

Shoreline Survey Reconnaissance Report

Three Priority Sub-Watersheds of the Cape Neddick River

Leslie Hinz, Assistant Local Plumbing Inspector

Steve Burns, Community Development Director

York Community Development Department

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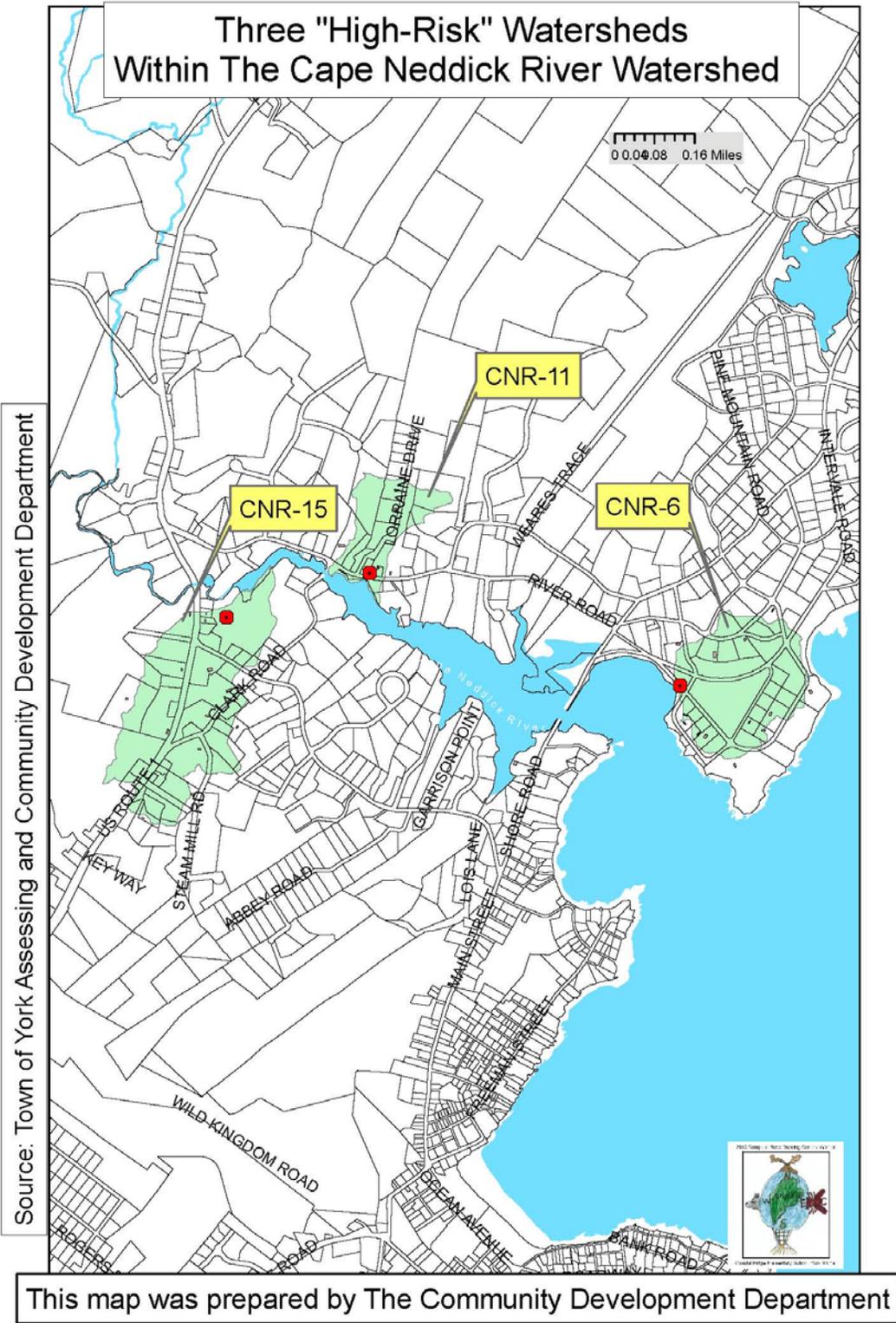
Weather: sunny and warm for the time of year. Moderate rain yesterday and warm temperatures today are contributing to significant snow melt and lots of runoff.

Today we toured 3 sub-watersheds of the lower reaches of the Cape Neddick River. The 3 sub-watersheds visited are upstream from the following water quality testing sites:

- CNR-6 The test site is located adjacent to Cape Neddick Beach at the culvert under Wanaque Road. This is the outfall of a large wetland owned by the Town. Surrounding this wetland are approximately 2 dozen homes.
- CNR-11 This test site is located on the north side of River Road just east of the Clark Road Bridge. A small stream drains a relatively small watershed area with less than a dozen homes.
- CNR-15 This test site is located in the stream which flows to the northeast from the intersection of Route One and Cape Neddick Road. This outfall comes under these two roads and drains a large mixed-use area with about 3 dozen homes and close to a dozen non-residential sites. The exact boundary of this sub-watershed is still being evaluated.

These sub-watersheds were identified by the staff of Maine Healthy Beaches as being the most likely among many tested to be polluted by human sources. This was determined by combined analysis of water quality tests for both bacteria and optical brighteners. Bacteria in the Cape Neddick River has been found to come from human, pet, livestock, wildlife and waterfowl sources. However, optical brighteners, a component in many detergents used to make your whites whiter, are always an indication of human-source pollution. Based on this external prioritization, it was agreed last fall that the Community Development Department would focus resources here first in efforts to clean up the Cape Neddick.

Three "High-Risk" Watersheds Within The Cape Neddick River Watershed



Findings:

- CNR-6 We parked at the test site on Wanaque and walked in to Anbelwold Circuit and Pequanac Place. We noted 4 new homes and 1 additional new septic system. Also noted one house under construction. Nothing appeared out of the ordinary. When we returned to the car, we stood at the sampling site for a bit and just looked around. The site is the outfall of an extensive wetland, and we thought it might be good to somehow get some water samples in a couple spots within the wetland to see if we might be able to identify the direction from which the optical brighteners are coming from. It also seemed that the most likely source of pollution would be the closest houses – in this case the one at the end of Algonac Ave looked the closest and the most likely. We drove through the upper portion of the sub-watershed along Agamenticus Ave and nothing there stood out. We parked and walked down Algonac Ave and we found what appeared to be a spring in the ditch on the east side of the road a short way in from Agamenticus Ave, well before the house at the end of the road. The water looked clean and there was no odor. Downstream it ran through a couple green plastic pipes, and below the second it fell into a pool and there the water became foamy. This was the only thing we found which seemed unusual.
- CNR-11 We drove this area, but didn't bother getting out of the car because it's such a small area. There is one new house (#8 Lorraine Drive) and another under construction (#4 Lorraine Drive). There is a small flow or stream to the east of Lorraine Drive. The test site is in this stream just above River Road. There are a couple houses very close to the test site, and not much above it so we think we're going to find the problem very close to the site.
- CNR-15 We focused our efforts in the lower part of this sub-watershed, near the testing site. We parked along Cape Neddick Road and walked in to the stream in the approximate area of the testing site. From there we walked upstream towards the intersection. There was some old debris along the northwest bank of the stream – as old as the remains of a Model-T era car with the wooden spoke wheels. There are 4 houses on small lots at the top of the stream bank to the northwest, but there were no obvious signs of pollution. We walked back out and around to the intersection, and walked down to the outfalls of the two culverts which feed this stream. The main flow comes from the west across Route One, and a lesser flow from the south. These outfalls could be tested independently from the downstream site to bracket this area and identify any problems in the immediate vicinity of the sampling site. We looked briefly at the flow across Route One and found nothing unusual, noting that this stream drains the bulk of the sub-watershed. If water coming into this pipe is

polluted, the next obvious upstream test sites would be at the west-flowing culvert under Route One just north of Clark Road, and under Emerald Lane. When we were walking back up Cape Neddick Road we noticed a large circular hole in the roadside snow bank along the south side of the road. Assuming it was a catch basin, we crossed to take a look. To our surprise, we found a small white plastic pipe with a steady discharge. Water coming out was foaming in the small pool below the pipe, and the water drained directly into the roadside ditch. This needs to be tested. The pipe is located directly in front of the third tree from the top of a short line of landscape trees along the road on the border of the property of the corner property. It should also be noted that we are still having problems identifying the upper sub-watershed boundary in the vicinity of Steam Mill Road.