# ?aqam

Department of Lands and Natural Resources

# **Request For Quote**

Wetland Tree Brush Thinning December 2024

Issue Date: December 17<sup>th</sup>, 2024 Closing Date: January 15<sup>th</sup>, 2025 Closing Location: ?aqam, 7470 Mission Road, Cranbrook BC V1C 7E5

**Telephone:** 778-761-3171 Email: snikkel@aqam.net

## INTRODUCTION

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

?aqam's Lands and Natural Resource Department is seeking quotes to conduct tree falling, brush thinning, and piling for trees around five wetlands that are a part of ?aqam's Wetland Restoration Project along with danger tree assessment at one location. The anticipated work is planned for the winter months (Jan 2025 – April 2025) with the contractor ensuring all necessary safety equipment for winter operations is attained. The targeted completion date for the work is April 1, 2025.

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 all their own equipment and transportation. Quotes can be made for tree falling, brush thinning and piling, or both as well as danger tree assessment for the one location.

## **BACKGROUND**

In 2021, the ?aqam Lands Department began planning the Wetland (?akaqta?hat) Restoration Project. Community consultation was conducted to pick the wetlands to restore located throughout ?aqam lands. Archeological assessments, species at risk surveys, hydrological studies, and traditional ecological knowledge research has been conducted and has assisted in the wetland restoration project. We are now working on tree removal to help reduce tree encroachment and the amount of water being removed by the trees.

Work is planned to be conducted within the Kootenay IR 1 at Stink Lake, Unnamed Wetland, Francis Lake, Long Lake and Airport Wetland (shown in Appendix A). These areas will require tree falling and tree brushing activities along with piling of fallen debris for future pile burning. Airport Wetland will require a danger tree assessment before any falling or thinning work commences. Please ensure you highlight what activities you are interested in. We plan to have tree falling activities be completed first and have brushing / bucking / limbing / piling occur afterwards. If you submit for tree falling, a valid tree falling certificate will be required and we ask you submit a copy with your application. Please note that trees with DBH >15cm (diameter at breast height) require a falling certificate to fall.

Safety practices should be outlined by contractors (noting that some of these areas are in the 2023 Prescribed Burn area (Airport Wetland), the 2023 Wildfire area (Long Lake, and Francis Lake), or older wildfire areas) such that all safety practices and standards with required PPE are met as per WorkSafe BC. Some safety practices that will be expected to be followed are outlined in Appendix B. The awarded contractor(s) will be responsible for all their own equipment and transportation. Contractors will be given paper or georeferenced PDF maps of block areas (shown in Appendix C-G). Weekly progress updates will be required to ensure operations proceed in a timely manner.

Due to the scale of the project and short time frame, ?aqam may decide to award to multiple contractors to ensure the time frame of the project is met. ?aqam will split up crews to specified areas to ensure there is an organized and detailed plan to conduct the work.

Below, each wetland has been outlined with some details of the site. The information provided will be in **SPH** (stems per hectare).

## STINK LAKE

At the time of the RFQ development, Stink Lake has three areas to be bided on for tree falling and tree brushing / bucking / limbing / piling, and has a total area of roughly 10.7 hectares (26.4 acres). Each area that can be bided on is shown in Appendix C. Below is further information on each of the areas along with the desired future stand conditions. All wildlife trees must be avoided, review of wildlife tree characterises will be done in the pre-work stage with the awarded contractor. The prescriptions will be finalized with the awarded contractor. The recommendations below are to help with contractor quoting and timelines. Please note that preference may be given to contractors that bid on the entire wetland area. Also note that trees with DBH>15cm require a falling certificate.

# Stink Lake – West

Timber Type: Fd7Py3 (70% Douglas Fir, 30% Yellow Pine)

Area: 5.1 hectares (12.6 acres)

## Estimated Current conditions (all species)

<15cm DBH = 700 SPH

>15cm DBH = 900 SPH

# Desired Future Stand Conditions: (all species)

<15cm DBH = 200-400 SPH (removal of 40-70%)

>15cm DBH = 400-600 SPH (removal of 30-55%)

# Stink Lake - South

Timber Type: Fd8Py2 (80% Douglas Fir, 20% Yellow Pine)

Area: 4.5 hectares (11 acres)

# Estimated Current conditions (all species)

<15cm DBH = 1800 SPH

>15cm DBH = 1000 SPH

#### Desired Future Stand Conditions: (all species)

<15cm DBH = 300-600 SPH (removal of 65-80%)

>15cm DBH = 300-600 SPH (removal of 40-70%)

# <u>Stink Lake – East</u>

Timber Type: Fd7Py3 (70% Douglas Fir, 30% Yellow Pine)

Area: 1.1 hectares (2.7 acres)

## Estimated Current conditions (all species.)

<15cm DBH = 700 SPH

>15cm DBH = 500 SPH

## Desired Future Stand Conditions: (all species)

<15cm DBH = 200-400 SPH (removal of 40-70%)

>15cm DBH = 300-400 SPH (removal of 20-40%)

Please note these numbers/ area's may have minor changes once the contract is awarded and that the prescriptions will be written in January 2025.

## **UNNAMED WETLAND**

At the time of the RFQ development, Unnamed Wetland has one area to be bided on for tree falling and tree brushing / bucking / limbing / piling with a total area of roughly 2.5 hectares (6.1 acres). This area is shown in Appendix D. Below is further information on the area along with the desired future stand conditions. All wildlife trees must be avoided, review of wildlife tree characterises will be done in the pre-work stage with the awarded contractor. The prescriptions will be finalized with the awarded contractor. The recommendations below are to help with contractor quoting and timelines. Please note that trees with DBH >15cm require a falling certificate.

# **Unnamed Wetland**

Timber Type: Fd7Py3(70% Douglas Fir, 30% Yellow Pine)

Area: 2.5 hectares (6.1 acres)

## Estimated Current conditions (all species)

<15cm DBH = 1200 SPH

>15cm DBH = 800 SPH

# Desired Future Stand Conditions: (all species)

<15cm DBH = 300-600 SPH (removal of 50-75%)

>15cm DBH = 300-600 SPH (removal of 25-60%)

Please note these numbers/ area's may have minor changes once the contract is awarded and that the prescriptions will be written in January 2025.

# LONG LAKE

At the time of the RFQ development, Long Lake has two areas but as they are small areas, we will have them be bided on **together** for tree falling and tree brushing / bucking / limbing / piling with a total area of roughly 3.4 hectares (8.5 acres). This area is shown in Appendix E. Below is further information on the areas along with the desired future stand conditions. All wildlife trees must be avoided, review of wildlife tree characterises will be done in the pre-work stage with the awarded contractor. The prescriptions will be finalized with the awarded contractor. The recommendations below are to help with contractor quoting and timelines. **Please note that trees with DBH >15cm require a falling certificate.** 

#### **Long Lake - NW**

Timber Type: Fd7Py2At1(Sx) (70% Douglas Fir, 20% Yellow Pine, 10% Trembling Aspen, <10% Spruce) Area: 0.5 hectares (1.2 acres)

# Estimated Current conditions (all species)

<15cm DBH = 300 SPH

>15cm DBH = 700 SPH

#### Desired Future Stand Conditions: (all ssp)

<15cm DBH = 100-200 SPH (removal of 30-65%)

>15cm DBH = 200-400 SPH (removal of 40-70%)

# Long Lake - East

Timber Type: Fd7Py3 (70% Douglas Fir, 30% Yellow Pine)

Area: 2.9 hectares (7.2 acres)

## Estimated Current conditions (all species)

<15cm DBH = 900 SPH

>15cm DBH = 600 SPH

# Desired Future Stand Conditions: (all species)

<15cm DBH = 300-500 SPH (removal of 45-65%)

>15cm DBH = 300-400 SPH (removal of 30-50%)

Please note these numbers/ area's may have minor changes once the contract is awarded and that the prescriptions will be written in January 2025.

#### FRANCIS LAKE

At the time of the RFQ development, Francis Lake has two areas but as they are small areas, we will have them be bided on **together** for tree falling and tree brushing / bucking / limbing / piling with a total area of roughly 1.1 hectares (2.8 acres). This area is shown in Appendix F. Below is further information on the areas along with the desired future stand conditions. All wildlife trees must be avoided, review of wildlife tree characterises will be done in the pre-work stage with the awarded contractor. The prescriptions will be finalized with the awarded contractor. The recommendations below are to help with contractor quoting and timelines. **Please note that trees with DBH >15cm require a falling certificate.** 

# Francis Lake - NW

Timber Type: Fd6Py4 (60% Douglas Fir, 40% Yellow Pine)

Area: 0.7 hectares (1.7 acres)

# Estimated Current conditions (all species)

<15cm DBH = 300 SPH

>15cm DBH = 800 SPH

#### Desired Future Stand Conditions: (all species)

<15cm DBH = 100-200 SPH (removal of 30-65%)

>15cm DBH = 400-600 SPH (removal of 25-50%)

## Francis Lake - South

Timber Type: Alder / Birch / Pine Area: 0.4 hectares (1.1 acres)

#### Estimated Current conditions (all species)

<15cm DBH = 500 SPH

>15cm DBH = N/A

## Desired Future Stand Conditions: (all species)

<15cm DBH = 100-200 SPH (removal of 60-80%)

>15cm DBH = N / A

Please note these numbers/ area's may have minor changes once the contract is awarded and that the prescriptions will be written in January 2025.

## AIRPORT WETLAND

At the time of the RFQ development, Airport Wetland has one area to be bided on for tree falling and tree brushing / bucking / limbing / piling and has a total area of roughly 4.2 hectares (10.5 acres). A DTA (Danger Tree Assessor) must conduct a preliminary Danger Tree Assessment for any potential hazard trees in the unit with an appropriate mitigation tactic before work commences (valid certificate required). This area is shown in Appendix G. Below is further information on the area along with the desired future stand conditions. All wildlife trees must be avoided, review of wildlife tree characterises will be done in the pre-work stage with the awarded contractor. The prescriptions will be finalized with the awarded contractor, recommendations below are to help with contractor quoting and timelines. Please note that trees with DBH >15cm require a falling certificate.

# Airport Wetland

Timber Type: Fd5Pl3Py1Lw1 (50% Douglas Fir, 30% Lodgepole Pine, 10% Yellow Pine, 10% Western Larch) Area: 4.2 hectares (10.5 acres)

# Estimated Current conditions (all species)

<15cm DBH = 1500 SPH

>15cm DBH = 800 SPH

# Desired Future Stand Conditions: (all species)

<15cm DBH = 300-600 SPH (removal of 60-80%)

>15cm DBH = 300-600 SPH (removal of 25-60%)

Please note these numbers/ area's may have minor changes once the contract is awarded and that the prescriptions will be written in January 2025.

# **REGULATORY APPROVALS**

- The Contractor is responsible for complying with all Federal, Provincial, and Municipal legal regulatory requirements and all applicable environmental legislation.
- The Contractor shall comply with the province of British Columbia's requirements for spill prevention and response.

# **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*
- If awarded the contract, each of these will need to be submitted to the ?aqam Lands Department before work begins.

#### **SCHEDULE**

- ?aqam will award the contract(s) resulting from this Request For Quote (RFQ) to the responsible Contractor(s) whose offer conforming to the RFQ will be most advantageous to ?aqam, based on price competitiveness, qualifications, and previous work with ?aqam or other Ktunaxa First Nations.
- The successful contractor(s) will be contacted by the ?aqam Lands Department shortly after January 15<sup>th</sup> and a service agreement will be created. Once this is signed and all necessary documents are received by the Lands Department, a start date will be set. The contractor must be done all works no later than April 1<sup>st</sup>, 2025.
- If you are interested in having a tour of the area, please reach out to the Lands Manager, Skylar Nikkel, by **12pm MT on January 8**<sup>th</sup>. Please note that the ?aqam office will be **closed** from December 20th 2024 January 6<sup>th</sup>, 2025 (but you can email during this time and we will reach out to you to discuss a tour date.)

# **REQUIRMENTS**

- Equipment for work needed must be supplied by the contractor. This includes: transportation, specified equipment with trained personal for operators and mechanics, proper PPE, safe supply of fuel source (and secondary containment source), and an emergency spill kit.
- Proof of proper insurance (outlined above under insurance section)
- For falling activities (which are trees with a DBH >15cm) a valid falling certificate must be submitted
- For danger tree assessments, a DTA certificate must be submitted

# **HOW TO APPLY**

Complete the attached form shown in Appendix H (Wetland Tree Thinning Contractor Questionnaire) and either email or submit a hard copy to Skylar Nikkel, Land Manager, snikkel@aqam.net, by **4:00pm** Mountain Time on **January 15th, 2025.** Make sure to include any relevant certificates and insurance documents.

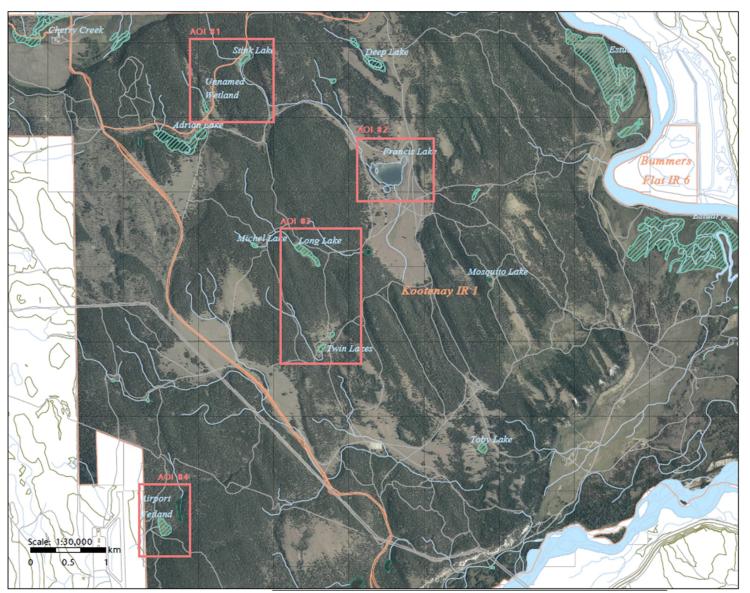
The contract(s) to be awarded from this RFQ will be made to the prospective contractor(s) whose offer conforms most to this RFQ, being most advantageous to ?aqam, price and other factors considered. The following factors will be used to score each offer received, forming the basis for awarding this contract:

- Experience of activities
- Demonstrated equipment and qualifications for activities (eg. Certificates)
- Competitive \$/hour for all personnel working on the project.
- Preference will be given to Contractors who are ?aqamnik, Ktunaxa, or of other First Nations descent.

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

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

# **Appendix A:** Wetland Locations





# Kootenay IR 1 ?akaqta?hat (Wetland) Restoration Phase II - Design

#### Legend

?aḍam Reserve Lands

Roads

- Contours, 20n

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 ?aqam, the Province of BC and



# **Appendix B:** Safety Standards To Be Followed

(Company Logo) Company Name

# Juvenile Spacing Thinning and Mechanical Brushing

# SAFE WORK PROCEDURE

#### PERSONAL PROTECTIVE EQUIPMENT

- Hard hat of contrasting colour
- Hearing Protection
- Leg protection (bucking pants)
- Eye and face protection (visor)
- Hand protection (cut resistant gloves)
- High visibility apparel
- Safety footwear (caulked boots)
- Appropriate clothing for the weather conditions including rain jacket and pants; insulating layers; extra gloves and head coverings for cold and/or wet weather.
- Whistle and /or portable radio
- Personal first aid kit including a large pressure bandage for any large cuts and EpiPen if allergic to bee stings.

#### **HEALTH CONSIDERATIONS**

Thinning or juvenile spacing and mechanical brushing is very physical work with my hazards associated with a forested environment including:

- Mosquitoes have repellent available and
- Bees and Wasps If any identified, inform the rest of the crew.
- Ticks Check frequently and on a regular basis for ticks on clothing and keep pant and shirt cuffs and sleeves tucked-in. Workers should check each other also.
- Wildlife (e.g., bears, cougars, moose...) –
  Check the work area for any wildlife before
  and during operations that could have come
  onto the site.

To maintain good health before and during work:

- Get a good night's sleep.
- Be mentally and physically prepared to begin work, including stretching and warming up before and during work.
- Eat health, nutritious meals and refrain from using drugs and alcohol.
- Prepare nutritious meals and snacks; and bring lots of water and electrolytes replacements for the workday.
- Bring personal care products including medical prescriptions and medications; sunscreen; and lotions

 Take frequent small breaks for water and nutrition; and to stretch.

#### PRE-WORK PROCEDURES

Prior to conducting a pre-work meeting with the crew, the supervisor or foreman should complete a pre-work meeting with the client and review the prescription or site plan, ensure that they understand the site plan requirements; and then visit the worksite and complete a documented inspection and hazard assessment, mapping any hazards that have not been detailed or found in the site plans.

#### PRE-WORK MEETING WITH CREW

- Conduct a pre-work meeting with crew to review and discuss hazards (and methods to control them); site plan (e.g., cutting prescription) and maps, and emergency response procedures.
- Review on maps, allocated work areas or strips for each crew member
- Discuss who are the designated first aid attendants and the location of first aid supplies, ETV and stretcher if appliable.
- A review of emergency response plan procedures including muster point; emergency communications and signals (e.g., whistle, radio and horns); fires response; first aid procedures and evacuation procedures.
- Establish communication and check-in procedures and intervals; and don't work alone.
- Re-fuel in a designated, safe area (clearings); carry personal first extinguisher and no smoking.
- Fire protection reporting and response procedures and location of fire equipment and tools.

Hazards to be aware of could include:

- Danger trees and overhead hazards
- Steep ground, rocky terrain, gullies, holes and debris
- Weather conditions including snow and ice; high winds; rain; flog and poor visibility conditions; heat and high fire hazard conditions.
- Insects and wildlife as previously mentioned.

(Company Logo) Company Name

# Juvenile Spacing Thinning and Mechanical Brushing

# SAFE WORK PROCEDURE

#### **SPACING AND THINNING TECHNIQUE**

The following general rules should be followed for spacing and thinning operations:

- Each crew member is assigned a work area or strip that is flagged out.
- The worker should work uphill in a zig-zag pattern covering the whole strip, looking ahead for hazards and stem distribution.
- Stay aware of your position in the work area and the position of the adjacent workers.
- Keep stump heights low and less than 30 cm; and cut below the lowest live branch.
- All cuts should be parallel to the ground to avoid sharp points that can injure other workers and wildlife.
- · All stems cut cleanly with no hinges.
- Accidentally damaged trees must be cut.
- Cut trees should not lean on crop trees.
- All conifers, other than crop trees taller than one metre must be cut.
- Cut small stems and then large ones, leaving crop trees of good form and vigour.
- Larger stems should be fallen with a small undercut.
- Generally, all woody vegetation competing with crop trees should be cut back at least one metre.
- Reduce spacing by 50 percent around natural openings, old skid trails and roads.

# CHAINSAW USE

- Use a smaller, appropriate sized chainsaw with medium sized bar, that reduce the amount of bending over to cut stems.
- Check that the chainsaw is running well and that the muffler is adequate.
- Carry a personal first extinguisher and personal first aid kit.
- The chainsaw sharp, tension set, saw properly maintained; and extra sharp chains are available.
- Have available tools available for maintaining the saw including chain sharpening tool (file guides); files; screwdriver; and grease gun.

- Check that chain brake is functioning properly.
- Check that there is sufficient mixed gas and chain oil for the work day.
- · Refuel after the engine has cooled down.
- Chain brake engaged to control fast idle start.
- Maintain good balance and a secure footing when operating; and keep chainsaw below waist height.

#### **BRUSH SAW USE**

As per the items listed under chainsaw use and including:

- Avoid using brush saws on steep slopes and use only a ground level to moderately sloping terrain.
- Ensure that the saw properly maintained.
- Cut on the left side of the blade so that machine pulls away from operator.
- Saw blade sharp and extra saw blades are available.
- Ensure that the cutting head is adjusted properly and tight.
- The guard is intact.
- Harness properly fit and adjusted to prevent back strain.
- Shut off engine before putting cutter down and before cleaning out clogged or stuck cutter.

# **Appendix C:** Stink Lake Tree Thinning Polygons





Kootenay IR 1 ?akaqŧa?haŧ (Wetland) Restoration Stink Lake Tree Thinning

# Legend

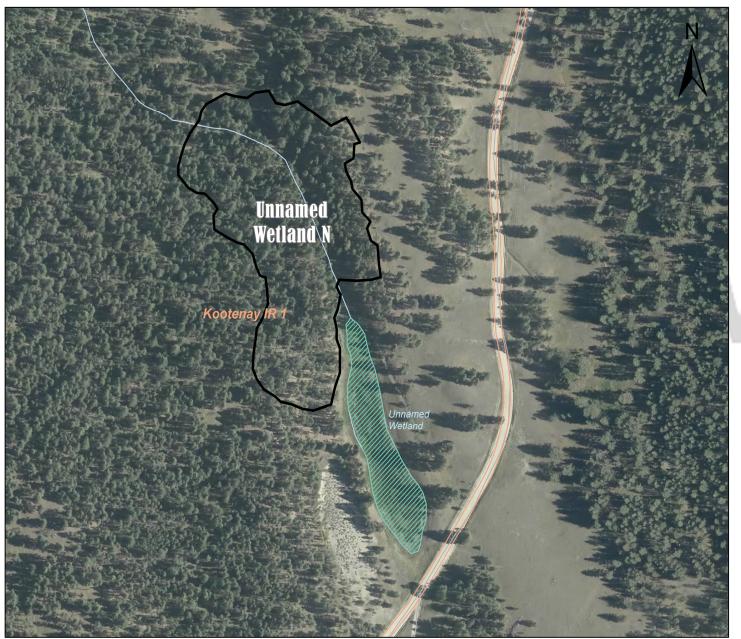
- Marked Tree Thinning Areas
- 2 ?aqam Reserve Lands
- Roads
- Creeks

## Wetlands by Type

- Wetland
- Kettle Lake
- Receiving Site



# **Appendix D:** Unnamed Wetland Tree Thinning Polygons





Kootenay IR 1 ?akaqła?hał (Wetland) Restoration Unnamed Wetland Tree Thinning

#### Legend

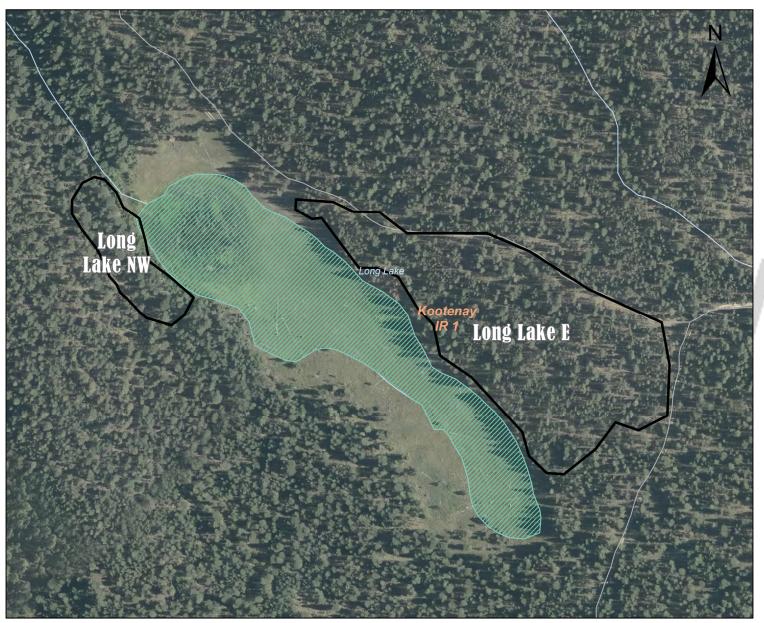
- Marked Tree Thinning Areas
- 2 ?aqam Reserve Lands
  - Roads
- Creeks

# Wetlands by Type

- **Wetland**
- Kettle Lake
- Receiving Site



# **Appendix E:** Long Lake Tree Thinning Polygons





Kootenay IR 1 ?akaqŧa?haŧ (Wetland) Restoration Long Lake Tree Thinning

## Legend

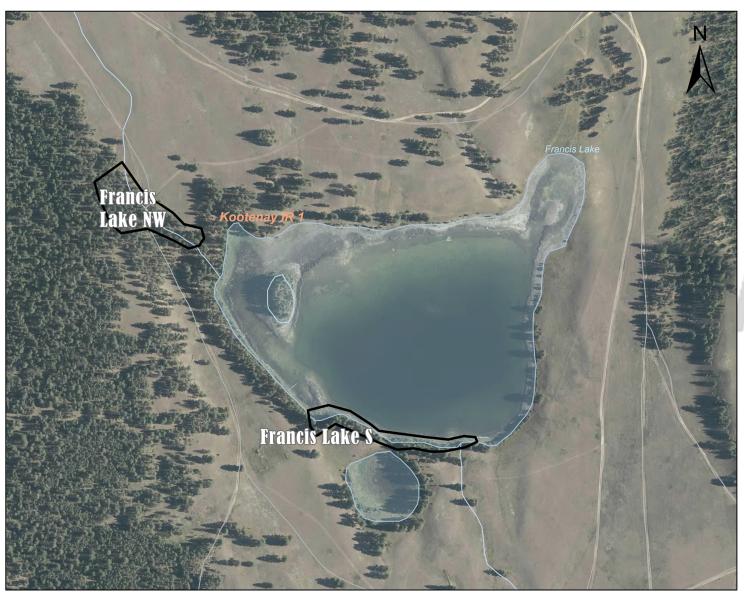
- Marked Tree Thinning Areas
- ☐ ?aqam Reserve Lands
- Roads
- Creeks

## Wetlands by Type

- Wetland
- welland
- Kettle Lake
- Receiving Site



# **Appendix F:** Francis Lake Tree Thinning Polygons





Kootenay IR 1 ?akaqŧa?haŧ (Wetland) Restoration Francis Lake Tree Thinning

#### Legend

- Marked Tree Thinning Areas
- 2 ?aqam Reserve Lands
- Roads
- Creeks

## Wetlands by Type

- Wetland
- Kettle Lake
- Receiving Site



# Appendix G: Airport Wetland Tree Thinning Polygon





Kootenay IR 1 ?akaqŧa?haŧ (Wetland) Restoration Airport Wetland Tree Thinning

#### Legend

- Marked Tree Thinning Areas
- ☐ ?aqam Reserve Lands
- Roads
  - Creeks

#### Wetlands by Type

- **Wetland**
- Zz vvellanu
- Kettle Lake
- Receiving Site



# Appendix H: Wetland Tree Thinning Contractor Questionnaire

The deadline for the submission is **4:00pm** Mountain Standard Time on **Wednesday**, **January 15<sup>th</sup>**, **2025**. One completed electronic or hard copy of the submission must be received by ?aqam on or prior to the indicated deadline addressed to: Skylar Nikkel, Land Manager, ?aqam, 7470 Mission Road, Cranbrook, BC V1C 7E5. Electronic submission can be emailed to snikkel@aqam.net.

Contractor	Name:
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Address:

Phone:

Email:

Based on the above activities (falling, tree brushing / bucking / limbing / piling, DTA), which would be of interest to the bidding contractor? What locations are you interested in doing these activities? Please provide the areas and activities of interest. Please note that trees with DBH >15cm require a falling certificate.

Example

Stink Lake E – Falling, brushing / bucking / limbing / piling Airport Wetland – DTA, Falling



Does the Contractor have all necessary tools and safety equipment needed for this work? Please outline what will be used:

Provide all personnel with applicable training and experience to conduct this work. Please list their name, past experience, any pervious work with Ktunaxa bands or the Nation, and any relevant certificates.
Provide personal hourly rates (including any equipment costs) for all work that is of interest to the bidding contractor.
Based on the above information, and the capacity of the contractor, please provide an estimated timeline / full budget for the applicable work per area. (Note: if multiple areas are bided on, please ensure you outline timeline/budget for each area and for each activity).
Please provide proof of all applicable insurance and relevant certificates.