

REQUEST FOR PROPOSALS

Fish Counting System for Bristol Bay Watershed

Issued by: Bristol Bay Regional Seafood Development Association

Issue Date: October 3, 2025

Proposal Due Date *UPDATED: 01/23/26*

Project Duration: 2-3 years (multi-year pilot project)

1.0 INTRODUCTION

1.1 Background

The Bristol Bay Regional Seafood Development Association (BBRSDA) is soliciting proposals from qualified vendors for a hydroacoustic or alternative technological fish counting system to accurately identify and count anadromous fish migration in the rivers of the Bristol Bay watershed. This system will support fisheries management, stock assessment, and environmental monitoring during the annual salmon migration.

1.2 Project Objectives

The primary objectives of this project are to:

- **Accuracy & Automation:** Obtain accurate, automated, and real-time or near-real-time fish counts throughout the monitoring season
- **Verification Capability:** Provide high-resolution imagery for manual and technological verification, enabling species identification and differentiation where technologically feasible
- **Environmental Resilience:** Operate effectively under challenging environmental conditions, including periods of high turbidity, variable water temperatures, and fluctuating flow conditions
- **Remote Deployment:** Deliver a robust, durable, and reliable system suitable for deployment in remote locations during salmon migration
- **Comparative Analysis:** This multi-year pilot project (2-3 years) will complement and provide comparative data to ongoing sonar and tower (manual) counting projects operated by the Alaska Department of Fish and Game (ADF&G)
- **Year 1 Focus:** The initial deployment will target the Nushagak River, positioned near ADF&G's existing sonar site to enhance the Department's counting of the Chinook salmon migration

2.0 SCOPE OF WORK AND TECHNICAL REQUIREMENTS

2.1 System Configuration

Proposers must provide a complete, turnkey system solution including all necessary hardware, software, installation, training, and operational support. The proposed system must include:

Transducer (or other) Technology: • Specify transducer type (e.g., split-beam sonar, imaging sonar such as ARIS or DIDSON, or alternative technologies) • Detail configuration options (e.g., fixed bankside mount, mobile mount, multi-beam arrays) • If proposing different technology such as cameras, please provide the technological specifications.

Data Acquisition and Processing: • Control unit with integrated power management, data storage, and real-time processing capabilities • System must operate continuously for up to 24 hours per day throughout the monitoring season • Specify data storage capacity and backup/redundancy systems • Detail communication capabilities for remote data access

Data Analysis Software: • Automated fish detection, tracking, and counting capabilities • Machine learning algorithms (such as DeepSort or equivalent) for enhanced accuracy are highly desirable

Power Solutions: • Detail power requirements and solutions for remote installation (such as battery with solar charging)

Environmentally Appropriate Installation • Provide weatherproof enclosures and robust mounting hardware suitable for the installation site and not destructive to the site.

2.2 Performance Specifications

Proposers must provide detailed performance specifications including:

Counting Accuracy: • State expected accuracy percentages under optimal conditions • Provide accuracy estimates under varying environmental conditions (turbidity, flow rates, temperature) • Detail confidence intervals and validation methods

Detection Range: • Specify effective detection range for target species (Chinook, Sockeye, Chum, Coho, and Pink salmon) • Maximum and minimum detection distances • Coverage area dimensions (width and depth)

Species Differentiation: • Describe capability to differentiate between salmon species (Chinook, Sockeye, Chum, Coho, and Pink salmon) • Detail methodology for species identification (size-based, behavior-based, or other characteristics) • Accuracy rates for species differentiation

Environmental Operating Conditions: • Indicate how the system will be able to operate in conditions such as temperature, water velocity and turbidity levels.

Data Quality and Reliability: • Describe data quality assurance measures • Error detection and correction capabilities

2.3 Installation and Support Services

On-site Installation: • Must provide on-site installation • System calibration and comprehensive testing • Integration with existing infrastructure where applicable • Site-specific optimization and configuration

Training: • If on-site operation is not automated or provided by the proponent, comprehensive training for personnel on system operation, maintenance, and data analysis must be provided

Ongoing Support: • Detail warranty, technical support, and options for software updates and future maintenance

3.0 PROPOSAL REQUIREMENTS AND SUBMISSION

All proposals must be submitted by **11:59 PM Alaska Standard Time on January 23, 2026** and include the following components:

3.1 Required Proposal Sections

Letter of Transmittal: • Brief cover letter introducing your company and proposal

Executive Summary: • Concise overview of your proposed solution (2 pages maximum)

Technical Proposal: • Detailed description of proposed hardware and software components • Fish counting methodology • Performance specifications including accuracy estimates and environmental tolerances • Installation and training plan • System warranty and support plan details • Risk mitigation strategies

Company Qualifications: • Company background and years of relevant experience • Demonstrated experience with similar fish counting projects • Experience with remote location deployments in harsh environments • Client references from comparable projects (minimum of 2) • Resumes of key project personnel • Relevant certifications and accreditations

Cost Proposal: • Detailed itemized cost breakdown including:

- Hardware components
- Software licenses

- Installation
 - Training services
 - Ongoing support and maintenance
 - Other anticipated costs
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4.0 EVALUATION CRITERIA

Proposals will be evaluated using the following weighted criteria:

Technical Merit (40%) • The clarity, effectiveness, and innovation of the proposed solution

Company Qualifications and Experience (25%) • Relevant project experience • Technical expertise and personnel qualifications • Client references and past performance • Financial stability and project capacity

Cost Effectiveness (20%) • Total project cost competitiveness • Value proposition and return on investment • Cost transparency and completeness • Long-term operational cost considerations

Installation and Support Plan (15%) • The completeness and quality of the proposed installation, training and support services

5.0 PROJECT TIMELINE AND NEXT STEPS

UPDATED on 12/22/25. **Proposal Submission Deadline:** January 23, 2026 **Proposal Review Period (including vendor presentations if required):** January 24- February 16, 2026 **Contract Award:-** By March 1, 2026 (As soon as possible after review) **Installation Target:** Spring/Early Summer 2026 **System Commissioning:** Prior to 2026 salmon run

6.0 SUBMISSION INSTRUCTIONS AND CONTACT INFORMATION

Electronic Submission: Submit all proposals electronically to: board@bbrsda.com

Primary Contact: Frances Bursch, BBRSDA Program Manager

Email: frances@bbrsda.com

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BBRSDA reserves the right to reject any or all proposals, to negotiate with selected proposers, and to award contracts based on the best interests of the BBRSDA.