



South Londonderry River and Homeowner Survey

November 3, 2008

Completed by

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and
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**West River Watershed Alliance
South Londonderry River and Homeowner Survey**

To Londonderry Conservation Commission:

The following is a report on work completed over the summer of 2008 as was agreed upon by the West River Watershed Alliance (WRWA) and the Town of Londonderry to source out the high levels of E.coli bacteria as documented by WRWA's Water Quality Monitoring Program.

Tasks

- Completed an approximate one-mile long survey of the river to find and map out all of the outflow pipes that come into the river. Please see attachment A for a list of all pipes found and documented.
- Placed four optic brightener sampling pads in pipes upstream of the sampling site that has shown high results for E.coli bacteria which is located just upstream of the Route 100 bridge.
- Contacted all homeowners with property along the river for a half of a mile upstream of the said sampling site by mail or telephone to ask a standard list of questions about the maintenance of their septic systems.

Outflow Pipe Survey

Marie Caduto, Rebecca Salem, and many members of the Londonderry Conservation Commission conducted this survey on two separate days during the summer of 2008. Participants walked in the streambed to locate and document the presence of all pipes that enter the river for a half of a mile up and down stream of the Route 100 bridge. Please see attachment A.

Optic Brightener Sampling

Rebecca Salem collected all of the sampling pads on October 2nd. All of the pads were wet when they were collected and none of them revealed the presence of optic brighteners when put under a black light. Notes about the location and condition of pads are included in the previous results section.

Conclusions and Next Steps

This project has been successful in providing many more clues and some great tools for finding the source of E.coli bacteria. First, the data collected about the location, type and condition of the outflow pipes will help us to design future research studies. For example,

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WRWA and the ANR will use this information to determine where to put future sampling sites, it will allow us continue optic brightener testing and gives us a clear map of all vectors for point source pollution into the river.

Second, the fact that we didn't find any optic brighteners coming from the four pipes sampled is a very good sign and helps to narrow down the source of pollution. Truly, this is just an initial survey and should be conducted again next year in late summer or early fall more extensively.

Finally, the homeowner survey was a good beginning to communicating with the residents along the stream bank about this issue and how they can take a part in influencing its outcome. WRWA would like strongly recommend that the Londonderry Conservation Commission contact Larry Brown or another septic maintenance company.