

Henderson/Nisqually Shellfish Protection District

Nisqually Reach Septic System Dye Testing 2006/2007

Completed by

Thurston County Environmental Health Division

In response to high levels of fecal coliform bacteria in shoreline water samples taken during the 2005 Shoreline Survey of the Nisqually Reach Shellfish Growing Area conducted by the Washington State Department of Health in 2004 and 2005, Thurston County Environmental Health conducted additional sampling and dye traces of septic systems in 2006 & 2007.

Septic System Dye Traces

Thirty six homeowners were contacted in the area between Walnut Road NE and 78th Ave. NE asking for permission to conduct a dye trace. Of those thirty six, dye traces were conducted on eighteen septic systems. Six septic systems were found to be failing. Of the six failures, three were fully repaired and one was partially repaired (approved repair but record drawing has not been accepted). Two have not been repaired. They are tax parcel #s 11910221100 and 11915120101. Active enforcement by this Department of these failures continues.

Shoreline and Upland Water Sampling

Below are highlights of follow up investigation to high fecal coliform water samples. Map 1 shows most samples taken in 2006 & 2007. Other results are shown on Maps 2 and 3.

Another failing septic system was found during shoreline and upland sampling at the Puget Marina, tax parcel # 11910221300 as a follow up to the 40,000 fecal coliform result shown on Map 1. A map of the samples taken is attached. (Map 2) Active enforcement by this Department of this failure continues.

Further investigation into high fecal coliform bacteria results during a dye trace at tax parcel 11910311601 in 2006 showed that the high bacteria was originating upland of the property. There are wetlands and a pond upland of this parcel. In 2007, one upland dye trace was conducted and additional samples were taken to attempt to track down the source. Map 3 depicts the samples taken. The dye trace was negative and therefore did not identify the septic system as the source of the high concentrations of bacteria. The bacteria result in the samples were much lower than those taken in 2006 with the exception of one taken from flowing water in a ditch on 78th Ave. NE. This was one of the test sites for the dye trace and was negative for dye but still high in fecal coliform bacteria. The water from this ditch flows down to the beach. It is possible that the high fecal coliform levels came from animals.

Complaints were received of an agricultural site on an upland parcel (tax parcel # 69703300100) on Walnut Road NE where the property owner was allowing cattle to overgraze the small pasture next to the road ditch that drains directly to Nisqually Reach. The property owner has since implemented a Thurston Conservation District Conservation Plan where the animals are confined during the winter and the pasture is being managed correctly.

One sample taken from a beach bulkhead off of 78th Ave. NE was high in fecal coliform bacteria in 2006 (1200 f.c.) but low in 2007 (<5 f.c.). It is believed that the owner is no longer a full time resident. This site should be resampled. It is near the shellfish growing area.

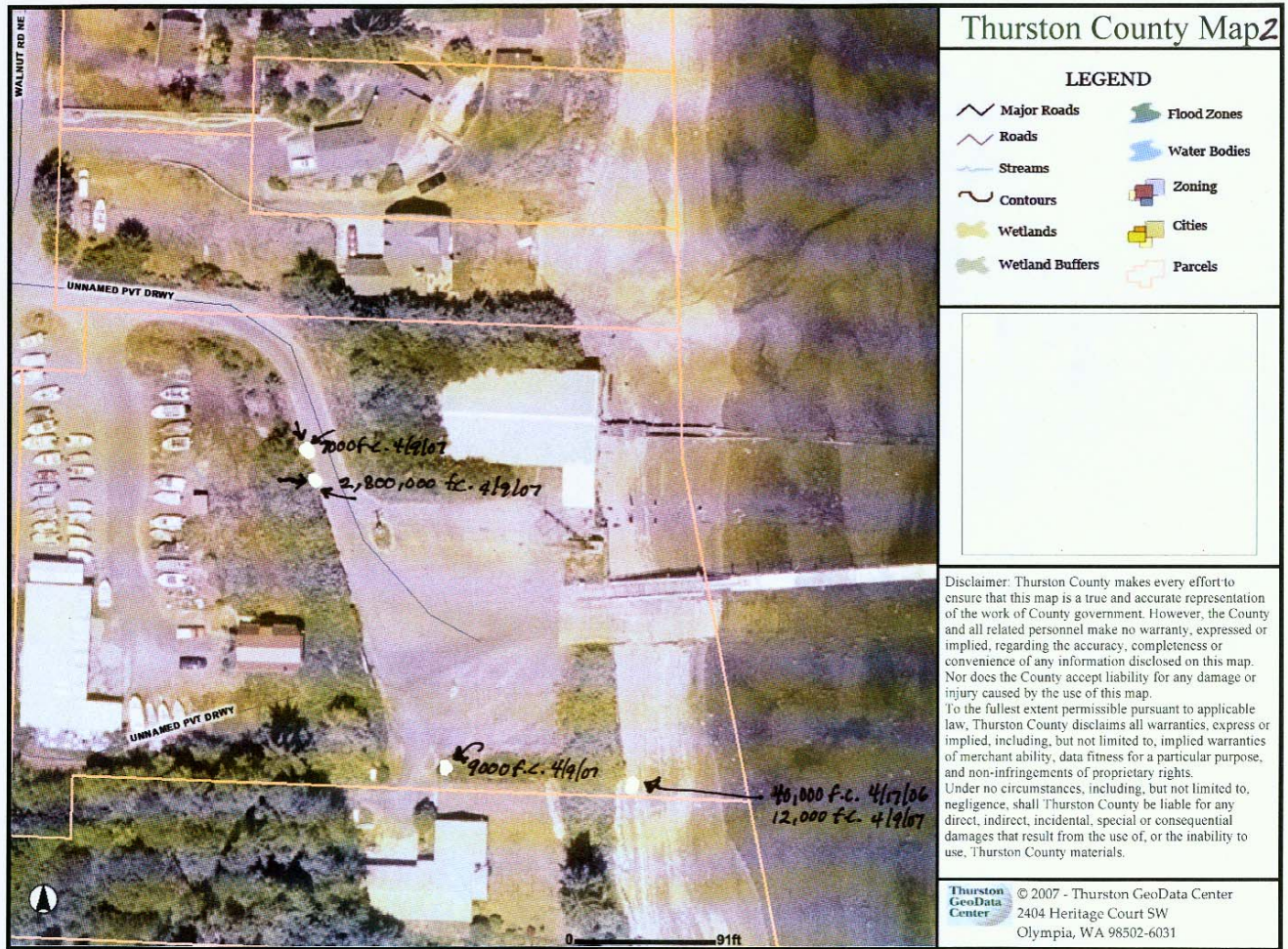
All other high concentrations of fecal coliform bacteria shown on Map 1 can either be attributed to failing septic systems which have been corrected or are in the process of being corrected.

Failure Status Update - 3/16/10

The septic system failures identified through the 2006/2007 dye tests have all been corrected.

#s refer to fecal coliform/100 ml







Thurston County Map3

LEGEND

- Major Roads
- Roads
- Streams
- Contours
- Wetlands
- Wetland Buffers
- Flood Zones
- Water Bodies
- Zoning
- Cities
- Parcels

295 f.c. - 9/21/06, 20 f.c. - 1/30/07

180 f.c. 8/31/06, 1220 f.c. 1/30/07

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Dyetrace done 2/6/07 - Results were negative for dye