



Jamestown S’Klallam Tribe
“The Strong People”

REQUEST FOR PROPOSALS

TOPOBATHY LIDAR DATA COLLECTION SERVICES

ISSUED NOV 9 2022

The purpose of this RFP is to award a contract to a qualified entity to collect topobathy (green) LiDAR data in the Dungeness watershed.

Proposals must be submitted electronically by 5pm PST on Thursday December 8, 2022 to cjohnson@jamestowntribe.org

Jamestown S’Klallam Tribe
Natural Resources Department

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Section 1. Introduction

1.1 Purpose

The purpose of this Request for Proposals (RFP) is to solicit proposals for a qualified contractor to provide airborne topobathymetric LiDAR data collection services in the Dungeness River watershed in northwest Washington State. Topobathymetric (topobathy) LiDAR combines traditional Near-IR laser (1064 nm) with Green (532 nm) laser to produce a seamless surface model that contains terrestrial and shallow submerged bathymetry. These data will support the Jamestown S’Klallam Tribe’s (Tribe) habitat and environmental planning programs. One contract will be awarded from this RFP at the Tribe’s discretion, after funding is received. Federal funding will be used for this project, so contractors must adhere to federal requirements regarding contracting. For example, if the contractor chooses to sub-contract any of the work, the contractor must use good-faith efforts to engage Disadvantaged Business Enterprises (DBEs), including Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), and Small Business Enterprises (SBEs). Contractor selection will comply with Tribal and Federal policies on preference for Tribally owned businesses and DBEs.

1.2 Budget

The Jamestown S’Klallam Tribe will receive federal funds for this project from the US Environmental Protection Agency (EPA) after the pending approval of a Quality Action Project Plan (QAPP). One contract will be awarded for this project. The Tribe may request additional services from the contractor as may be useful for the scope of the project.

1.3 Deadline for Proposals

Proposals must be submitted **electronically by 5pm PST on Thursday December 8, 2022.**

Section 2. Background Information

2.1 Project Background

The goal of this project is to provide deliverables derived from topobathy LiDAR to the Tribe. Topobathy LiDAR, or green LiDAR, involves the use of two lasers to evaluate the surfaces that may be submerged in water. All topobathy LiDAR data collected must adhere to USGS quality level 1 (QL1) standards, as well as other standards documented in the Scope of Work (SOW) and Quality Assurance Project Plan (QAPP).

This data will be used to evaluate river channel topography for the lower 16 miles of the Dungeness River, and for the lower 2.1 miles of its largest tributary the Gray Wolf River. The Tribe last collected topobathy LiDAR for this area in 2016. Data generated by this project will be used to evaluate habitat restoration projects completed since 2016. It will establish a new

baseline for river conditions that will be used to both evaluate ongoing restoration projects and inform future projects.

Section 3. Scope of Work & Contract Information

3.1 Description

Topobathymetric LiDAR will be collected using an appropriate laser system device or devices. Data will be collected according to the USGS QL1 specifications (see Table 1 below). The topobathymetric LiDAR collection will be orchestrated during the best possible conditions for success which include no fog, rain, haze, snow, or any conditions affecting water clarity. Topobathy LiDAR will not penetrate dense aquatic vegetation or turbid waters. Therefore, the contractor conducting LiDAR flights will coordinate the timing of data acquisition with Jamestown S’Klallam Tribe staff to avoid inclement weather and periods of turbidity. The contractor must be prepared to conduct the topobathy LiDAR survey within 48 hours of notice. Regardless of conditions, water depth penetration greater than 2 secchi depths will not be expected by the Jamestown S’Klallam Tribe.

3.2 Area of Interest



Figure 1 LiDAR Area of Interest

The area of interest (AOI) for this project includes 12,395 acres in northwest Washington State along the Dungeness and Gray Wolf rivers. It begins at the Dungeness River's estuary and continues upriver 16 miles to the confluence with the Gray Wolf River, then continues an additional 2.1 miles up the Gray Wolf River. The AOI extends 3000 feet on either side of the rivers. In total, topobathy LiDAR will cover an area 6000 feet wide along 18.1 miles of river.

3.3 Quality Control

The contractor is responsible for complying with all quality standards listed in the QAPP. Contractors must provide control services necessary to control the flight. These may include using ground survey points to monitor accuracy and correct bias and using differential GPS ground control points (GCP) to supplement the GPS used during flights.

Data acquisition must meet the USGS Quality Level (QL) 0 or 1 for topographic data.

	Vertical Accuracy RMSEz (cm)	Nominal Pulse Spacing (NPS) meters	Nominal Pulse Spacing (NPD) points per square meter	Digital Elevation Model (DEM) cell size (meters)
QL ₀	5 cm	<= 0.35 m	>= 8 pts/square meter	0.5 m
QL ₁	10 cm	<= 0.35 m	>= 8 pts/square meter	0.5 m

Table 1: USGS Quality Level Specifications

In addition, swath overlap for LiDAR data collection flights must be $\geq 50\%$ and data collection should include a buffer around the AOI to ensure complete coverage on the area. The spatial distribution of usable points must be uniform and regular.

All geospatial data generated and acquired will be reviewed for:

- Best availability
- Appropriateness
 - Scale
 - Accuracy
 - Resolution
 - Time period
 - Format
 - Content
- Topology errors
 - Overlap

- Gaps
 - Sliver polygons/segments
- Attribute errors
- Geometry errors
 - Empty geometry

3.4 Deliverables

The coordinate system for all deliverables must be NAD 1983 HARN State Plan Washington North FIPS 4601 (US Feet).

Points:

- LAS file of point returns

Rasters:

- Topobathymetric DEM: *units in feet, .tif file format*
- Highest Hit DSM: *units in feet, .tif file format*

Vectors:

- Survey Outline: *polygon shapefile*
- Area of Interest: *polygon shapefile*
- Raster Tile Index: *polygon shapefile*
- Water's Edge: *line or polygon shapefile*
- Bathymetric Coverage: *polygon shapefile*
- Flightline Swaths: *polygon shapefile*

Reports:

- Methods, results, flight line vectors, accuracy assessments: *PDF or Word file*
- FGDC-compliant Metadata

3.5 Contractor Responsibilities

In addition to providing the Tribe with the deliverables listed in section 3.4, the contractor will have other responsibilities that may include but are not limited to:

- Developing and documenting procedures used
- Being available to conduct the topobathy LiDAR surveys within 48 hours of notice of good conditions
- Delivering final products as per schedule

- Corresponding with the Tribe’s employees about relevant project materials, tasks, and anomalies
- Supplying all necessary labor, equipment, tools, and other materials necessary for the project
- Complying with Tribal and Federal policies on subcontracting.

Section 4. Submission Information

4.1 Proposal Content

Proposals must show that potential contractors (offerors) have a comprehensive understanding of the project, provide a management plan they intend to follow, describe how the plan will accomplish the work documented in the SOW, and list relevant experience and qualifications. The offerors must also submit cost proposals that document all direct and indirect costs associated with the contract. Overly lengthy and costly proposals are discouraged.

4.2 Contractor Officer Information

Contract Officer:	Chandra Johnson
Email:	cjohnson@jamestowntribe.org
Telephone:	(360)681-5623
Address:	Jamestown S’Klallam Tribe Natural Resources 1033 Old Blyn Highway Sequim, WA 9832

The Contract Officer will be the sole point of contact for this RFP.

4.3 Prospective Offerors

An offeror is a person or entity that submits a proposal in response to this RFP. The offeror must be in the business of regularly selling the services documented in the RFP and must have sold these services before. The offeror must be licensed and qualified to perform the services offered.

4.4 Cancellation & Additional Terms and Conditions

The Tribe reserves the right to add terms and conditions during contract negotiations. These terms and conditions will be within the scope of the RFP and will not affect the proposal evaluations. In addition, the Contract Officer may cancel any part or the whole of the RFP.

4.5 Submission Instructions & Proposal Closing Date

Proposals should be submitted as a Word or PDF document to the Contract Officer. All proposals must be submitted by email by 5pm PST on Thursday December 8, 2022.

Section 5. Evaluation Procedure

5.1 Technical Proposal

Proposals will be evaluated based on the following criteria:

- **Tribal or DBE:** Did the offeror provide evidence that they are a tribally owned or Disadvantaged Business Enterprise?
- **Understanding:** has the offeror shown a thorough understanding of the purpose and scope of the project, as well as the timeline and any problems that may arise? Did the offeror demonstrate an understanding of the deliverables and requirements?
- **Project Plan:** will the proposed plan accomplish the goals outlined in the SOW? How well will the plan support the project requirements? Can the offeror meet the specifications and schedule outlined? Are team organization, accountability, and lines of communication clearly defined?
- **Experience and Qualifications:** does the offeror have the qualifications and experience necessary to perform the tasks outlined in the RFP? How well has the offeror completed similar projects on time and within budget? Has the offeror provided references to support its experience and expertise?
- **Contract Cost:** is the pricing reasonable? How does the offeror's pricing compare to its competitors'?