

PCS 84069

AltEn Field Observations

March 8, 2021

Dave Bubb

NDEE

Observations of the stream.

Observations started at approximately 1340 and ended at 1430

The site above Site 3 and on the north side of Highway 66 facing north. There had previously been a pump at this site pumping upstream of the berm, which is visible above the telephone pole across the drainage. The water was being pumped back to the AltEn facility. At the time of my observation no pumping was occurring at this location.



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On the south side of Highway 66 facing south and above Site 3. Water is being pumped from the drainage and is going through the collapsible tubing towards the northwest back to the AltEn facility. Note collapsible tubing in lower left-hand corner of the photo. This is the same tube as is visible in the previous photo.



Photo of the staff gauge which was put in place on March 2, 2021. Photo is on the west side of Highway 66 facing north and on the south side of Site 3. Water level had dropped to where the drainage was in its banks and the area where the staff gauge is located is just damp.



Site 3 on the west side of Highway 66, south side of the stream facing north. The cement culvert, right side of photo, is visible between the two large trees, with a balloon inside of the culvert blocked by plywood wrapped with a plastic tarp and held in place with sandbags. The top of the culvert was visible. Water temperature: 12.5 degrees C, Dissolved oxygen: 1.4 mg/l, pH: 7.1 St.Units, Conductivity: 450 Umhos/cm, Turbidity: 24.4 NTU's. Air temperature: 72 degrees F, 90% cloud cover and a south wind at 20 to 25 mph.



Site 2, west side of the county road and facing west. Drainage is clear of ice.



Site 2 west side of county road facing east. The same metal culvert as in the previous picture. Water level is just to the bottom of the culvert.



Site 4, west side of the county road facing west. Snow and ice now melted. Low to no flow due to a beaver dam upstream and some pooled areas.



Site 5 facing west. Pump was not running.



Additional notes:

After making observations of the stream I contacted Ken Peterson to get permission to go inside the hoop barns on the AltEn property and he agreed to assign an employee to show me around. This is documented in a separate report.