acre site located in the northwest corner of Wolfeboro along the Town line with Tuftonboro, off Route 109a. This RIB site was the subject of detailed studies by Wolfeboro's consulting engineer, Wright-Pierce, who prepared and obtained NHDES permits and approvals in 2007. Construction of the RIBs began in 2008 and was completed in 2009. Operation of the RIBs commenced on March 3, 2009.

The report goes on to cite other Wastewater Treatment Plant Upgrades that were implemented in 2007 & 2008 and allowed Wolfeboro to make process control changes (cyclic aeration leading to Biological Nutrient Removal) resulting in a much improved treated effluent quality. Treated effluent discharged at the RIB site since March of 2009 has, on the average, been approximately 3 mg/l of total Nitrogen, which is outstanding and well below the permit limit (10 mg/l) and what was originally expected to be discharged as the basis of design.

In addition, Wolfeboro voluntarily took proactive steps to develop a more rigorous and detailed water quality monitoring program, to obtain a better understanding of Nineteen Mile Brook both prior to and following the start up of the RIBs.

The report explains the "unexpected issues" which have occurred on the site following start up in the spring of 2009. Treated effluent which is discharged into one of 5 RIBs, percolates vertically through 35 feet of natural unsaturated sand before it blends with the regional groundwater table. The groundwater then travels in a southwesterly direction and spreads out. The "unexpected issues" occurred in what is referred to as the Western and Central Groundwater Discharge areas. These areas are mostly natural wetlands with intermittent streams, created by groundwater as it comes to the surface. These two areas are approximately 500 feet from the RIB basins and over 80 feet below the RIB bed bottom.

The "unexpected issues" include the development of sink holes, slope failures and sand migration in the upper elevations of the groundwater discharge areas. Wolfeboro promptly reported these "unexpected issues" to the NHDES; prepared a report (August 12, 2009)

documenting the issues and responded to NHDES questions; and met with the State in September of 2009. Wolfeboro committed to additional testing and monitoring with a follow-up report. The December 6, 2010 report meets that commitment and includes all the data collected prior to and since the RIB went into service.

Based on Wright-Pierce's engineering, NHDES approvals and the detailed surface and groundwater data collected to date and included in the December 6, 2010 report, Wolfeboro remains confident that the RIB site is compliant with its Groundwater Permit. That being said, Wolfeboro is concerned about the "unexpected issues" and resulting impacts on Nineteen Mile Brook and will continue its proactive management of the RIB site. These "unexpected issues" and impacts are discussed in detail in the report, as well as Wolfeboro's response to mitigate these impacts, which includes limiting RIB discharge to no more than 400,000 gallons per day (gpd). This limit of 400,000 gpd is adequate to meet current flows but, is below the permit limit of 600,000 gpd.

Additionally, the report states Wolfeboro has requested NHDES approval to renew its Groundwater Spray Irrigation Permit, which was submitted on November 10, 2010. This permit application reduces the existing spray area by over 50%, removes all spray piping from the Mirror Lake Watershed and removes piping and spray heads from surface water locations. Also, with a different strategy of spraying (intermittent) Wolfeboro is confident that if the need arises, it can operate the Spray Irrigation System without runoff and remain permit compliant.

Wolfeboro further proposes to continue an enhanced sampling and analytical plan at the RIB site to monitor compliance with its Groundwater Permit and to assess the site's ability to handle existing and potential future RIB discharge flows. To that end, Wolfeboro will provide NHDES with an updated status report next year prior to December 1, 2011.

A complete copy of the report (30 pages of narratives and over 100 pages of tables, figures and appendices) can be viewed at the Public Works Office or a copy can also be viewed from the Town's web page at [www.wolfeboronh.us](http://www.wolfeboronh.us)