



Atlantic Canada's leading experts  
in coastal wetland restoration

June 6, 2023

---

**To:** Tom Lavers

**Re:** Assessment of Potential Wetlands and Slope at PID 00381715

---

CBWES was contacted by the client during the winter of 2023 regarding a potential wetland at PID 00381715 at the eastern boundary of the property. A site visit was carried out on May 24, 2023, by wetland specialists Jeremy Lundholm and Jennie Graham, to determine if wetland conditions existed in the area of concern. Both specialists have received wetland delineation training (Fern Hill Institute, 2021 and Humboldt Field Research Institute, 2010 respectively) and have been working in wetlands for over a decade (25 and 15 years respectively).

Prior to the site visit, GIS data including aerial imagery, contour, wetland, and Wet Areas Mapping (WAM) were examined to better understand the conditions at the site. While imagery showed differences in surface cover at the location of concern (exposed bedrock, changes in vegetative cover), no evidence of wetland conditions was identified in the wetland, contour or WAM data (i.e., no mapped wetlands; well to moderately-well drained area; located on a slope). In addition to the original noted location along the eastern boundary, a change in forest cover was noted in aerial imagery along the northern property boundary. Aside from these locations, no other wetlands or potential wetlands were detected on the property based on the available data.

During the site visit no wetlands were identified within the property boundaries at the initial area of concern, the secondary location or during the walk to these locations. At the initial location, exposed bedrock (secondary conservation features) with adjacent barrens were identified, with plant species including typical barrens cover (Mountain Holly, Sheep Laurel, Broom Crowberry, Black Crowberry, Common Juniper, and Reindeer Lichens). These small patches of barrens can occur following forest disturbance. The small size of these relatively open patches makes them unlikely to persist as open barrens and can thus be considered an early forest successional stage which does not have conservation significance. Soils were shallow in most locations, though pockets of deeper soils were identified as is typical of barrens in the province. Indicators for hydrology and hydric soils were not observed within the area of interest. At the secondary location conditions included blowdown and young evergreen trees in the area recovering from storm damage. No wetland conditions were observed. Available mapping data and photographs of site conditions are attached.

During the site visit no primary conservation features were observed. Primary conservation features (which were *not* observed) include: wetlands, riparian buffers, floodplains, natural drainage systems and detention areas, environmentally sensitive areas, archaeological sites, and areas of high ecological value. To address slopes exceeding 30% (primary conservation feature), a slope analysis was carried out using Lidar data collected in 2019 by the province of Nova Scotia. The mean slope of the property was 5%, with 320 m<sup>2</sup> of the property having slopes greater than 30%. These areas likely represent small rock faces, typical of the geology of the area. No faces exceeded 1 m in height and the largest occupied 46 m<sup>2</sup>. A map of the analysis is attached.



While bare rock (a secondary conservation feature) was observed, as described above, no other secondary features were observed. Secondary features include mature forest, scenic views, trails, historic sites and buildings, and other features of high cultural value. The area of bare rock (exposed bedrock), which was readily identified from aerial photography, occurred almost exclusively along the south-eastern boundary of the property where barrens were observed, and totalled 435 m<sup>2</sup>. A map of the analysis is attached.

Sincerely,

Tony M. Bowron



CEO & Coastal Wetland Ecologist  
CBWES Inc.

Jennie Graham



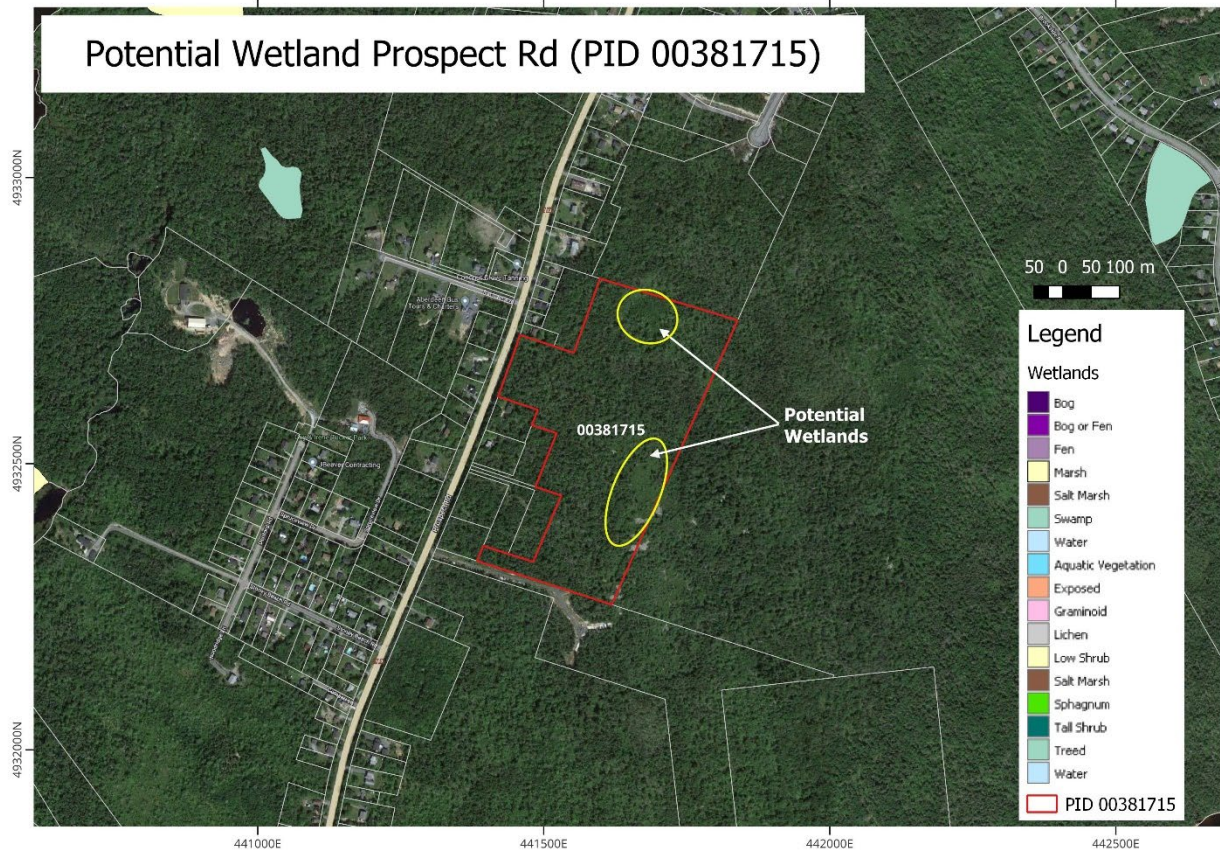
VP & Senior Restoration Specialist  
CBWES Inc.

Jeremy Lundholm

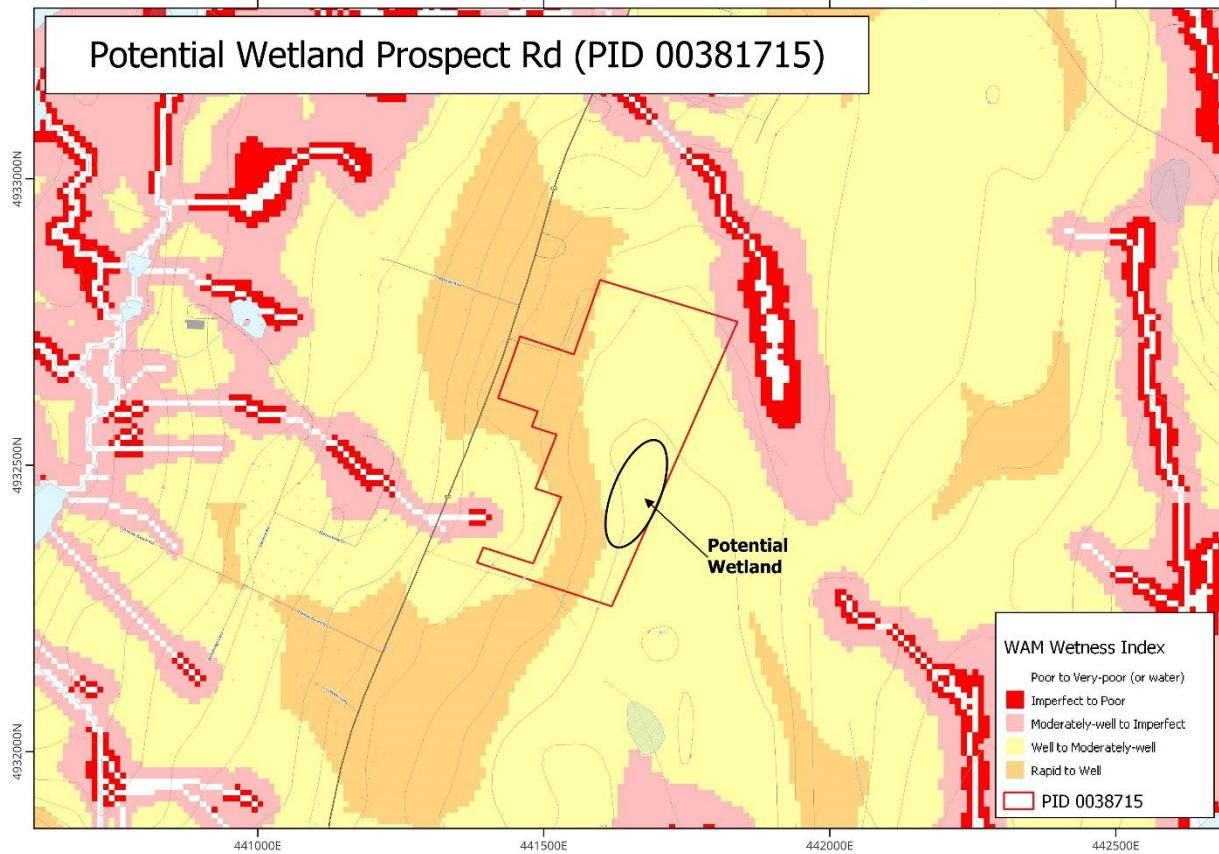


Associate & Senior Plant Ecologist

# Maps and Site Photos



*Airphoto with Wetlands mapping (Google Hybrid Imagery, accessed 2023; Nova Scotia Department of Natural Resources, Accessed 2023).*



*Contour data and Wet Area Mapping (WAM) (GeoNova, Accessed 2023; NS Department of Natural Resources and Renewables, Forestry Division, Accessed 2023).*



*Looking North-east along property line~10 m from rock outcrop (44°32'34.7"N 63°44'02.1"W)*



*Looking North-West across property ~10 m from rock outcrop (44°32'34.7"N 63°44'02.1"W)*



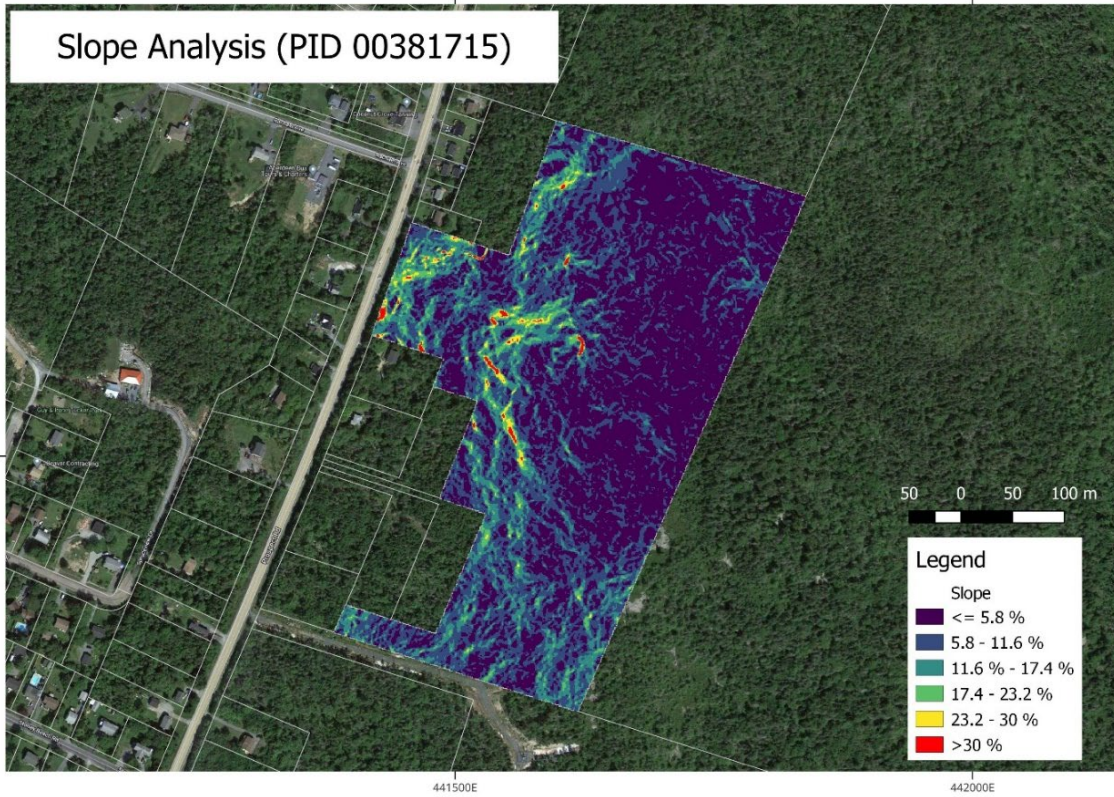
*Looking North-West across property from center of potential wetland (44°32'34.7"N 63°44'02.7"W)*



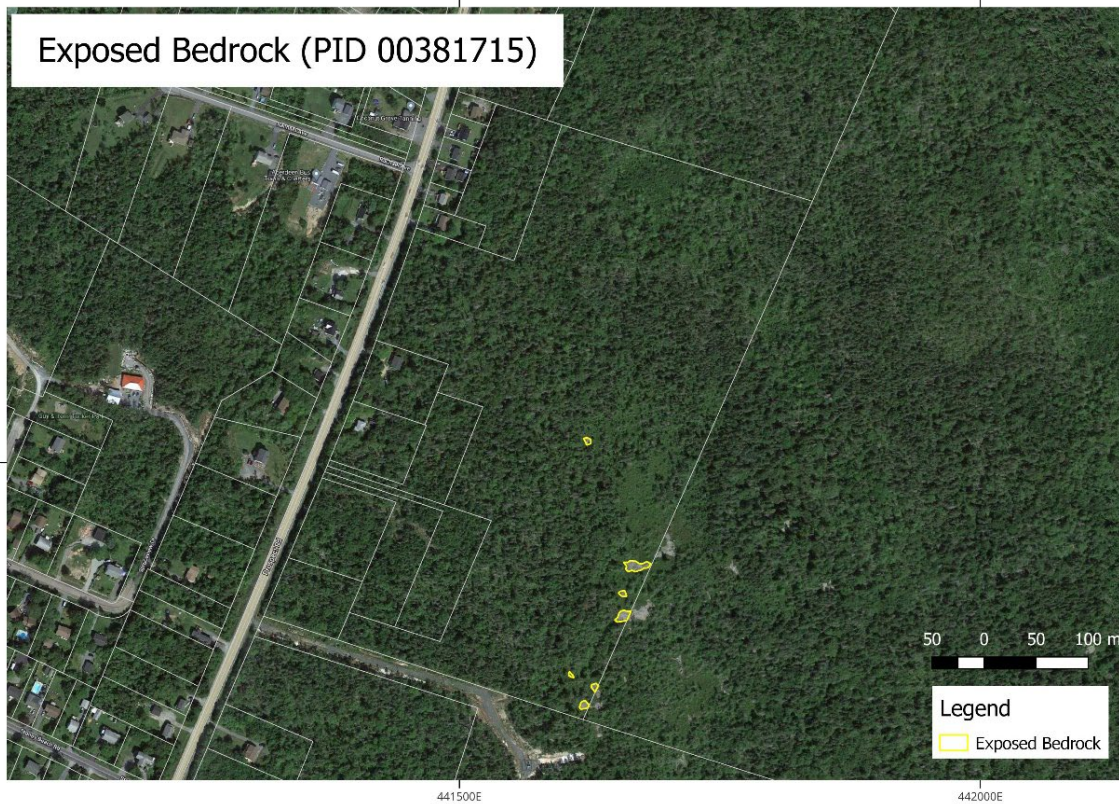
*Looking South-West parallel to property line from center of potential wetland (44°32'34.7"N  
63°44'02.7"W)*



*Looking North-West across property from South-Western edge of potential wetland (44°32'33.5"N  
63°44'03.0"W)*



*Slope Analysis (Lidar DEM GeoNova, Accessed 2023).*



*Location of Exposed Bedrock (Google Hybrid Imagery, Accessed 2023).*