



Innerspace Exploration Team

REQUEST FOR PROPOSAL

North Puget Sound & Neah Bay Community Led
Derelict Gear Removal

- Part 1: High Resolution Returnable Sidescan Sonar Survey
- Part 2: ROV Derelict Gear Recovery & ROV Training with STEAM Experiences
- Part 3: Diving Derelict Gear Recovery

Innerspace Exploration Team
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February 13, 2024

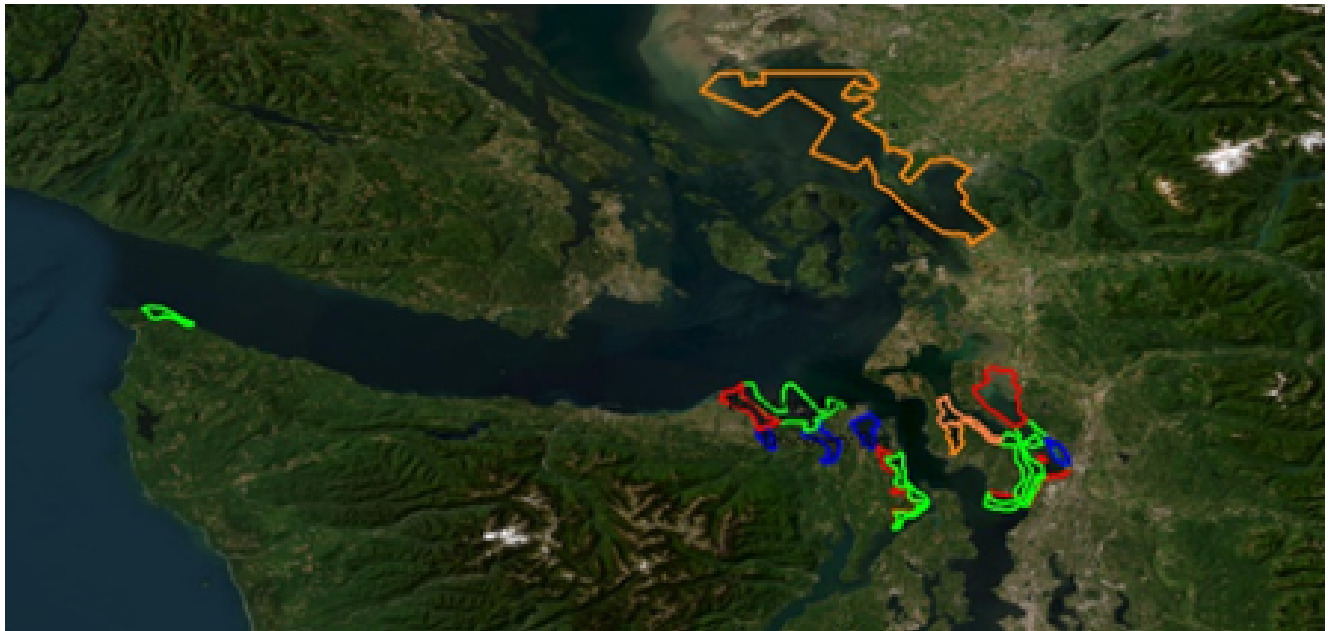
REQUEST FOR PROPOSAL
North Puget Sound & Neah Bay Community Led Derelict Gear Removal
Multiple Locations, Washington

1.0 INTRODUCTION

Innerspace Exploration Team requests that your company make a proposal for services on the North Puget Sound & Neah Bay Community Led Derelict Gear Removal Project. The following proposal request will outline the project goals and detail the format you should submit your proposal in. Please read the timeline carefully. In order for your proposal to be considered, your proposal must meet our deadlines included in the timeline under Section 2.3.

1.1 Location and Sponsor

This RFP is for operation on an FY24 NOAA Marine Debris Removal Funding Opportunity: North Puget Sound & Neah Bay Community Led Derelict Gear Removal in the survey areas shown below:



Red = Human Divers Primary
Green = ROV Diving Primary
Blue = Sidescan data already exists
Orange = secondary (Back-up Coverage Areas)

1.2 Contact Information

Proposal Submission Details:	Project Details
Kevin Baker kevinb@innerspaceexploration.org 509-906-2690	Kara Cardinal kara@innerspaceexploration.org

2.0 PROJECT

2.1 Project Description

This project seeks to locate and remove derelict fishing gear from the Puget Sound and Neah Bay areas while engaging the community in gear location, recovery, recycling and future prevention. Additionally, this project seeks to support the long-term sustainability of these efforts through training independent gear recovery through ROV operations. See Addendum 1 for the full project summary.

2.2 Contractor Requirements

Should your proposal be accepted, we expect you to contribute the following to the project:

PART 1: High Resolution Returnable Sidescan Sonar Survey

- Contractors are requested to provide high resolution sidescan imaging data coverage demonstrating excellent target discrimination, full coverage (excluding nadir) and excellent returnability for Diver & ROV recovery.
- Assigned survey areas will be expected to be fully surveyed and a data product including target point (CSV with Lat, Lon & KML/KMZ for GIS overlay) target description, target image referenced to target number, and a coverage report will be required.
- Survey frequency minimally of 580kHz and less than 980kHz is required, commercial sonar systems demonstrating full range resolution are required and point density of 3 per meter square along track is minimally required.
- Returnability to target is required to be within 3 meters.
- Survey at least one square nautical mile per day.
- Experience with utilizing sidescan sonar to resolve crab pots, shrimp pots, and gill nets.

PART 2: ROV Derelict Gear Recovery & ROV Training with STEAM Experiences

- ROV contractors are expected to be subject matter experts in the application of hand deployable ROVs within NW waters with experience in operating in the areas represented by the project. Additionally, respondents are expected to be subject matter experts in the build, use, management of ROVs on the BlueRobotics platform plus in the use of USBL positioning and imaging FLS sonars on this platform. Respondents will be providing hands-on builds, technical support, on water training, and community support for participating teams.
- ROV gear removal includes the capture of lost gear, bringing this gear to the surface, collecting biological data, ownership, status information for each pot and securing a numbered tag. Delivery of these pots to a designated unloading site and coordination with WDFW, Tribal Law Enforcement and volunteers providing recycling is required. A recovery cadence of 10 to 15 pots per day is sought.

PART 3: Diving Derelict Gear Recovery

- Diving Contractors are expected to be experts in the recovery and management of derelict fishing gear including the documentation required by WDFW and program sponsors. Diving contractors are required to be commercial divers operating in a commercial manner with experience in derelict fishing gear (crab pot, shrimp pot, gill net) recovery operations.
- Surface supplied diving with hard-wired communications and backup safety divers is required.
- Diving gear removal includes the capture of lost gear, bringing this gear to the surface, collecting biological data, ownership, status information for each pot and securing a numbered tag. Delivery of these pots to a designated unloading site and coordination with WDFW, Tribal Law Enforcement and Volunteers providing recycling is required. A recovery cadence of 20 to 25 pots per day is sought.

2.2.1 Insurance Requirements

All Respondents must minimally provide Certificates of Insurance naming Innerspace Exploration Team as additionally insured with coverages of at least \$1M per occurrence for the following:

- General Liability Insurance
- Vessel Hull P&I Insurance including pollution coverage
- Marine Employers Liability Insurance: 1M (required for diving contractors, DAN or recreational insurance is not acceptable)
- Washington State L&I, Washington State Employment Security if applicable
- All Vessels proposing ROV training, Student or ROV experiences, or non-employee passengers must show USCG Charter Licenses, valid and current drug testing program enrollment for all employees present, Captains Licenses, and USGC licensing endorsement.

2.3 Project Timeline

In order to complete our mission, we have set the following timetable. This timetable is subject to change by the managers of this project.

Milestone:	Date:
Requests for Proposals Sent Out	February 13, 2024
Letter of Intent or No-Bid Letters Sent In	February 16, 2024
Deadline for Proposals	February 19, 2024
Project Start Date	October 01, 2024
Project Completion Date	November 30, 2027

3.0 PROPOSAL SUMMARY

3.1 Expectations

Contracts will be awarded based on the information presented in the proposals received. We will award contracts based on the proposal expected to be the most beneficial to our project based on a variety of factors as described in the addendum. Innerspace Exploration Team reserves the right to award more than one contract, accept the lowest price offer, award contracts before the proposal deadline listed in the timeline, award contracts before all proposals are received, and refuse any contract without obligation to Innerspace Exploration Team or to the company offering the proposal.

3.2 Response Deadline

Please forward a letter of intent by **February 16, 2024** if you intend to submit a proposal. Likewise, if you do not intend to make a proposal, please forward a no-bid letter by the same date.

3.3 Proposal Deadline

All proposals must be submitted to Innerspace Exploration Team by **5:00pm PST, February 19, 2024** to be considered for their contribution to North Puget Sound & Neah Bay Community Led Derelict Gear Removal.

3.4 Selection Criteria

All offers submitted will be considered based upon the materials provided in the proposal. Consideration will be given to performance projections as well as cost and staff requirements. Only those proposals submitted by the deadline above will be considered. The following criteria will be the primary considerations for selecting a proposal:

- Submission of all proposals in the correct format by the stated deadline.

- The perceived effectiveness of the proposal's solution for Innerspace Exploration Team's stated mission.
- The perceived ability for the proposing company's ability to deliver their services set forth in their proposal.
- The proposing company's past performance in delivering such services.
- Availability of sufficient high quality personnel with the required skills for the specific approach proposed.
- Overall cost of the proposal.

Proposals will be scored based on the following scoring matrix:

Past Experience Relevance	35
Matching Funds to Grant Scope	35
Treaty Waters of Respondent	25
Capability - Proven	15
Capability - Stated	10
Pricing	10
Subjective (Board Impression)	35
Total Available Points	165

Innerspace Exploration Team may suspend or discontinue proposals at any time without notice or obligation to the company that submitted the proposal.

3.5 Proposal Format

Innerspace Exploration Team suggests that you include the following information in your proposal. Proposals should adequately address the details of the proposed contract.

(a) Contractor Summary & Qualifications

Include a brief history of your company including your past experience in dealing with similar projects. Also include the owners' names or those persons authorized to sign contracts for your business. Detail your company's capabilities in delivering the requests in this proposal including staff resumes.

(b) Methodology & Expected Results

Use this section to outline specifically your proposed method for achieving your goal. You may include sidescan sonar image examples of derelict gear and results of returnability on past projects, project photos of derelict gear diving and ROV operations.

(c) Equipment

Detail the equipment (sidescan sonar system, navigation, ROV, diving systems, etc.) and vessel capabilities to be utilized for this project.

(d) Price Sheet

Include day rates for each project Part response area you will be bidding on to include all personnel, equipment and expenses necessary for the project.

(e) Insurance and Licensing

Include details and/or Certificates of Insurance for required insurance referenced in 2.2.1 above as well as captain's licenses and any other relevant licensure.

(f) References

Provide three references for similar past projects.

3.5.1 Instructions for Respondents

If applying for more than one part of this response only complete the RFP responses once and include a Price Sheet for the additional response areas. Please make a note if pricing is contingent on winning multiple response parts. If applicable include matching funds offered.

Responses available as part of this RFP:

- Part 1: High Resolution Sidescan Survey and Data Set
- Part 2: ROV Derelict Gear Removal & ROV Training, Team Building & On Water Robotics Experiences
- Part 3: Diver performed Derelict Gear Removal

Addendum 1. Project Summary

The Applicant Organization is:

Innerspace Exploration Team (501(c)3 Non-Profit)

Attn: Kevin Baker

PO Box 405

Mountlake Terrace, WA 98043

(509) 906-2690 / kevinb@innerspaceexploration.org

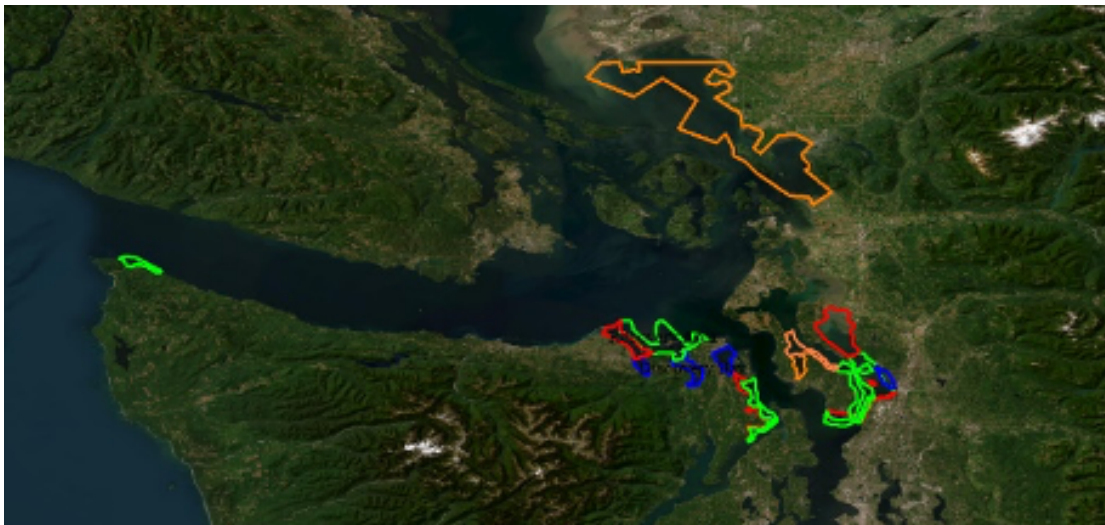
Proposal / Project Title: North Puget Sound & Neah Bay Community Led Derelict Fishing Gear Removal

Applicant Point of Contact

Kevin Baker

Same contact information as above.

Project Location: This proposal covers the active shellfish fishing grounds of the North Puget Sound and Neah Bay Sea. Specific areas include US shores of Strait of Juan de Fuca, Admiralty Inlet, Possession Sound.



Red = Human Divers Primary

Green = ROV Diving Primary

Blue = Sidescan data already exists

Orange is secondary (Back-up Coverage Areas)

Funding:

Federal Funding Ask: [REDACTED]

Non-Federal Match Anticipated: [REDACTED]

Project Description:

The purpose of the proposed North Puget Sound & Neah Bay Derelict Fishing Gear Removal effort is specifically focused on the successful removal of derelict fishing gear in 180 square miles of Tribal and Commercial/Recreational fisheries while engaging the local community in identification, removal and prevention activities. This proposal incorporates both lessons learned from previous funding cycles and addresses unique need of the NW fisheries through inclusion of new technologies. In the northwest recovery operations are currently conducted by commercial divers under permit approval during specific fisheries closures. The global move away from divers and the ban of diving in some fisheries in the northwest compounded by the move to deeper water fishing (deeper than the 105' allowed human dive depth) demands a shift in approaches to Remote Operated Vehicle (ROV) led recovery of equipment. The proposal seeks remove lost or derelict fishing equipment while supporting the development of ROV infrastructure in the NW.

This proposal seeks to develop a best practices approach for use by WDFW and Tribal law enforcement in how best to oversee, manage, regulate, and approve this type of operation.

To accomplish the broad goals of this proposal the following activities will be undertaken:

1. Professional Imaging Sonar Survey of targeted removal areas.
2. Engagement of two experienced derelict gear removal dive teams and one Tribal dive teams.
3. Engagement of two experienced derelict gear ROV teams, two Tribal ROV teams and at least two STEAM ROV teams open to both Tribal and non-Tribal youth in underserved communities in the removal of derelict fishing gear.
4. ROV Training for Tribal and Community teams in operation, maintenance, planning, on-going education and development of ROV communities.
5. Recycling and return to service of derelict fishing gear. This will be overseen by Innerspace and performed by volunteers from the communities in which the recovery takes place for the purpose of improving long-term community participation and standard practices. (See lessons learned in narrative)
6. Outcome and performance review, discussion, collaboration during and post removal efforts with Tribal and community stakeholders. Specific ongoing collaboration with Tribal shellfish managers, WFDW shellfish leadership, Tribal and WDFW law enforcement for the establishment of best practices aligned to the needs of these organizations.

180 square miles will be surveyed through the use of 580 – 900 kHz sidescan survey [4,6]. This survey will be followed by experienced fishing gear recovery divers recovering of the identified crab/ shrimp pots and nets [4,5,11]. The estimated 5,000 crab pots and 21 nets will be documented as defined in the NOAA derelict gear workshop proceedings

and Washington Derelict Gear Guidelines [4,6] for pot/net type, depth, state at recovery time, live / dead species, density, etc. The team performing survey and recovery activities for this effort are part of the team responsible for development of the best practices referenced in the before mentioned guidelines and whose vessels, divers, and this proposal's principal investigator are prominently featured. [4,5,6,11]

During diver recovery operations, ROV in situ imaging of ROV recovered pots/nets will be utilized for the collection of educational images and video content. ROV operations will be opened to the STEAM programs supported by the Marine Resource Councils and Tribal Nations in the areas funding. At both funding levels the MRCs and Treaty tribes for the working area will have access to the ROV program. This effort allows direct and hands-on opportunities for the youth and their educators in these rural communities to experience marine robotics, 3D photogrammetry and firsthand experience with the impact of derelict fishing equipment on the environment. The inclusive engagement of local youth and youth educators improves the lasting impact of the recovery efforts [9,10]

Community (Tribal and Tribal/Community) ROV teams will be provided a bounty for recovered derelict fishing equipment commensurate with the cost of recovery from the professional ROV teams. This allows for these organization to fund their ongoing operational needs and secure necessary resources for ongoing operation beyond this proposal's funding window. For communities in need of financial support to secure an ROV, a lease to own ROV will be provided at cost to the communities. It is anticipated that one full system and one partial system will need to be provided. All ROV programs will receive training and technical support.

Following recovery, crab pots will be sorted by ownership and returned to the proper owners. Tribal equipment will be returned to the appropriate Tribal group and facilitated by the Treaty Tribal representative as stated in their MOU (Innerspace secures MOU's from each treaty Tribe or their representative which formalizes collaboration and performance requirements for each Tribal nation). Serviceable pots will be returned to service by the receiving group (Puget Sound Anglers or Tribe). Non-serviceable pots will be dismantled into their base components and recycled.

Select recovered material and supporting data, video, imagery, etc. will be leveraged to create multiple educational opportunities. These include a physical educational exhibit at the Fiero Marine Science Center, and educational modules for the K-12 program through the CC MRC, JC MRC, Fiero MSC & Jamestown Tribe. Additionally, educational training incorporation of existing NOAA MDP Resources at <https://marinedebris.noaa.gov/resources>, short videos, and how-to content will be created for education through Puget Sound Anglers, broadly through support industry YouTube accounts & enthusiast publications, and target audience websites. With improved accessibility and findability of educational content the impact of this effort will last many years.

Scientific data will be made available to professional biologists and community scientist through the Tribal shellfish programs, MRC's and their member organizations, Fiero MSC and Puget Sound Anglers conservation chapter. Sonar data will be available through the above group but also expanded to local historians through the local historical society, Washington Shoreline Now and Then, and partner websites.

This effort is primarily focused on the morbidity of Dungeness Crab due to the profound impact these pots are believed to be having on the harvests in the Puget Sound and Salish Sea [1,2,6,11]. However, the impact to halibut habitat, shrimp habitat and the need for expanding catch windows for invasive green crab will be aided by this funding. Deep water pot removal will remove entanglement concerns for local whale population.

Removal Date: 10/1/2024 thru 8/1/2027. Work is expected to commence promptly upon funding (October 2024). Total removal & recycling effort duration is expected to be 36 months & conducted in the following phases.

- Sidescan Sonar Survey: 180 or 110 days commencing promptly upon funding
- Processing of data: Ongoing
- Human Dive Recovery: 261 or 155 days for removal efforts over three calendar years
- ROV Recovery: 150 or 97 days for removal efforts over three calendar years
- Return to Service and Recycling Activities: Ongoing during removal efforts and conclude within 60 days of completion of removal activities

Outcome: An estimated 3375 crab & shrimp pots and 11 nets will be identified and removed at the \$3.9 million funding level and an estimated 5505 pots and 21 nets will be identified and removed at the \$5.7 million funding level. This removal effort represents an estimated 24,481.95 cubic feet and 40,350 cubic feet of debris with an estimated weight of 72,726 lbs. and 119,863 lbs. respectively. An approximate area of 180 or 110 square miles will be cleared [14] to the extent funds allow. The removal of these crab pots will prevent an estimated killing of up to 100,423 harvestable Dungeness crab per year with the prevention of an estimated commercial loss value of up to \$1,160,758 annually and a retail loss value of \$1,657,356 annually [1,2,7,11,12]. Three community ROV teams will be supported or established and trained.

Through the 3,600 hours of volunteer efforts 5000 Anglers and family members, Tribal K-12 Students & Educators and 10,000 visitors to Fiero will be educated on the prevention of crab pot loss, proper pot rigging reducing continued fishing, and the impact of derelict fishing gear on their local community.

An estimated localized economic impact of \$28,500,00 will be felt at the \$5.8 million funding level in funding and match directly supporting the communities in which the recovery is taking place. This is in addition to the long term value of STEAM opportunities and lasting ROV programs.

Expected Contracted Days / Efforts

Sidescan Survey: Work volume shared between two vendors. Days is dependent on funding received.

Year 1: 90 days

Year 2: 60 days

Year 3: 30 days

Diving Recovery: Work volume shared between two vendors. Days is dependent on funding received.

Year 1: 75

Year 2: 90

Year 3: 105

ROV Recovery: One or two vendors. Days is dependent on funding received.

Year 1: 0

Year 2: 30

Year 3: 45

ROV Training: Single vendor provided. Preferably the ROV Recovery Vendor

Year 1: 15 water day plus phone and land technical support for 4 new ROV teams.

Year 2: 15 water day plus phone and land technical support for 4 new ROV teams.

Year 3: 15 water day plus phone and land technical support for 4 new ROV teams.

The ROV training will be on the Blue Robotics BlueROV2 Heavy configuration with USBL, FLS Multibeam and Gripper. Training will be in ROV construction, maintenance, class room use, on water operation, troubleshooting, ongoing maintenance, networking and software management.

STEAM Experiences are part of this scope but would be expected to be included in the ROV Recovery days in addition to the 15 water days per year.

Respondents should be prepared to attend and present at community meetings in which trainees are present / presenting.