



Communities, Land +  
and Environment

## **CAMPBELLTON CREEK FISH KILL 2017**

### **PRELIMINARY REPORT**

**September 2017**

# **CAMPBELLTON CREEK FISH KILL PRELIMINARY REPORT, SEPTEMBER 2017**

## **SUMMARY**

- A fish kill in Campbellton was reported to the Prince Edward Island Department of Communities, Land and Environment on July 23, 2017. Representatives from the PEI Department of Communities, Land and Environment, PEI Department of Justice and Public Safety, Environment and Climate Change Canada and PEI Department of Agriculture and Fisheries responded to the incident.
- There were 78 brook trout collected during the investigation and clean up.
- The Provincial Department of Justice and Public Safety and Environment and Climate Change Canada officials continue to investigate the fish kill.

## **BACKGROUND**

At 1:30 PM on July 23, 2017, the Department of Communities, Land and Environment's Freshwater Fisheries Biologist received a telephone call from the watershed coordinator with the Roseville/Miminegash Watersheds Inc. The coordinator reported that dead fish were observed in a small stream which crosses the Coughlin Road within the Campbellton watershed area. The PEI Department of Justice and Public Safety's (PEIDJP) Manager of Investigation of Enforcement was notified. The Investigation and Enforcement Manager, a Conservation Officer, Freshwater Fisheries Biologist, and Environment and Climate Change Canada Officer responded and arrived in Campbellton in the late afternoon of July 23, 2017.

## **INSPECTION DETAILS**

The Fisheries Biologist and Manager of Investigation of Enforcement were first to arrive in Campbellton and observed two dead brook trout in turbid water immediately upstream from the Coughlin Road stream crossing (Figure 1). Schools of live fish were seen at the Route 14 stream crossing, however the Investigation and Enforcement Manager observed two small dead trout downstream from this culvert. All four responders walked upstream from the Coughlin Road, finding dead fish throughout the stream for approximately 0.5 km. There were 66 brook trout retrieved in this section during the July 23<sup>rd</sup> investigation. The condition of the fish indicated that they had been dead for a couple of days. There were signs of recent runoff from surrounding land upstream from the Coughlin Road, including sediment deposited throughout the flood plain. One live fish was observed in this area.



Figure 1. Location of Campbellton fish kill, 2017. Note: dead fish were observed in the 1.0 km section identified in red.

Water samples (both stream and standing water samples), vegetation samples, soil and fish samples were collected on July 23<sup>rd</sup>, 2017. These samples, along with thirty-eight dead trout wrapped in tinfoil, were transported to the Environment and Climate Change Canada Laboratory in Moncton for analyses. Water samples were also taken to the Prince Edward Island Analytical Laboratories in Charlottetown. Five brook trout which had been collected by the watershed coordinator on July 23<sup>rd</sup> were kept refrigerated and taken to the Atlantic Veterinary College for necropsy the following day. Twenty-eight additional dead brook trout were measured and recorded on July 23<sup>rd</sup>, 2017.

## **ENVIRONMENTAL CONDITIONS**

### **RAINFALL**

Rainfall was recorded at the University of Prince Edward Island's Climate Research Lab weather station in Brockton ([www.wunderground.com](http://www.wunderground.com)) on July 21, 2017 (22.6 mm). The weather station is within 4.0 km of the upper affected area of the Campbellton stream. Intense thunder and lightening storms affected all of Prince Edward Island over the weekend of July 21-23, 2017 but precipitation varied within the region.

### **WATER QUALITY**

Water temperature and dissolved oxygen readings were taken at the Coughlin Road crossing at 5:00 PM on July 23, 2017. Water temperature at that time was 16.2°C with a dissolved oxygen concentration of 9.9 mg/L (101.8% saturation). These levels are within the optimum range for brook trout (13-18°C and >5 mg/L of oxygen).

### **FISH CLEAN UP**

Clean-up of dead fish on Campbellton Brook was completed on July 24, 2017. The Roseville/Miminegash Watershed Inc. crew of three, as well as the Provincial Freshwater Fisheries Biologist, walked from Route 14 to the Coughlin Road. Live fish were observed downstream from the Route 14 culvert and live fish were observed as far upstream as the junction of the Coughlin Road tributary and the Doyle Road tributary. Live fish were seen on the Doyle Road tributary immediately upstream from the forks. Seven dead brook trout were collected from the forks of the two tributaries to the Coughlin Road. The stream outlined in red indicates where dead fish were collected. There were 78 brook trout collected during the investigation and clean-up, ranging in size from 5-23 cm. Mink tracks, raccoon tracks and great-blue heron tracks were observed throughout the stream.

### **SOIL AND WATER ENGINEER ASSESSMENT**

As recommended by the 2012 Report of the Action Committee on Sustainable Land Management, soil and water engineers arrived on site on July 24, 2017. They assessed fields in row crop production in the Campbellton watershed area for signs of erosion. The engineers work with landowners to address any erosion issues identified and submit a report to the PEI Department of Agriculture and Fisheries, PEI Department of Communities, Land and Environment, and PEI Department of Justice and Public Safety.

## **RESULTS**

### **ATLANTIC VETERINARY COLLEGE - FISH NECROPSY**

Results pending.

**APPENDIX I**

**CAMPBELLTON BROOK FISHKILL**  
**July 23-24, 2017**

**PHOTOS**



Figure 2. Two dead brook trout visible in turbid water upstream from the Coughlin Road bridge. July 23, 2017



Figure 3. Provincial Investigations and Enforcement Manager and Environment and Climate Change Canada officer collect fish samples in Campbellton Creek. July 23, 2017.





Figure 4. Sediment deposited in the flood plain of Campbellton Creek, upstream from the Coughlin Road. July 23, 2017



Figure 5. A sample of dead fish collected in Campbellton Creek. July 23, 2017.





Figure 6. Members of the Roseville/Miminegash Watersheds Inc. crew assist in cleanup of Campbellton Creek fish kill. July 24, 2017



Figure 7. Raccoon tracks in the mud downstream from the Coughlin Road. July 24, 2017

**APPENDIX II**

**CAMPBELLTON BROOK FISH KILL  
NECROPSY RESULTS**

**Atlantic Veterinary College**