

ᑭᐱᑭᐱ (ᑭᐱᑭᐱ Community)

Department of Lands and Natural Resources

Request For Quote

Wetland Vegetation Inventory's on ᑭᐱᑭᐱ Land

April 2025

Issue Date: April 14th, 2025

Closing Date: May 12th, 2025

Closing Location: ᑭᐱᑭᐱ, 7470 Mission Road, Cranbrook BC V1C 7E5

Telephone: 778-761-3171

Email: snikkel@aqam.net

INTRODUCTION

ʔaqam is a First Nations community government organization that services 374 Band Members and other aboriginal peoples within the Ktunaxa Nation. Geographically, the community is located 8km North of Cranbrook in the East Kootenay region of British Columbia.

ʔaqam's Lands and Natural Resource Department is seeking quotes for assistance from a Qualified Environmental Professional to conduct inventories at various plots for both invasive and native plants and conduct various wetland assessments at six wetland sites on ʔaqam lands which is in reference to a wetland restoration project. This work will help ʔaqam with monitoring the changes in plant life pre and post wetland restoration and help make project decisions.

A service agreement will be issued to the successful bidder in compliance with the terms, specifications, and provisions in the submitted quote, which must include the provision of skilled labor, transportation, supplies, and incidentals. Contractors will be responsible for their own equipment, insurance, and transportation.

BACKGROUND

In 2021, the ʔaqam Lands Department began planning the Wetland (ʔakaq̓taʔhaʔ) Restoration Project. Community consultation was conducted, and six wetlands located throughout ʔaqam lands were chosen to be apart of the project. Previous plant inventories were conducted last summer and assisted in the wetland restoration project. Excavation work occurred at Unnamed Wetland in October, 2024 and tree brushing activities at Unnamed Wetland, Stink Lake, and Long Lake occurred between February-April 2025. Appendix B is a map showing where each wetland is located on Kootenay IR 1. Each wetland size is approximately: Airport Wetland: 2 hectares (ha), Twin Lakes: 1 ha, Long Lake: 2 ha, Francis Lake: 10 ha, Stink Lake: 1 ha, Unnamed Wetland: 0.5 ha. Besides Francis Lake, these wetlands are typically dry or have a small amount of water in them.

DELIVERABLES

From June 29-July 1st 2024, vegetation inventory plots were created at each of these wetlands and an inventory was made. We would like to have similar work completed at each of these locations this summer. The previous work done at these wetlands had photo points collected, riparian health assessments completed, looked at soil types, and looked at vegetation present (native and invasive). We would like similar methods used to last years inventories along with a comparison between last years and this years data. An overview of the methods used previously are below. The successful contractor will be given last years report and data to review. The successful contractor will be expected to submit GPS data points, updated georeferenced maps, and a final report.

Methods Overview:

Vegetation Assessment

- Documentation of provincially/regionally noxious weeds, and invasive species of special concern (e.g., cover, distribution, and density)

- Plots were placed along fixed transects that bisect the wetland and were assessed (plot locations not GPS'ed). Three transects were located on each wetland, with a minimum of two 0.25 m² plots placed in each vegetation zone along each transect (Maps of each wetland and it's transects can be found in Appendix C). The plots were evenly distributed within the vegetation zones present (upland, low prairie, wet meadow, shallow wetland, and deep wetland) along the length of the transects. During each assessment, the meter mark of each wetland zone was recorded along the transect to show shifts in the zones within each wetland.
- The assessments were completed using foliar cover by professionals who are trained in vegetation surveying and assessment
- Compiled a complete species list for the wetland and cover summary for each species
- Factors assessed included cover of each species, bare ground, litter, bare soil, water, rock, and any other indicators of concern
- The following shows the number of plots at each wetland:
 - **Airport Wetland**- 33 total Plots
 - **Francis Lake**- 23 total Plots
 - **Long Lake**- 26 total Plots
 - **Stink Lake**- 27 total plots
 - **Twin Lakes**- 26 total plots
 - **Unnamed Wetland**- 25 total plots
- In wetlands with large open water zones that could not be traversed, 6 transects were placed around the wetland, with one 0.25 m² plots in each vegetation zone (Francis Lake)

Wetland Health

- Wetland perimeters were confirmed and delineated during the assessment. The delineation and classification were completed according to the Wetlands of British Columbia Identification Guide and vegetation zones were identified based on the Classification of Natural Ponds and Lakes of the Glaciated Prairie Region – by completing this again we are able to see how the wetlands are changing
- Completed a riparian health assessment following the Cows & Fish Protocol (Alberta Riparian Habitat Management Society, 2018)
 - The riparian health methodology for lakes, sloughs and wetlands (Ambrose et al., 2009) was used to assess the health of each wetland
- Wetland Monitoring Metrics include:
 - Wetland Delineation and size (to see if the wetlands are increasing/ decreasing in size over the years)
 - Wetland Classification
 - Cover of desirable wetland plants
 - Species richness
 - Cover of invasive species

Photo Points

- Photo monitoring points were established and GPS locations noted at each vegetation transect, capturing images from both ends looking into the wetland (unless large open water zone at end of transect).

Changes to this years data collection

- Plot locations are to be GPS'ed and submitted with the final report along with the data found at each plot put into an excel sheet and submitted (including common and Latin name of species found, percent cover, and listing if the plant species is exotic, introduced, invasive or native)
- Soil type data will not need to be collected

- Compare this years data to last years data (plant coverage, new plants present or missing, compare photos, wetland monitoring metrics ect.)
- Add another transect to Twin Lakes at the SW lake (Figure 3-5 in Appendix C)
- Adjust transects and plots at Unnamed Wetland as needed (Figure 3-6 in Appendix C) due to excavation in October 2024 and additional water present

A final report on the wetland vegetation inventory findings will include but is not limited to: monitoring methodologies and protocols, result summary and chart for each wetland, kml and shape files of plot locations, plant data collected in an excel file, point photo log, comparison of last years data to this years data, updated georeferenced maps, Rapid Health assessment results and management recommendations/ next step suggestions for invasive plant management.

REGULATORY APPROVALS

- The Contractor is responsible for complying with all Federal, Provincial, and Municipal legal regulatory requirements and all applicable environmental legislation.
- The Contractor must demonstrate their qualifications as a **Qualified Environmental Professional (QEP)** and membership with BC's College of Applied Biology or an equivalent organization.

INSURANCE

- The Contractor shall carry Comprehensive General Liability Insurance in the amount of a minimum of \$2M for each and every occurrence and Workers Compensation Insurance in accordance with the requirements of the British Columbia *Workers Compensation Act*
- The Contractor shall also ensure all proper licenses are held and follow all local, provincial, or federal laws/regulations. If granted the contract, the proponent must present a Work Safe BC letter and Certificate of Liability Insurance (COI) with AQAM added as additionally insured.

TIMELINES

- We would like the plot work to be completed between June 23rd - July 11th, 2025 (as the previous plots were observed on June 29th - July 1st, 2024).
- The final report will be due September 1st, 2025
- Bid submissions are due **May 12th, 2025 by 10am MST**

HOW TO APPLY

Complete the attached **Wetland Vegetation Inventory Questionnaire** (Appendix A) and send it as well as any additional relevant information needed to Skylar Nikkel, Lands Manager either by email (snikkel@aqam.net) or in a sealed envelope marked "confidential" by **10:00am MST** on Monday, May 12th, 2025.

The contract to be awarded from this RFQ will be made to the prospective contractor whose quote conforms most to this RFQ, will be most advantageous to ʔaqam based on price competitiveness, qualifications, and previous work with ʔaqam or other Ktunaxa First Nations. The following factors will be used to score each offer received, forming the basis for awarding this contract:

- Contractors/companies which are ʔaqamnik, Ktunaxa, or of other First Nations will be given preference.
- Experience working with ʔaqamnik, Ktunaxa, or of other First Nations on related projects.
- Demonstration of qualifications and experience of company/contractors working within the southern rocky mountain trench with vegetation surveys and reporting (examples of past work should be provided)
- Cost competitiveness.
- Inclusion of insurance and qualification certificates to complete the scope of work (please include a copy of your WorkSafeBC (or equivalent) and Certificate of Liability Insurance (COI) with your bid along with relevant certificates)



*****Incomplete bids will not be accepted*****

THE BAND RESERVES THE RIGHT TO REFUSE ANY OR ALL BIDS. THE LOWEST BID WILL NOT NECESSARILY BE ACCEPTED AS THE SUCCESSFUL BID.

Appendix A: Wetland Vegetation Inventory Questionnaire

Complete and email to snikkel@aqam.net, Lands Manager by **10am MST** of May 12th, 2025

Contractor Name:

Address:

Phone:

Email:

Are you an ʔaqamnik, Ktunaxa, or of other First Nations company?

Please provide any past relative experience in the southern rocky mountain trench along with any past relative experience that has been done with Ktunaxa bands or other First Nations.

Please provide an overview of staff that would be on the project and their relevant qualifications. Please submit any qualification certificates.

Please confirm that you will be able to do the plot work between June 23rd - July 11th, 2025 and have the final report completed by September 1st, 2025.

Are there any conflicts of interest that you are aware of?

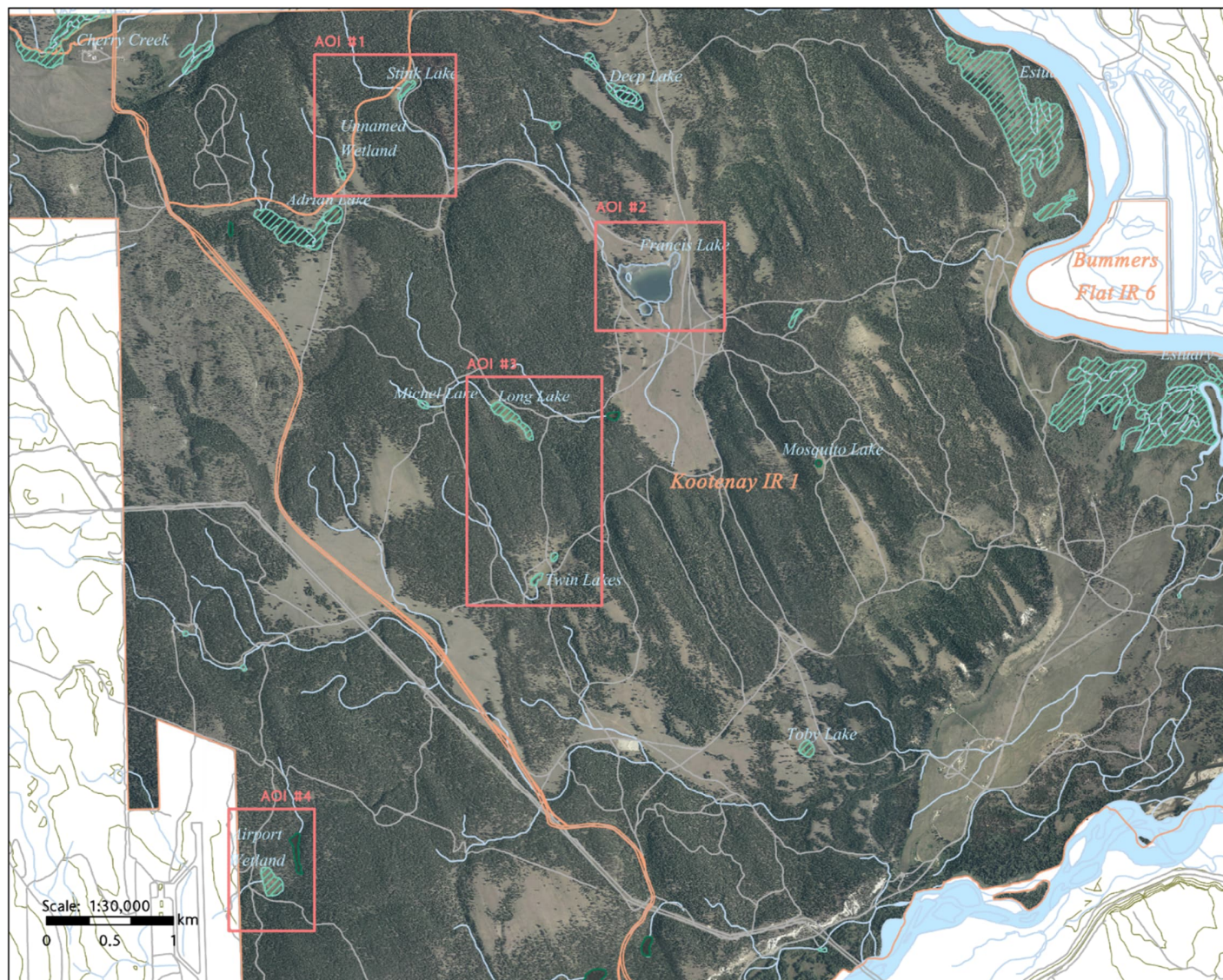
Bid Details

\$ _____ Cost of Plot Monitoring at all six wetland sites

\$ _____ Final Report Cost

\$ _____ Total Project Cost (including all expenses and GST)

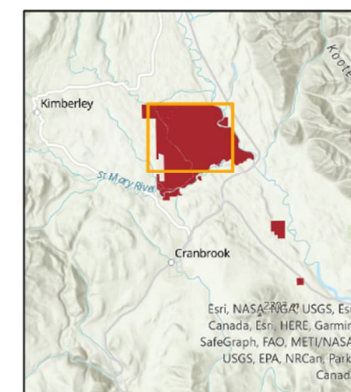
Appendix B- Wetland Locations on Kootenay IR 1



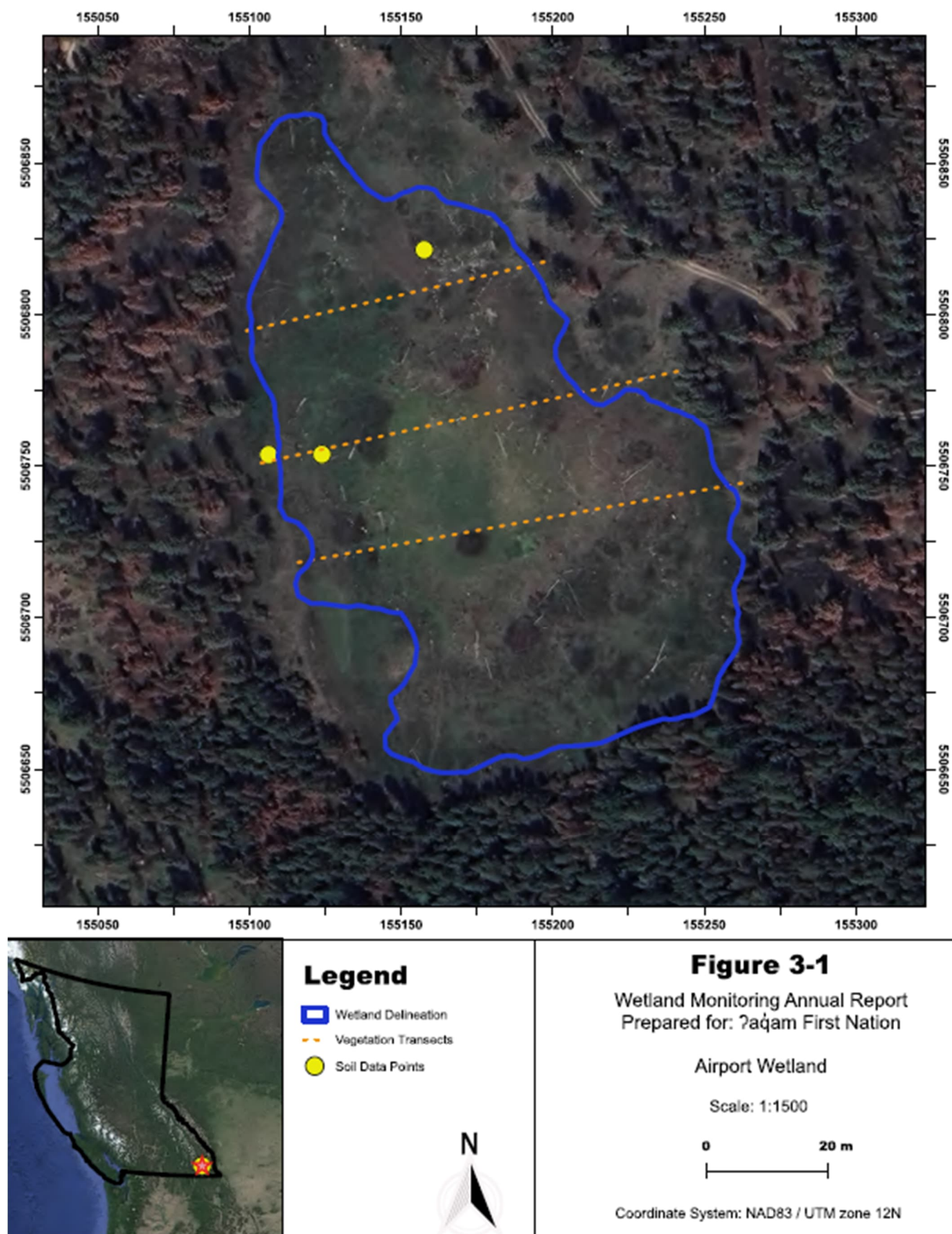
Legend

- ʔaqam Reserve Lands
- Roads
- Contours, 20m
- Creeks
- Rivers
- Wetlands by Type**
- Wetland
- Kettle Lake
- Receiving Site

Map updated October 15, 2021 by Sonja Seher, Lands & Resources Project Coordinator. Data provided by ʔaqam, the Province of BC and Canfor.



Appendix C- Wetland Transect Maps





Legend

- ▬ Wetland Delineation
- Vegetation Transects
- Soil Data Points



Figure 3-2

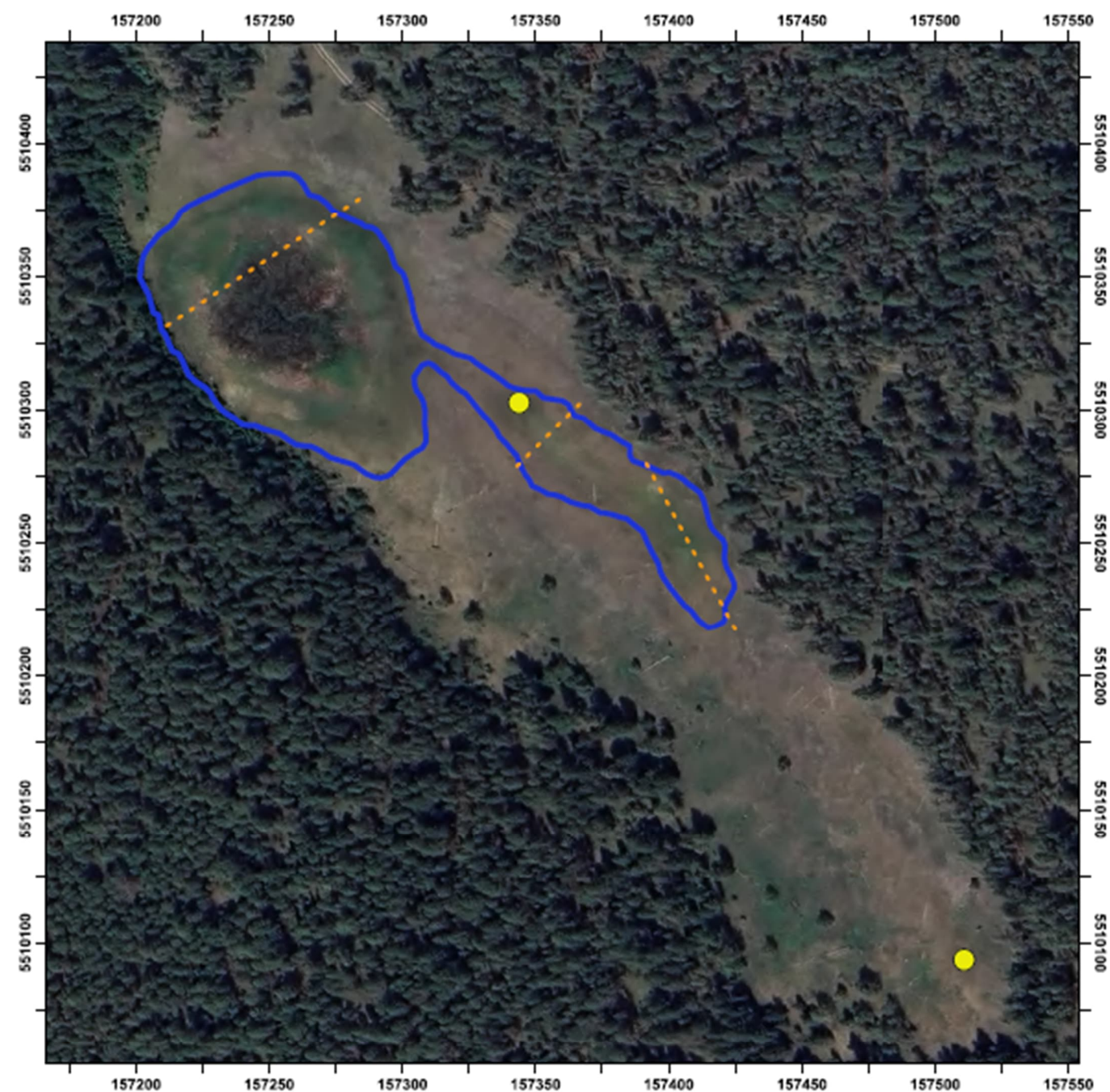
Wetland Monitoring Annual Report
Prepared for: ʔaąam First Nation

Francis Lake

Scale: 1:2800

0 20 m

Coordinate System: NAD83 / UTM zone 12N



Legend

- ▬ Wetland Delineation
- - - Vegetation Transects
- Soil Data Points



Figure 3-3

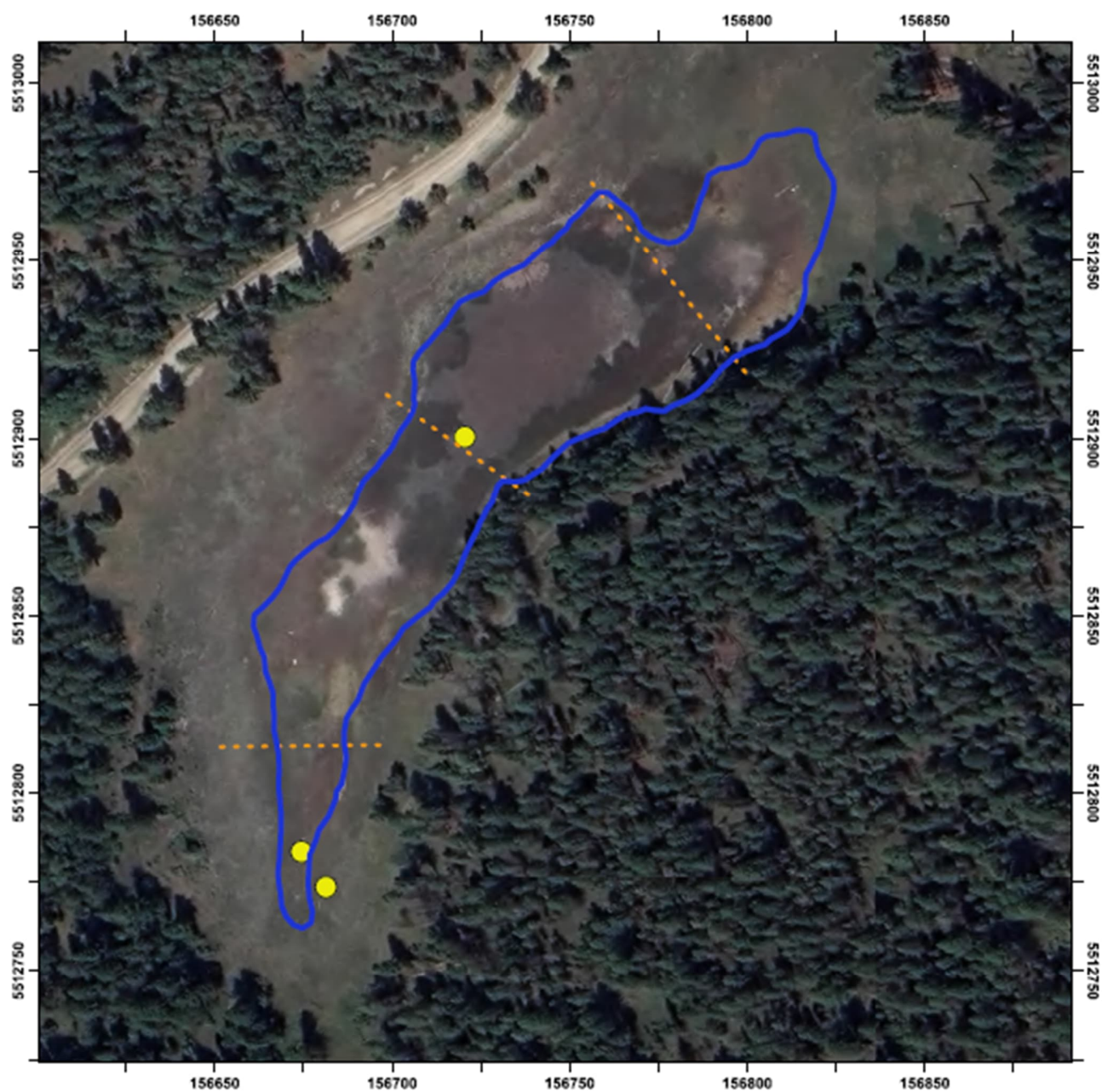
Wetland Monitoring Annual Report
Prepared for: ʔaḡam First Nation

Long Lake

Scale: 1:1500

0 20 m

Coordinate System: NAD83 / UTM zone 12N



Legend

- ▬ Wetland Delineation
- - Vegetation Transects
- Soil Data Points



Figure 3-4

Wetland Monitoring Annual Report
Prepared for: ʔaᑭam First Nation

Stink Lake

Scale: 1:1500

0 20 m

A horizontal scale bar with a vertical tick at each end, labeled '0' on the left and '20 m' on the right.

Coordinate System: NAD83 / UTM zone 12N



Legend

- Wetland Delineation
- Vegetation Transects
- Soil Data Points



Figure 3-5

Wetland Monitoring Annual Report
Prepared for: ʔaḡam First Nation

Twin Lakes

Scale: 1:1500

0 20 m

A horizontal scale bar with a vertical tick at each end, labeled '0' and '20 m'.

Coordinate System: NAD83 / UTM zone 12N



Legend

- ▮ Wetland Delineation
- Vegetation Transects
- Soil Data Points



Figure 3-6

Wetland Monitoring Annual Report
Prepared for: ʔaąam First Nation

Unnamed Wetland

Scale: 1:1200



Coordinate System: NAD83 / UTM zone 12N