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RETOURNER LES SUBMISSION À :
Parks Canada Agency Bid Receiving Unit
National Contracting Services
Suite 720, 220 – 4th Avenue S.E.
Calgary, AB T2G 4X3

**REVISION 004 TO A
REQUEST FOR PROPOSAL**

**RÉVISION 004 À UNE
DEMANDE DE PROPOSITION**

The referenced document is hereby revised;
unless otherwise indicated, all other terms and
conditions of the bid remain the same.

Ce document est par la présente révisé; sauf
indication contraire, les modalités de la
sousmission demeurent les mêmes.

Issuing Office - Bureau de distribution :
Parks Canada Agency
National Contracting Services
Suite 720, 220 – 4th Avenue S.E.
Calgary, AB T2G 4X3

Title - Sujet : Restoration of the Cheewaht Lake Sockeye Tributaries – Pacific Rim National Park Reserve	
Solicitation No. - N° de l'invitation : 5P420-19-0173/A	Date : September 04, 2019
Amendment No. - N° de modification : 004	
Client Reference No. - N° de référence du client : n/a	
GETS Reference No. N° de reference de SEAG : PW-19-00883612	

Solicitation Closes - L'invitation prend fin : At - à : 14 :00 On - le : September 25, 2019	Time Zone - Fuseau horaire MDT
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F.O.B. - F.A.B. : Plant - Usine : <input type="checkbox"/> Destination : <input checked="" type="checkbox"/> Other - Autre : <input type="checkbox"/>		
Address Enquiries to - Adresser toutes demande de renseignements à : Kirsten Sage		
Telephone No. - N° de téléphone : 587-436-5795	Fax No. -N° de télécopieur : 1-866-246-6893	Email Address – Courriel : Kirsten.sage@canada.ca
Destination of Goods, Services, and Construction - Destination des biens, services et travaux de construction : See Herein		

TO BE COMPLETED BY THE BIDDER - À REMPLIR PAR LE SOUMISSIONNAIRE

Vendor/ Firm Name - Nom du fournisseur/ de l'entrepreneur :	
Address - Adresse :	
Telephone No. - N° de telephone :	Fax No. - N° de télécopieur :
Name of person authorized to sign on behalf of the Vendor/Firm Nom de la personne autorisée a signer au nom du fournisseur/ de l'entrepreneur	
Signature :	Date :

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5P420-19-0173/A

Amd. No. - N° de la modif. :
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Contracting Authority - Autorité contractante :
Kirsten Sage

Client Ref. No. - N° de réf. du client :
n/a

Title – Titre :
Restoration of the Cheewaht Lake Sockeye Tributaries – Pacific Rim National Park
Reserve

Amendment 004

This amendment is raised to:

- A. Amend Annex A – Statement of Work;
- B. Answer questions from bidders; and
- C. Provide clarification to Solicitation Amendment 02.

A. Amend Annex A – Statement of Work

- Under Annex A – Statement of Work, section 3. Scope of Work, delete sections 3.3, 3.5 and 3.7 entirely.

Bidders **MUST** submit their bids in accordance with the amended version of Annex A – Statement of Work contained herein.

INSERT:

3. Scope of Work

In order to achieve the objective(s) of the contract, the contractor must fulfil the following tasks or activities:

- 3.1 Mobilization and demobilization. Develop and implement a plan to access the restoration sites S1, S2 and S3 including mobilization and demobilization of equipment and delivery of personnel and materials. This work will need to be completed before any restoration activities take place.
- 3.2 Coordinate and collaborate with an Environmental Monitoring Contractor through the course of the Contract who will be retained by Parks Canada to ensure adherence to relevant best management practices, restoration prescriptions and environmental management and legislative requirements as well as conduct monitoring and reporting based on: Before and after (as-built) topographic surveys (level and rod surveys of longitudinal and cross-sectional profiles) on the 3 streams (total survey length = approx. 1,100 m); Annual photo point monitoring on the 3 streams, and Province of British Columbia Level 1 Fish Habitat Assessment Procedures (FHAP) on the 3 streams (total survey length = approx. 1,100 m).
- ~~3.3 Prior to in-stream restoration complete work including but not limited to the following items:~~
 - ~~3.3.1 Elevation control network. Prior to commencement of the major habitat restoration works, it will be critical to establish an elevation control network throughout each of the restoration sites. The network will consist of a series of benchmarks, each of which will have known horizontal and vertical coordinates. During restoration, the project biologist will need to use the control network and rod and level or total station survey equipment to measure the excavation depths to ensure that the prescribed excavation is achieved. Following the completion of the restoration works, the control network will be used to complete an as-built survey (see also 3.2) using total station survey equipment.~~
 - ~~3.3.2 Site Layout. A crew will layout the restoration works before any equipment is mobilized to the site. This will involve flagging off the extent of any areas that will require clearing and identifying all vegetation that is to remain. Boundaries between habitat units will be flagged and the estimated in-stream excavation depths will be identified. Access trail locations, material and fuel storage areas will also be identified during this phase.~~
 - ~~3.3.3 Fish Salvage and Site Isolation. Prior to the commencement of in-stream restoration works, all wetted areas in a specific work zone will be isolated from fish bearing waters and salvaged. In~~

~~the event that the stream is dewatered at the time of construction, no salvage will be required and barrier nets will be placed at the downstream end of each stream to prevent fish from migrating in from Cheewaht Lake. If the streams are wetted at the time of construction, fish will be removed from all work zones and released in Cheewaht Lake. Fish will be captured by a variety of methods including backpack electrofishing, minnow trapping, and pole seining. It will be critical to monitor water temperatures in the lake and in the streams and to allow fish to acclimatize to the lake water prior to release.~~

~~3.3.4 Vegetation Salvage. In order to access the sites and complete the prescribed restoration works, it will be necessary to remove vegetation from the access trails and the areas to be excavated. Vegetation will also be stripped from the areas that will receive side-cast spoil material. Excavator operators will need to be instructed to remove whole root balls where practicable, as this will increase the likelihood of plant survival following replanting. All removed vegetation will be stockpiled in shaded areas and covered with polyethylene plastic (poly) in order to prevent desiccation. Following construction, the stockpiled vegetation will be placed back on the access trail, exposed banks, and spoil areas in order to prevent erosion and to expedite site re-vegetation.~~

3.3 During implementation of in-stream restoration prescriptions for S1, S2, S3 (total length = approx. 1,100 m) complete work including but not limited to the following items:

3.3.1 Sediment and Drainage Management. A detailed environmental management plan (EMP) will be developed by the project biologist prior to the project implementation. The EMP will provide guidance for the mitigation of any negative impacts to the environment resulting from the prescribed works. Topics covered in the EMP will include fuelling of equipment, spill response, preventing introduction of invasive species, wet weather shutdown, and preventing the introduction of silt-laden water to fish-bearing watercourses. The following section provides a general description of how flows will be managed during the prescribed restoration.

3.3.2 It will be necessary to divert water from the work zones during restoration, which will be accomplished using a variety of methods. While working downstream of the divergence of Streams 1 and 2 it will be possible to utilize the opposite channel to bypass flows from the work site (see Map 2). For example, while working in Stream 1 water will be diverted into Stream 2, and vice versa. In Stream 3 and Stream 2 upstream of the divergence of Streams 1 and 2, a lined diversion channel will likely be used. A shallow ditch or channel will be created along the left or right bank and water will be diverted from the stream into the channel. The channel will be lined with poly in order to prevent sedimentation. Water will be diverted using a combination of sandbags and aqua-dams, both of which will be dismantled by hand following the completion of the restoration works.

3.3.3 Pumps will be in place at the downstream end of each channel prior to release of the diversion dams and water will be pumped from the channel into a forest depression until water is found to be running clean and clear, without a sediment load. This will prevent the introduction of silt-laden water into Cheewaht Lake. The streams will only be connected to fish-bearing water once they have flushed out the fine sediment that is generated during restoration.

3.3.4 Channel Excavation. The primary focus of the restoration works is to remove the aggraded material that has been deposited in the channels as a result of up-slope instability. Therefore, much of the restoration work will be comprised of excavating material from the channel. A series of longitudinal profiles will need to be generated using e.g. LiDAR data and prescribed cut depths will be indicated for each channel. A series of plan-view maps have been generated showing the spatial distribution of habitat units (i.e., riffle, pool, and glide) throughout each channel to provide additional information. The maps are presented in Annex B. The boundaries of the habitat units will be flagged by the project biologist prior to the start of construction. All excavated material will be side-cast and spread out (by an excavator) in selected spoil zones on the right bank of each of the channels. Low-lying areas such as the numerous breach channels that flow from the right

bank of Streams 1, 2, and 3 will be the preferred areas for spoil placement. Spoil areas will be identified by the project biologist prior to the start of construction.

3.3.5 An area of particular focus will be the divergence point between Streams 1 and 2 (see Map 3). In order to achieve an equal flow split between Streams 1 and 2 it will be critical that the riffle crest of each stream at the divergence point is the same elevation. The crests will be constructed as rock weirs by digging a trench and then using large rock set aside during channel excavation to backfill the trench up to the prescribed crest elevation. This will prevent down-cutting of the crest and will ensure that the prescribed flow split is maintained.

3.3.6 Excavation depths will vary between roughly 0.5 m and 2.0 m from the existing channel elevation, depending on the habitat unit and level of aggradation. Channel banks will be sloped at a ratio of 1.5 horizontal to 1.0 vertical, and a mid-bank terrace will be cut into the higher banks in the project (see Figure 1 for typical bank slope). Based on the prescribed cut depth and the total length of channel to be restored, it is estimated that the total cut volume will be roughly 11,000 m³.

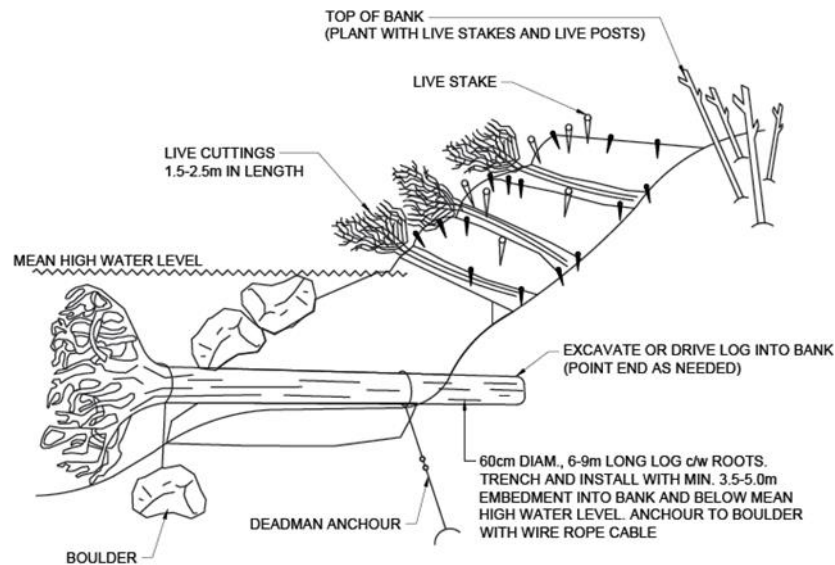


Figure 1: Typical bank cross section showing bank slope, LWD, and live stakes. Note this is a generalized drawing and no cable will be used in the prescribed works.

3.3.7 Habitat Complexing. During the vegetation salvage and site access phases, any logs or boulders encountered will be set aside for later use in the channel as large woody debris (LWD) and rock reefs. LWD will be installed into the stream bank by cutting a notch into the bank and installing a log into the notch with the root ball extending out into the wetted area of the channel. The notch is then back-filled in order to prevent the log from being washed away during high water events. LWD provides valuable salmonid rearing and cover habitat, and helps to increase the stability of the channel banks. Figure 1 provides a typical cross-sectional view of the channel following excavation and installation of LWD.

3.3.8 Grooming and Site Re-vegetation. As the excavation and habitat complexing phase is completed in each section, stockpiled vegetation will be placed back onto the disturbed areas including all spoil zones, disturbed channel banks, and access trails. If sufficient donor sites can be identified, plants such as sword fern (*Polystichum munitum*) and salmonberry (*Rubus spectabilis*) will be transplanted as whole root balls from the donor sites to the disturbed areas. Additionally, banks can be re-vegetated by transplanting live stakes of plants such as red-osier dogwood (*Cornus stolonifera*) and willow (*Salix* spp.) (Figure 1).

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- ~~3.4 Follow up Monitoring. Following the completion of the Cheewaht Fish Habitat Restoration Project the site will be monitored from 2020 to 2022 in order to assess the stability and functionality of the restored habitat. It is anticipated that future monitoring beyond the completion of the CoRe program will be completed by PRNPR and the Ditidaht First Nation Fisheries personnel.~~
- 3.4 Obtain preapproval of restoration prescriptions and experimental design from PCA through submission of a report detailing planned structures, their locations and specific methods for the monitoring protocols that will be employed, including any modifications to standard protocols.
- ~~3.5 Provide annual reports on project activities as per the deliverables.~~
- 3.5 Attend annual pre- and post-season meetings with of the Cheewaht Round Table to provide updates related to the project and discuss collaboration with other partners and stakeholders. This requirement is critical as the work under the contract will need to be closely coordinated with activities such as forestry, road deactivation, etc., that may be taking place outside the Park Reserve on the adjacent forestry lands.
- 3.6 Work with Parks Canada to implement coordination and implementation of activities, including project planning meetings prior to field season start-up and field season wrap-up meetings annually. These interactions may happen as a part of 3.9.
- 3.7 Maintain, at minimum, quarterly verbal communications with Parks Canada Project Authority and regular verbal communications on site with in-field Parks Canada staff and DFN members.
- 3.8 Carry out the work in a safe manner as per Worksafe BC Guidelines and maintain Worker's Compensation coverage.
- 3.9 Provide socio-economic benefits to the Ditidaht First Nation as applicable.

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- Under Annex A – Statement of Work, section 5. Deliverables, delete sections 5.2, 5.3 and 5.5 entirely.

Bidders **MUST** submit their bids in accordance with the amended version of Annex A – Statement of Work contained herein.

INSERT:

5. Deliverables

The contractor must deliver:

5.1 The Restoration Contractor must submit a cost estimate with a breakdown of the firm price including hourly rates. The cost estimation will be for information purposes only to provide a framework for the PCA Project Authority and must not supersede the Firm Price established in Annex B – Basis of Payment. The Restoration Contractor must submit the cost estimate within one (1) week of contract award.

5.2 A report detailing a plan to access the restoration sites S1, S2 and S3 including mobilization and demobilization of equipment and delivery of personnel and materials including any contingencies on or before March 31, 2020.

~~5.1 A report detailing the Environmental Management Plan for the restoration activities at sites S1, S2 and S3 on or before March 31, 2020~~

~~5.2 A report detailing implementation of restoration prescriptions for S1, S2 and S3 on or before March 31, 2020~~

5.3 In-stream restoration prescriptions implemented on:

- a) S1 over approximately 300 m;
- b) S2 over approximately 500 m and;
- c) S3 over approximately 300 m on or before September 15, 2021.

~~5.2 Annual reports on or before January 15th 2020, 2021 and 2022 in both hard copy and electronic copy in PDF format, detailing implementation of work completed each field season. Report must follow scientific reporting formats and include a table of contents, introduction, detailed methodology (including description of field activities and monitoring protocols), results (including raw data, compiled data summarized in tables and figures, photographs of photo points and analysis) and discussion (including logistical challenges encountered, and recommendations to improve future monitoring and in-stream restoration work.~~

B. Questions and Answers

- Q1.** Please clarify the role of the Environmental Monitoring Contractor for this project. Will the direction of construction be the responsibility of the Environmental Monitoring Contractor or the Construction Contractor? Please clarify at your earliest convenience as we would be unable to submit a total firm bid price based on the scope of work as currently written if construction is to be directed by others.
- A1.** The Environmental Monitoring (EM) Contractor will have the responsibility and authority to order the restoration Contractor to modify and/or halt any work activity if deemed necessary for the protection of the environment, observance of statutory requirements and fulfilment of the main objective(s) of the restoration project; provide on-site supervision of adherence to the EMP, restoration prescriptions, and legislation. In short the EM contractor will provide direction of construction based on the restoration plan to be provided by the PCA.
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- Q2.** Could you please confirm who will be responsible for laying out and surveying the restoration work – the Construction Contractor, the Environmental Monitoring Contractor, or others? Section 3.2 is unclear with regards to who would be responsible for surveying to ensure adherence to the restoration prescriptions.
- A2.** The EM Contractor
- Q3.** Section 3.4.1 states that an Environmental Management Plan (EMP) is to be developed by the project biologist. Is the project biologist to be provided by the contractor? I.e. is the EMP development the responsibility of the contractor or of others?
- A3.** The EM Contractor
- Q4.** Without engineering design criteria to determine flows, velocity and forces on woody debris and boulders, and following the prescriptions provided by others, who would be responsible if the habitat features installed in the system become unstable in the future?
- A4.** Hydrological data will be obtained and provided over the winter of 2019/20. If any fault with the final product can be attributed to the input data, responsibility will lie with the PCA.
- Q5.** What are the survey benchmarks for the Cheewaht Lake Fish Habitat Restoration Prescription (provided in Addendum 1) and what is the survey accuracy?
- A5.** Benchmarks and survey accuracy are under the purview of the EM Monitor. Survey accuracy is at 1 cm scale.
- Q6.** The GIS data folder provided in Addendum 1 was empty – please could you provide this again?
- A6.** This has been uploaded under **000-2977_cheewhatlake_ortho_utm10_v1.gdb.zip** and **rgb.zip**.
- Q7.** Could you please confirm who is responsible for the monitoring from 2020 to 2022? Our understanding from the site visit was that this would be done by the Environmental Monitoring Contractor or by DFN.
- A7.** The EM Contractor.
- Q8.** Will clearing and log removal around and above the channel be allowed during the pre-construction phase (before the fish window)? Or would this be considered in-stream work?
- A8.** Generally - yes, after an approval from the PCA as long as the removal follows the best management practices and mitigations that will be defined in the Impact Assessment (IA). The IA is currently being prepared by PCA and will be posted to buyandsell.gc.ca as soon as it is ready.
- Q9.** If we have sediment control at the discharge to the lake, could we walk equipment up the wet channel?
- A9.** Generally – yes, and as directed by the EM Contractor.
- Q10.** Could you provide expected numbers for habitat complexing using woody debris? For costing purposes, we will need to know how many pieces are included in the design. Is the intent to install rootwads only in the pools, or have woody debris in glides also?
-

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- A10.** Generally, large woody debris already available on site will be used for complexing. It will/may need to be repositioned during in-stream work and then placed back in the streams, as directed by the EM Contractor.
- Q11.** How was the estimated excavation volume of 11,000 m³ calculated? Are there designs or cross-sections for the prescribed stream excavation?
- A11.** The volume was estimated using prescribed cut depth, stream length and cross-section width. These drawings have been provided in section 3.3.6 of Annex A – Statement of Work.
- Q12.** Can you provide Parks Canada's and DFN's protocols as referenced in the Section 2.2.4 of the Technical Evaluation Criteria?
- A12.** Ditidaht First Nation (DFN) protocol, if available, should be obtained from the DFN directly or consult their web page <https://www.nitinaht.com/>. PCA restoration principles and guidelines are attached.
- Q13.** What permits will be obtained by Parks Canada/others, and what permits will be the responsibility of the Construction Contractor to obtain? What authorities have jurisdiction, and what permits apply?
- A13.** The Contractor is responsible for their business licensing and anything that falls outside PCA jurisdiction.
PCA will work to produce the Canadian National Parks Act permits for the Restoration and EM Contractors based on the Impact Assessment (being produced) once the contracts have been signed.
PCA will be responsible for DFO permits for in-stream work, if such are required.
The EM Contractor will be responsible for research and collection permits related to ecological data collection and wildlife (fish) handling obtained from the PCA.
If aircraft are to be used in/on PCA lands the permit will be provided by the PCA at the Contractor's request.
- Q14.** The contractor's scope of work is unclear in regards to the design work for LWD structures and restoration measures (i.e. riffle/pool design). Is the expectation that the contractor provide detailed designs for these works and construct them (design/build model) or will PCA provide a detailed design for these works? Please provide a clear description of the contractors scope vs. what will be provided by PCA.
- A14.** PCA and/or the EM Contractor hired by the PCA will provide a detailed design for these works including LWD structures and restoration measures, including cut depth and riffle/pool design. The Contractor will implement the design(s).
- Q15.** If PCA is responsible for the final design of the works, please provide detailed drawings and quantities such as volume of rip rap, number of LWD pieces needed etc.
- A15.** *In situ* material (gravel, rock, LWD) will be used as a rule for the purpose of Cheewaht restoration. The volume of material to be excavated, estimated using prescribed cut depth, stream length and cross-section width, has been provided. The drawings detailing excavation work along stream courses have been provided as hard copy. They will be made available digitally once the contract has been awarded. Advice on LWD placement will be provided on-site by the EM Contractor.
- Q16.** In case PCA is providing a design for the works, are there rip rap specifications?
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- A16.** Boulders/large rocks available *in situ* will be used to reinforce restoration structures.
- Q17.** The tender documents refer to “Project Biologist”. Will this role be provided/retained by PCA? If so, has it been decided who will be filling this role?
- A17.** This role will be provided by PCA. This role has not been selected yet.
- Q18.** Will there be any entities directing the work of the contractor, such as design work (if to be provided by the contractor) and installation in the field?
- A18.** The EM Contractor.
- Q19.** Will the environmental monitor to be hired by PCA be an independent, at-arms-length party reporting to PCA?
- A19.** Yes, the Environmental Monitoring Contractor will be an independent party contracted by PCA separately.
- Q20.** Bonding is not addressed in the tender package nor in the addendums, is bonding required for this project?
- A20.** No.
- Q21.** The scope of work, as it is currently written, is not sufficiently defined for us to submit a total firm bid price. Would it be possible to amend Annex B Basis of Payment such that we could include a list of our pricing assumptions and constraints with our pricing submission?
- A21.** The successful bidder is required to submit a detailed cost estimate with a breakdown of the firm price within one (1) week of contract award as per section 5.1 of Annex A – Statement of Work. Any assumptions must be clarified prior to bidding.

C. Provide clarification to Solicitation Amendment 02

Under Solicitation Amendment 02, delete question 14 in its entirety and replace it with the following:

INSERT

- Q14.** What about large rock/rip-rap and large woody debris? Can cable be used?
- A14.** Large rock is available on-site in the upper sections of the streams. As the last resort it may need to be brought in.

ALL OTHER TERMS & CONDITIONS REMAIN UNCHANGED