

Title: Big Creek and Cherry Creek Cattle Exclusion Projects

Michigan AUID Number: The beach at Forester County Park = 040801040202-03 (formerly WBID 210102F)

GRTS Number: 975474040 – Project 16

Opening Paragraph: Big Creek and Cherry Creek are small streams draining directly into Lake Huron, north of Port Sanilac in Sanilac County. Immediately south of the creek mouths is a public beach at Forester County Park, on Lake Huron. Approximately 50 cattle had access to Big Creek and 50 to 75 cattle had access to Cherry Creek, resulting in water quality standard violations for *E. coli* bacteria at the beach. Conservation easements, fencing, and other management practices excluded the cattle from the stream and lowered bacteria concentrations at the beach so that water quality standards are now being achieved. The beach was on Michigan's 303(d) list in 2004 and 2006, and removed from the list in 2008.

Problem: Cattle access to Big Creek and Cherry Creek resulted in water quality standard violations for *E. coli* bacteria at a nearby public beach in Forester County Park, on Lake Huron.

Project Highlights: The cattle access problems were discovered during a 319 NPS stormwater grant-funded watershed inventory performed by the Sanilac Conservation District. A farm on Big Creek had approximately 50 cattle grazing in a ravine near the creek, and a farm on Cherry Creek had approximately 50 to 75 cattle pastured in and near the creek on a 35 acre pasture.

In the spring of 2006 a Section 319 grant, a USDA Continuous Conservation Reserve Program grant, and landowner contributions resulted in:

- cattle relocation away from the streams
- tree planting on most of the 23 acres of ravine along Big Creek
- purchase of a 25 acre conservation easement on Cherry Creek
- 10 acres of no-till planting
- 700 linear feet of filter strip
- 1,500 linear feet of bank stabilization
- installation of approximately 1,000 feet of fencing
- installation of rain gutters on nearby farm buildings and a retaining wall (Figure 1) to divert precipitation away from the feed lots and into the filter strip
- tree planting on most of the Big Creek pasture

Results: Summertime *E. coli* concentrations at the Forester County Park beach prior to the management practices were installed often exceeded the daily total body contact standard of 300 colonies per 100 mL (Figure 2). Since the cattle

were excluded from the stream and the other management practices were instituted, *E. coli* concentrations have not exceeded the standard.

Partners and Funding: The Sanilac Conservation District received a Section 319 watershed implementation grant of \$378,924, and contributed a match of \$126,855. The USDA Continuous Conservation Reserve Program also contributed \$17,000 to the Big Creek project.

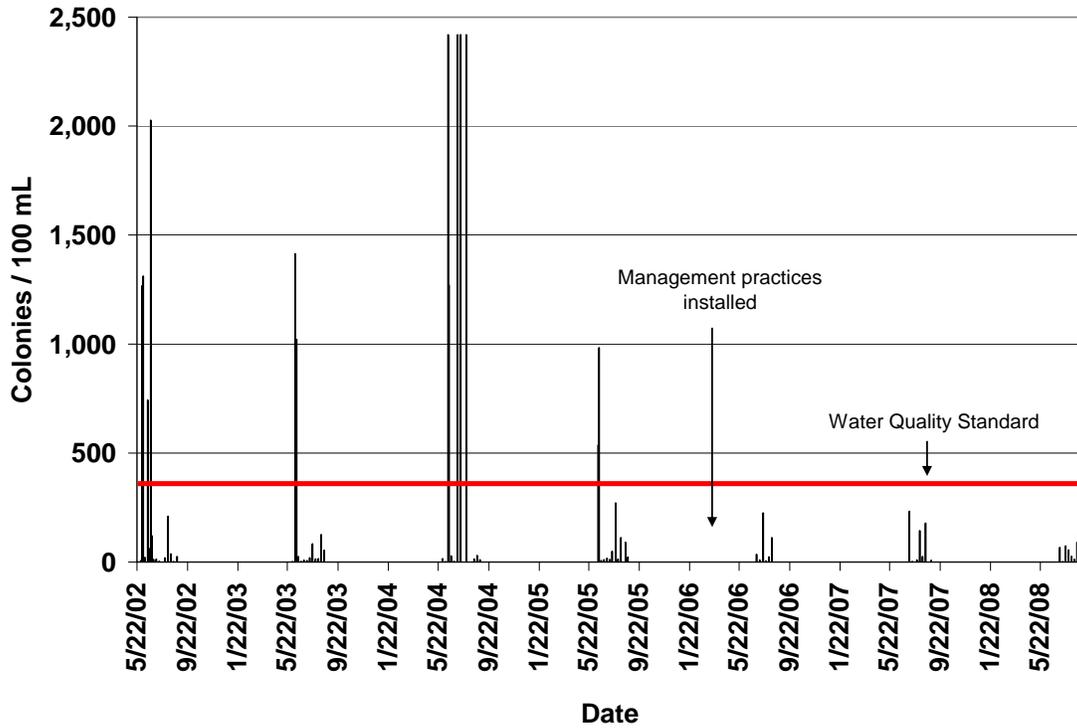
Photographs:

Figure 1. Retaining wall and graded pasture, to divert precipitation to a filter strip along Cherry Creek.



Data:

Figure 2. *E. coli* concentrations at Forester County Park Beach, Before and After Cattle Exclusion



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