

NOTICE OF PROPOSED PROCUREMENT (NPP)

Solicitation #: 30004437

This requirement is for Fisheries and Oceans Canada

Title: Technical and Analytical Support for Enumeration of Salmon Populations using Electronic Counters and Radiofrequency Identification

Objective:

The Department of Fisheries and Oceans Canada (DFO) Stock Assessment requires, field, technical, analytical and maintenance support for enumeration of salmon populations when using Electronic counters and radiofrequency identification.

Background:

Fraser and Interior Area DFO Stock Assessment uses multiple methods to enumerate hundreds of salmon populations escaping to their natal rivers to spawn annually. Depending on the requirements of the estimate, timing of fish movement, hydrology of the system and the physical channel and stream bed characteristics, electronic counters can be employed as a highly effective enumeration methodology to provide timely, cost effective and accurate estimates with acceptable error bounds. DFO has successfully enumerated various salmon populations using Electronic counter techniques, including resistivity counters, passive integrated transponder (PIT) radio-frequency identification tags and arrays, radiotelemetry tags and arrays, and sonar counters, but is often limited by knowledgeable and trained personnel to implement these methods. Access to knowledgeable and trained personnel is required to implement these methods and fulfill DFO mandates on salmon assessment.

Electronic counter methods may be considered for enumerating salmon populations under various circumstances:

Indicator Programs - Escapement assessments of populations are conducted for different purposes. When spawning populations are chosen to represent an aggregate of the same life history type for which they are one component, escapement estimates must be obtained at the highest feasible level of accuracy and precision. These programs are referred to as Indicators.

Limitations around conventional escapement methodologies due to system characteristics and/or species behavior. Certain river systems are not well suited to standard (i.e. non-electronic) visual enumeration programs as they are complex, extensive and subject to large and rapid changes in hydrology and therefore visibility. Additionally, salmon behavior may render visual methods ineffective as migrations may be extended over several months, occur during high water or freezing temperatures, the fish may behave cryptically and their countability may change dramatically depending on population size, comigrating species, and predation pressures.

Calibration of existing estimates – long time series of visual escapement estimates exist for a number of tributaries to the Fraser River. In order to investigate the statistical properties of these time series, high accuracy escapement programs may be performed coincidentally with visual surveys over a number of years. The relationship between the two estimates may be used to correct the visual time series estimates.

Electronic counter programs represent an improvement to some existing visual escapement programs. DFO has opted to continue to employ and expand the use of such specialized methods for enumerating Fraser River and other BC interior salmon populations given the successes experienced so far; however, due to the highly technical nature of the work, technical expertise and support in various areas is still

required by external specialists to ensure that maximum possible effectiveness is achieved when using these methods. Expertise outside of what is available internally may be required for:

1. the planning and design of Electronic counter projects
2. the installation and demobilization of associated Electronic counter equipment
3. the maintenance of Electronic counter equipment
4. the operation of and training of operations of Electronic counters
5. the analyses of data produced by Electronic counters

Scope of Work:

Resistivity Counters

The contractor will provide technical assistance with the installation, operation, demobilization, and calibration of specialized and sensitive electronic flat pads, resistivity counters, video recording equipment and in some cases solar power and battery bank systems into rivers where target spawning salmon populations are returning. Assistance is also required to develop study designs, analyze and classify event data, and to develop spawning escapement and error estimates for target salmon populations, and writing reports.

SONAR

The contractor will provide technical assistance with the installation, operation, and demobilization of SONAR counters including ARIS and DIDSON SONARs from Sound Metrics. This may include the installation of solar power and battery bank systems to power SONAR technology to target salmon populations. Assistance is also required to develop study designs, analyze data, and develop spawning escapement and error estimates for target salmon populations, and writing reports.

Radio Telemetry and PIT Arrays

The contractor will provide assistance with the installation, operation, and demobilization of radio telemetry and PIT arrays to capture salmon migration. This may include the installation of solar power and battery bank systems to power the arrays. Assistance is also required to develop study designs, analyze data and develop spawning escapement and error estimates for target salmon populations, and writing reports.

Ownership of Intellectual Property:

There is no intellectual property associated with this requirement

Security Requirement:

There is no security associated with this requirement.

Period of Standing Offer:

The period of the standing offer shall be from Date of offer issuance to March 31st, 2028 inclusively.

Contract Authority:

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Inquiries:

Inquiries regarding this RFP requirement must be submitted to the Contracting Authority named above. BIDDERS ARE ADVISED THAT "CANADABUYS.CANADA.CA" IS NOT RESPONSIBLE FOR THE DISTRIBUTION OF SOLICITATION DOCUMENTS. The Crown retains the right to negotiate with any supplier on any procurement. Documents may be submitted in either official language.