

Site Report

Site Number:	AQ#8046		
Location:	Argyle Sound, Yarmouth County	Size:	6.00 HA

Species and Methods of Cultivation Eligible for Consideration		
Species Type:	Common Species Name(s):	Method(s) of Cultivation:
Shellfish	American oyster, Giant sea scallop, Bay scallop. Other species native to this water body are eligible but must be specified in a proposal	Suspended Cultivation
Marine Plants	Sugar kelp. Other species native to this water body are eligible but must be specified in a proposal	Suspended Cultivation

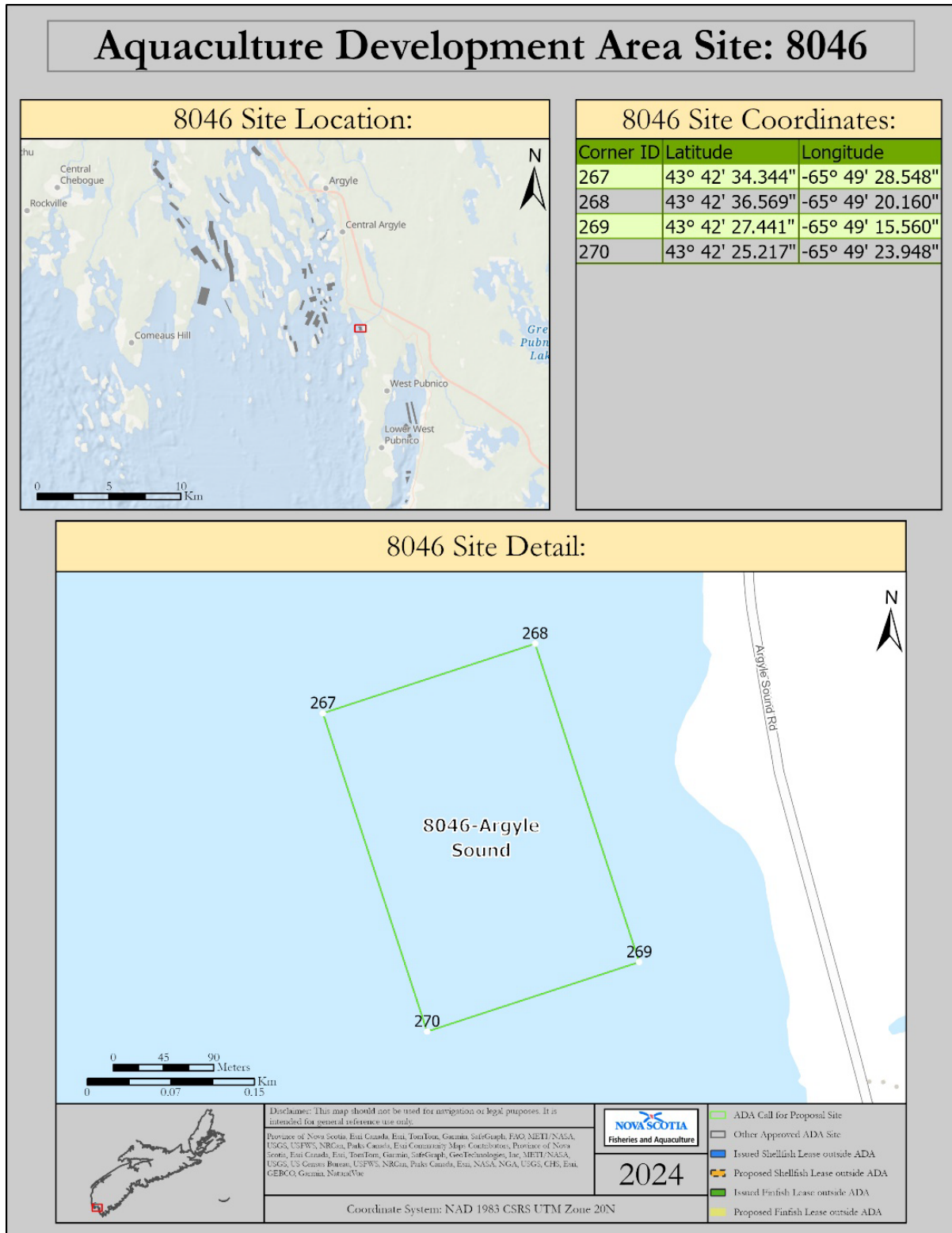


Figure 1. Vicinity map

Location:

Approximate centre coordinates: N 43° 42' 30.8930", W 65° 49' 22.0542"

This site is part of a designated Aquaculture Development Area (**Figure 1**) and is situated within Argyle Sound, approximately 80m west of the mainland shoreline and approximately 280m northeast of Frost Island. The rectangular shape runs in a northwest to southeast direction roughly parallel to the coastline.

While there are no other sites within the immediate vicinity, the nearest aquaculture site with an issued licence and lease is located approximately 1.1km southwest of this site, AQ#0912, which is currently authorized for the marine cage cultivation of Rainbow trout (and is not part of the designated Aquaculture Development Area).

There is a wharf or small craft harbour approximately 2km to the northwest, Camp Cove (Lower Argyle), and another located at Green Cove (Argyle Sound), approximately 1.5km south. There are several private access points along the shoreline. Proponents should engage with local harbormasters (or equivalent) to discuss opportunities and capacity to use those facilities.

Bottom Characteristics:

In September, 2023, Nova Scotia Department of Fisheries and Aquaculture scientists collected underwater video baseline footage of the area using a submersible drop camera (**Figure 2**). The overall depth of the site ranged from 1m to 5m relative to Chart Datum (Lowest Low Tide). There was no indication of eelgrass meadows within the site, and it was rare to see free-floating strands of eelgrass within the site. Bottom type observations throughout the site consisted primarily of hard-packed, fine silt sediment with occasional observations of sandy and rocky substrate at some stations.



Figure 2. Map displaying baseline video sampling station locations

Eelgrass:

Eelgrass is an ‘Ecologically Significant Species’ (ESS) and is present along the marine coast of Nova Scotia at varying degrees of abundance, with many factors contributing to its growth, survival and reproduction. The type and spacing of suspended aquaculture gear can influence the amount of light reaching the water column and the sea floor where eelgrass is present. Proponents are expected to include plans on how to eliminate or mitigate the impact of their aquacultural operation on any eelgrass present within and near to the site, where applicable. In addition, rows of gear should be spaced at least 3 metres apart.

Water Quality:

This site is located within an area classified as “approved” for harvesting of all species of bivalve mollusks by the Canadian Shellfish Sanitation Program as of March 31, 2024. Proponents are expected to check with the Department of Fisheries and Oceans Canada for the most current classification status (<https://www.dfo-mpo.gc.ca/shellfish-mollusques/cssp-map-eng.htm>).

Water Depth:

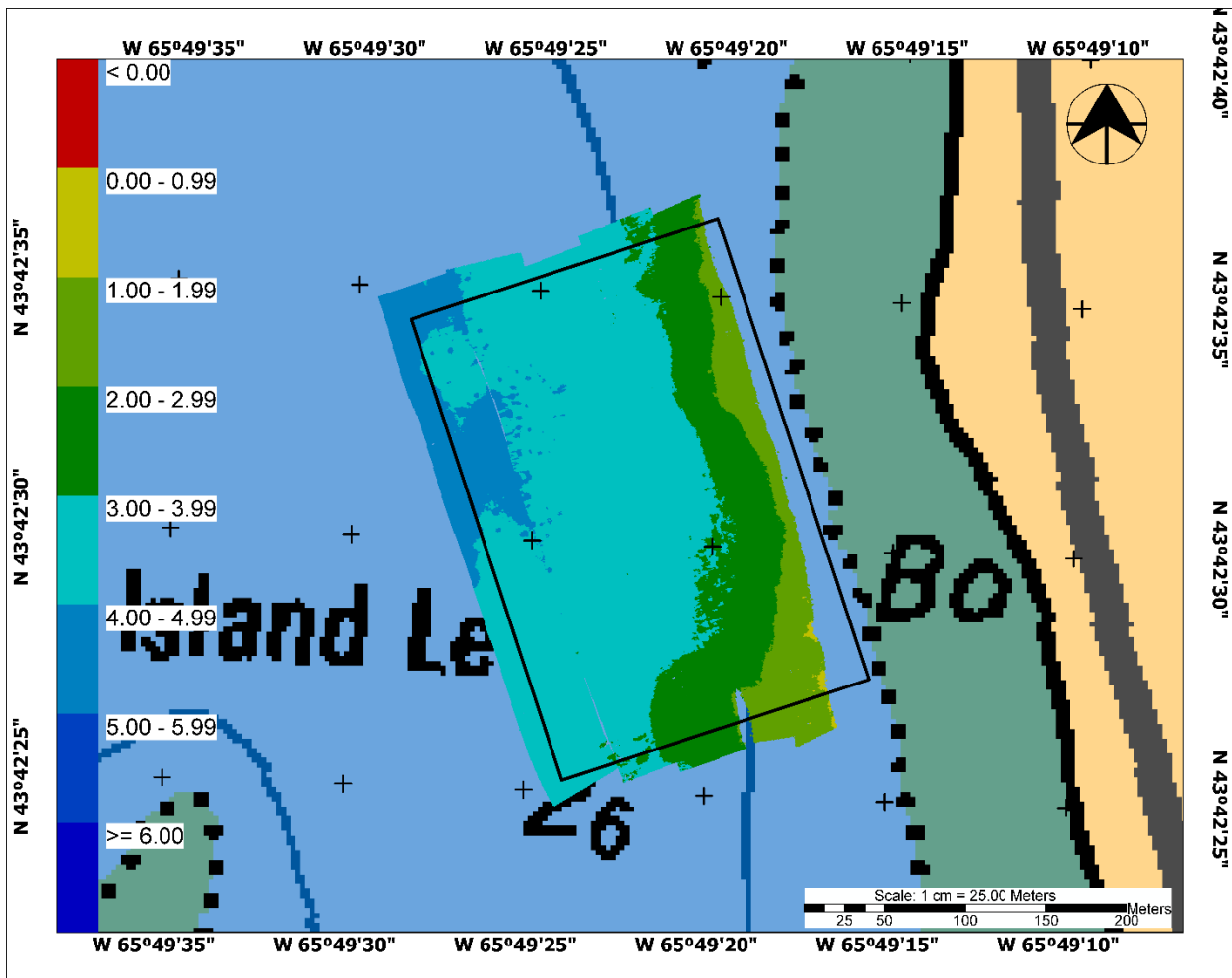


Figure 3. Site map with depth

In June, 2023 Nova Scotia Department of Fisheries and Aquaculture scientists collected bathymetry data throughout the prospective area using a 3D side-scan sonar system. **Figure 3** displays a representation of

the resulting depth data collected, corrected to chart datum (depth at lowest low water during large tide). Based on data collected, the site is deepest along the western boundaries at approximately 5m, becoming shallower approaching the shoreline-facing boundary at approximately 1m. According to predictions from the nearby CHS tide stations, depths in this area will vary by as much as 4m or more between high and low tides. In general, shallow areas and areas with lower current speeds can expect seasonal ice build-up and ice movement. Proponents should include plans on how to mitigate the impact of ice on their aquaculture operation where applicable, within their proposal.

Wildlife:

A saltmarsh habitat exists along the western coastline of Pubnico Harbour and along the coastline of Argyle Sound. This site is situated outside of these habitats. Migratory bird colonies have previously been observed at Frost Island.

There are currently no known designated provincial parks, nature reserves or wilderness areas in the vicinity of this site.

Accuracy and Currency of Data:

The Nova Scotia Department of Fisheries and Aquaculture strives to provide accurate and up-to-date information in this report. However, this report is not a peer-reviewed scientific publication and is instead intended to be a summary representing the general conditions regarding the site’s suitability for the type of aquaculture under consideration by a Proponent interested in responding to a call for proposals (and subsequent application for an aquaculture licence and lease) for this site.

The Department does not make any guarantees as to whether or not an aquacultural operation would be successful at this site, nor does it absolve a person from ensuring that they obtain any additional necessary permits, approvals or licenses from the relevant Municipality, Provincial or Federal agency prior to conducting aquaculture.

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	Name / Title	Signature / Date