

**From:** [Roesler, Craig P - DNR](#)  
**To:** [Collins, Patrick J - DNR](#); [Sager, John E - DNR](#); [Saari, Christopher A - DNR](#)  
**Cc:** [Hagen, Cherie L - DNR](#); [Steiger, Matthew B - DNR](#)  
**Subject:** Results from April 30th fish surveys, etc. at Newton Creek  
**Date:** Tuesday, May 1, 2018 3:33:31 PM  
**Attachments:** [Newton Creek 2018 April 30 fish and bug field notes.docx](#)

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See attachment.



Water Quality Biologist

Monitoring Section

Bureau of Water Quality

Wisconsin Department of Natural Resources

(☎) **phone:** (715) 635-4076

(☎) **fax:** (715) 635-4105

(✉) **e-mail:** [craig.roesler@wisconsin.gov](mailto:craig.roesler@wisconsin.gov)

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## **Field notes from April 30<sup>th</sup>, 2018 fish surveys and macroinvertebrate observations at Newton Creek**

Fish surveys and macroinvertebrate observations were done at 3 sites on Newton Creek in response to the Husky oil refinery fire that occurred on April 26<sup>th</sup>. A large amount of runoff produced by fire-fighting efforts flowed down Newton Creek and carried fire-fighting foam and potentially other refinery related substances. Accumulations of fire-fighting foam were present at multiple locations along the length of Newton Creek on April 27<sup>th</sup>.

April 30<sup>th</sup> field work was done by Craig Roesler and Matt Steiger (WDNR).

Fish survey and other data is listed below.

**Newton Creek at 3<sup>rd</sup> St.** (SWIMS no. 163275); start time 13:10 (water quality parameters measured at 16:50); station length 100 m

Water temperature – 9.1°C

Dissolved oxygen – 9.9 mg/l / 89% saturation

Conductivity – 369 umhos/cm

pH – 7.6

Fish captured:

Brook stickleback – 14

Central mudminnow - 1

Creek chub – 3; (one 5.5" creek chub had extensive fin erosion/loss; dorsal – 90%, caudal – 15%, anal – 90%, pelvics – 85%, pectorals – fin rays twisted)

Total no. of fish captured = 18

No. of species = 3

Past fish surveys done at this station captured 26-192 total fish, and 5-11 species

Macroinvertebrate observations: Found live isopods, riffle beetles, caddisfly larvae, and misc. fly larvae in two kick net samples from rocky riffle. No macroinvertebrates noted in cursory examination of net sweep of overhanging grassy vegetation. One live crayfish seen during fish survey, but not captured.

Misc. comments/observations: Minimal surface sheen observed when sediments were disturbed. No excessive foam; some foam bubbles being produced in riffle at upper end of station.

**Newton Creek upstream of 11<sup>th</sup> St.** (SWIMS no. 163011); start time 14:45; station length 100 m

Water temperature – 10.0°C

Dissolved oxygen – 8.3 mg/l / 76% saturation

Conductivity – 463 umhos/cm

pH – 7.5

Fish captured:

Brook stickleback – 1

Central mudminnow – 2

White sucker - 1

Total no. of fish captured = 4

No. of species = 3

Past fish surveys done at this station captured 11-132 total fish, and 2-5 species

Macroinvertebrate observations: Found multiple live isopods, chironomids, riffle beetles, and caddisfly larvae in two kick net samples from rocky riffle. Three live large crayfish (*Cambarus diogenes*) were seen or captured during fish survey.

Misc. comments/observations: No sheen observed. No excessive foam. Filamentous green algae on rocks is dying and bleaching out.

**Newton Creek downstream of 21<sup>st</sup> St.** (SWIMS no. 163008); start time 16:00; station length 100 m

Water temperature – 11.7°C

Dissolved oxygen – 7.5 mg/l / 72% saturation

Conductivity – 548 umhos/cm

pH – 7.6

Fish captured: none

Past fish surveys done at this station (2016 only) captured 26-50 total fish, and 3-6 species

Macroinvertebrate observations: This station lacks any hard bottom substrate. No macroinvertebrate collection was done.

Misc. comments/observations: one dead stickleback found; numerous dead earthworms on stream bed; stream channel is much shallower than in fall of 2017 due to extensive deposition of silt/clay, apparently from soil disturbance along an adjacent utility line, despite erosion control measures in place. Light

surface sheens observed. Sheening was observed when vegetation hanging into stream was disturbed by wake and not from bottom sediments.