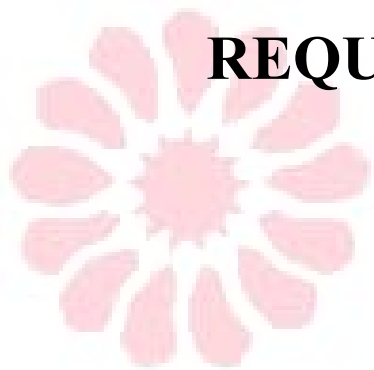


ᑭᐱᑭᐱ Community

Department of Lands and Natural Resources



REQUEST FOR PROPOSAL

LiDAR Services

October 2025

Issue Date: October 14, 2025

Closing Date: October 28, 2025

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

Telephone: (236) 361-8323

Email: pgravelle@aqam.net

INTRODUCTION

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

The ʔaąam Lands and Natural Resources Department is seeking qualified contractors to complete an airborne LiDAR flight and analysis for approximately 19,300 acres of ʔaąam reserve lands along the Kootenay River including Kootenay 1 (18,400 acres), St Mary's 1 (25 acres), Bummers Flat (192 acres), Isidore's Ranch 4 (685 acres), and Cassimayooks 5 (155 acres) (Appendix A). The collected data will be used to generate high-quality elevation and vegetation models that will support habitat mapping, conservation, and land management planning efforts.

A service agreement will be issued to the successful contractor based on the terms, specifications, and provisions in the submitted proposal. All equipment, personnel, and logistics required to complete the work are the responsibility of the contractor.

BACKGROUND

The ʔaąam Lands and Natural Resources Department continues to advance initiatives that strengthen stewardship, ecological restoration, and sustainable management of community lands. Over the past several years, a series of planning and restoration projects have helped build a stronger understanding of the reserve's ecosystems, including wetlands, riparian areas, and wildlife habitats.

The 2023 wildfire on the ʔaąam reserve significantly altered the landscape. Burn severity, vegetation loss, and post-fire erosion have reshaped terrain and habitat conditions, making it difficult to rely on previous datasets for current planning needs. To effectively assess these changes, updated and accurate spatial information is required.

Through this LiDAR acquisition, ʔaąam aims to establish a new baseline for post-fire recovery, wildlife management (including species at risk) and landscape assessment. The data will be used to:

- support wetland monitoring and restoration efforts.
- improve understanding of wildlife habitat, movement corridors, and suitability across a range of habitat types;
- inform forest management and recovery planning; and
- enhance long-term land-use and stewardship planning that reflects current on-the-ground conditions.

This project reflects ʔaąam's ongoing commitment to caring for the land in a way that honours its ecological, cultural, and community values. Updated spatial data will help guide restoration and monitoring efforts in the years ahead, ensuring that post-fire management and future planning are grounded in a clear understanding of the land as it exists today.

PROJECT DETAILS

The successful contractor will be responsible for the following:

1. Data Collection

- Conduct an airborne LiDAR survey of the ʔaqam reserve lands (as shown in Appendix A). Land cover in the mapping area includes floodplain, forested, and agricultural topography.
- Minimum point density of 8 points per m² is preferred.
- Vertical accuracy must meet or exceed ± 10 cm RMSE.
- Include necessary ground control points and calibration procedures.
- Coordinate flight timing with ʔaqam to ensure ideal ground and vegetation conditions.

2. Data Processing and Deliverables

The following products are required:

- Digital Elevation Model (DEM)
- Digital Terrain Model (DTM)
- Canopy Height Model (CHM)
- Classified Point Cloud Data (LAS format)

All data should be delivered in GIS-compatible formats (shapefile, or equivalent). A short technical report summarizing collection methods, accuracy results must also be provided.

3. Deliverables

- Classified point cloud (LAS format)
- DEM, DTM, and CHM layers
- Metadata and accuracy assessment
- Summary report (PDF)
- External hard drive or secure digital file transfer of all data

TIMELINES

Planned Flight Window: Fall 2025, as close to October 30st as possible, to take advantage of leaf-off and pre-snow conditions, to ensure clear ground and vegetation conditions for accurate LiDAR collection.

Data Processing & Deliverables: All data processing, models, and reports must be completed and delivered by **April 30, 2026**.

Contractors should provide a work plan indicating when flights will occur, estimated processing time, and schedule for interim check-ins or progress updates.

PROPOSAL REQUIREMENTS & EVALUATION

Proposals will be evaluated based on the following criteria, which also outline the expectations for bidders:

- **Experience and Qualifications:** Demonstrated experience completing LiDAR acquisition and processing projects, particularly for ecological and habitat applications. Provide examples of similar past projects and describe key personnel who will be involved, including approach explicitly connected to project goals/objectives. Please highlight any previous work done with First Nations.
- **Technical Approach:** Clear description of equipment, flight plan, point density, processing workflow, classification methods, QA/QC procedures, and accuracy assessment. Deliverables must include DEM, DTM, CHM, classified point clouds (LAS format), metadata, and a summary report.
- **Project Schedule and Timeline:** Ability to complete airborne LiDAR collection in Fall 2025, before significant snowfall, and final deliverables by April 30, 2026. Include proposed schedule and any progress reporting plan.
- **Cost and Value:** Competitive pricing that clearly outlines all costs, including flight, processing, data delivery, and incidentals.
- **Compliance and Insurance:** Contractors must carry Comprehensive General Liability Insurance (\$1M minimum) and WorkSafeBC coverage. Proof must be provided before work begins.
- **Community Preference:** Preference may be given to contractors who are ʔaąamnik, Ktunaxa, or other Indigenous-owned firms.

Proposals that do not meet these requirements or are incomplete will not be considered.

SUBMISSION DEADLINE

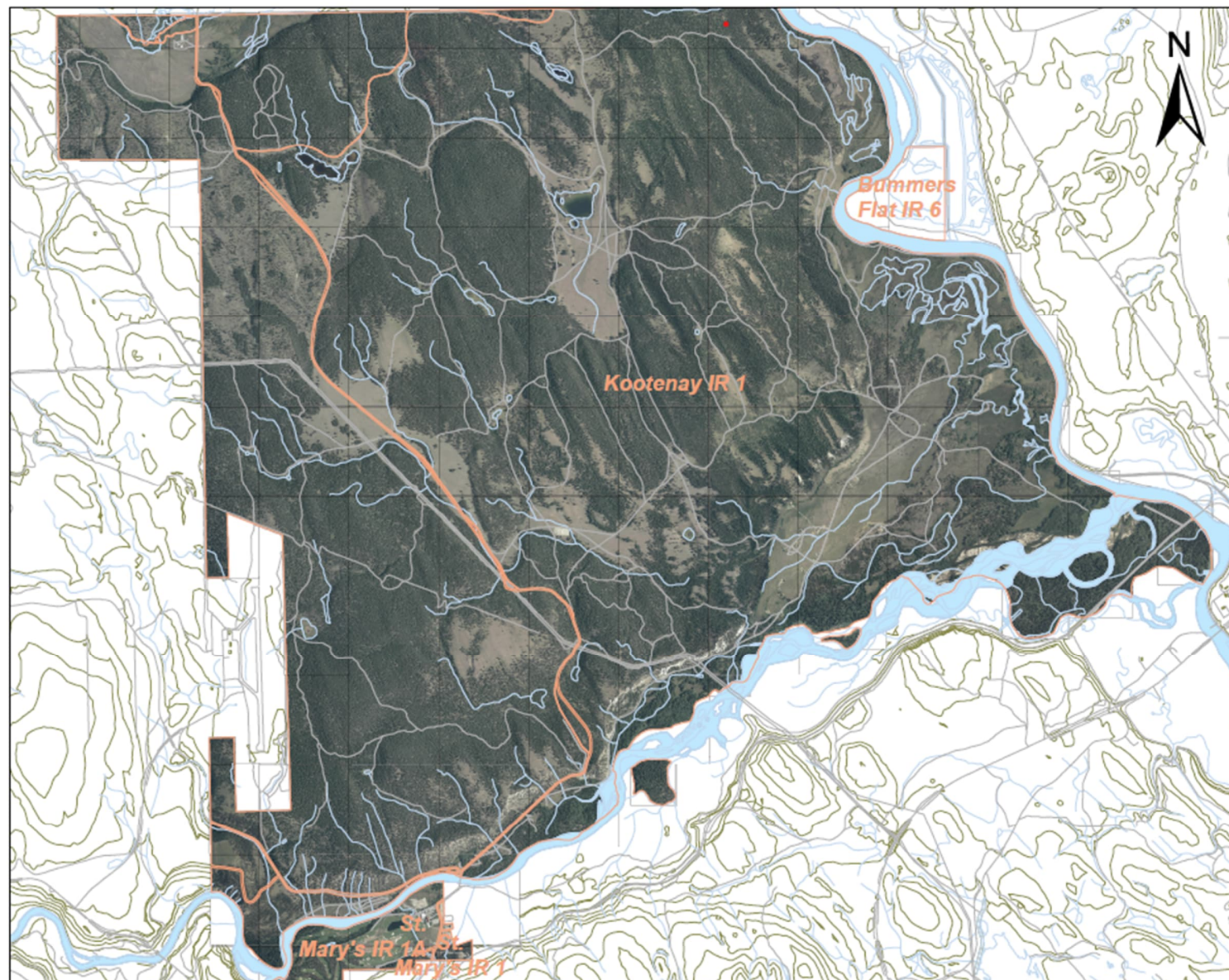
Please reach out if you have any questions. Submit one complete proposal by **12:00 PM MST on October 28th, 2025**, by email or hard copy to:

Payton Gravelle
Lands Manager
ʔaąam, 7470 Mission Road, Cranbrook BC V1C 7E5
Email: pgravelle@aqam.net

*****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

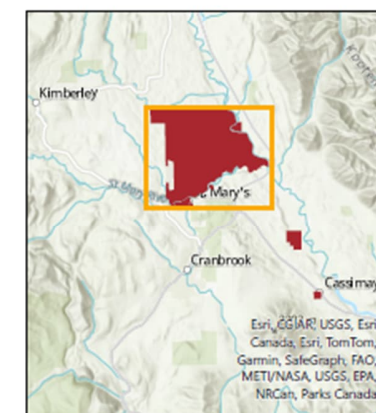
Appendix A: Map of Location, Kootenay IR # 1



Legend

- ʔaqam Reserve Lands
- Roads
- Contours, 20m
- Creeks
- Rivers

Map updated February 20th, 2024 by Skylar Nikkel, Lands & Resources Project Coordinator. Data provided by ʔaqam, the Province of BC and Canfor.



Appendix B: Location of All ʔaq̓am Reserve Lands

