



REQUEST FOR PROPOSAL

Southern Gulf Islands Groundwater Sustainability Strategy

Request for Proposals Number: RFP-2019.006

Issue date: October 10, 2019

Closing Time: Proposal must be received by 4:00 pm Pacific Time on October 30, 2019

THE ISLANDS TRUST CONTACT PERSON: All enquiries from proponents that are related to this Request for Proposals, including any requests for information and clarification, are to be directed, **in writing only**, to the following person who will respond if time permits. Information obtained from any other source is not official and should not be relied upon. Enquiries and any responses will be recorded and may be distributed to all Proponents at the option of the Islands Trust. Proponents may e-mail enquiries until **12:00 noon on Friday, October 25, 2019 to email: wshulba@islandstrust.bc.ca**.

Proposals must not be sent by facsimile or email. They must contain ONE hardcopy and ONE copy in PDF on flash drive. Proposals must be delivered by hand, mail or courier and marked as follows:

Islands Trust
RFP-2019.006
Southern Gulf Islands Groundwater Sustainability Strategy
Suite 200 – 1627 Fort Street
Victoria, BC V8R 1H8

PROPONENT SECTION:

For hard-copy proposals, a person authorized to sign on behalf of the Proponent **must** complete and sign the Proponent Section (below), leaving the rest of this page otherwise unaltered, and include the originally-signed and completed page with the first copy of the proposal. The enclosed proposal is submitted in response to the above-referenced Request for Proposals, including any addenda. Through submission of this proposal we agree to all of the terms and conditions of the Request for Proposals and agree that any inconsistent provisions in our proposal will be as if not written and do not exist. We have carefully read and examined the Request for Proposals, including the Administrative Section, and have conducted such other investigations as were prudent and reasonable in preparing the proposal. We agree to be bound by statements and representations made in our proposal.

Signature of Authorized Representative:	Legal Name of Proponent (and Doing Business As Name, if applicable):
Printed Name of Authorized Representative:	Address of Proponent:
Title:	
Date:	Authorized Representative phone, fax or email address (if available):

1. DEFINITIONS AND ADMINISTRATIVE REQUIREMENTS

1. Definitions

Throughout this Request for Proposals, the following definitions apply:

- a) "Contract" means the written agreement resulting from this Request for Proposals executed by the Islands Trust and the Contractor;
- b) "Contractor" means the successful Proponent to this Request for Proposals who enters into a written Contract with the Islands Trust;
- c) "must", or "mandatory" means a requirement that must be met in order for a proposal to receive consideration;
- d) "Proponent" means an individual or a company that submits, or intends to submit, a proposal in response to this Request for Proposals;
- e) "Request for Proposals" or "RFP" means the process described in this document;
- f) "should" or "desirable" means a requirement having a significant degree of importance to the objectives of the Request for Proposals; and
- g) "Islands Trust" means corporate bodies created under the Islands Trust Act

2. Terms and Conditions

The following terms and conditions will apply to this Request for Proposals. Submission of a proposal in response to this Request for Proposals indicates acceptance of all the terms that follow and that are included in any addenda issued by the Islands Trust. Provisions in proposals that contradict any of the terms of this Request for Proposals will be as if not written and do not exist.

3. Late Proposals

- a) Proposals will be marked with their receipt time at the closing location. Only complete proposals received and marked before closing time will be considered to have been received on time.
- b) Hard-copies of late proposals will not be accepted and will be returned to the Proponent. Electronic proposals that are received late will be marked late and will not be considered or evaluated.
- c) In the event of a dispute, the proposal receipt time as recorded at the closing location shall prevail whether accurate or not.

4. Eligibility

- a) Proposals will not be evaluated if the Proponent's current or past corporate or other interests may, in the Islands Trust opinion, give rise to a conflict of interest in connection with the project described in this Request for Proposals. This includes, but is not limited to, involvement by a Proponent in the preparation of this Request for Proposals. If a Proponent is in doubt as to whether there might be a conflict of interest, the Proponent should consult the Islands Trust prior to submitting a proposal.
- b) Proposals from not-for-profit agencies will be evaluated against the same criteria as those received from any other Proponents.

5. Evaluation

Evaluation of proposals will be by a committee formed by the Islands Trust and may include Islands Trust employees and contractors and employees of the BC Public Service including but not limited to staff from Ministry of Environment and Ministry of Forests, Lands, Natural Resource Operations, and Rural Development. All personnel will be bound by the same standards of confidentiality. The Islands Trust's intent is to enter into a Contract with the Proponent who has the highest overall ranking.

6. Negotiation Delay

If a written Contract cannot be negotiated within thirty days of notification of the successful Proponent the Islands Trust may, at its sole discretion at any time thereafter, terminate negotiations with that Proponent and either negotiate a Contract with the next qualified Proponent or choose to terminate the Request for Proposals process and not enter into a Contract with any of the Proponents.

7. Debriefing

At the conclusion of the Request for Proposals process, all Proponents will be notified. Unsuccessful Proponents may request a debriefing meeting with the Islands Trust.

8. Alternative Solutions

If alternative solutions are offered, please submit the information in the same format, as a separate proposal.

9. Changes to Proposals

By submission of a clear and detailed written notice, the Proponent may amend or withdraw its proposal prior to the closing date and time. Upon closing time, all proposals become irrevocable. The Proponent will not change the wording of its proposal after closing and no words or comments will be added to the proposal unless requested by the Islands Trust for purposes of clarification.

10. Proponents' Expenses

Proponents are solely responsible for their own expenses in preparing a proposal and for subsequent negotiations with the Islands Trust, if any. If the Islands Trust elects to reject all proposals, the Islands Trust will not be liable to any Proponent for any claims, whether for costs or damages incurred by the Proponent in preparing the proposal, loss of anticipated profit in connection with any final Contract, or any other matter whatsoever.

11. Limitation of Damages

Further to the preceding paragraph, the Proponent, by submitting a proposal, agrees that it will not claim damages, for whatever reason, relating to the Contract or in respect of the competitive process, in excess of an amount equivalent to the reasonable costs incurred by the Proponent in preparing its proposal and the Proponent, by submitting a proposal, waives any claim for loss of profits if no Contract is made with the Proponent.

12. Proposal Validity

Proposals will be open for acceptance for at least 90 days after the closing date.

13. Firm Pricing

Prices will be firm-fixed for the entire Contract period unless this Request for Proposals specifically states otherwise.

14. Currency and Taxes

Prices quoted are to be:

- a) in Canadian dollars;
- b) inclusive of duty, where applicable; FOB destination, delivery charges included where applicable; and
- c) exclusive of GST and PST

15. Completeness of Proposal

By submission of a proposal the Proponent warrants that, if this Request for Proposals is to design, create or provide a system or manage a program, all components required to run the system or manage the program have been identified in the proposal or will be provided by the Contractor at no charge.

16. Sub-Contracting

Using a sub-contractor (who should be clearly identified in the proposal) is acceptable. This includes a joint submission by two Proponents having no formal corporate links. However, in this case, one of these Proponents must be prepared to take overall responsibility for successful performance of the Contract and this should be clearly defined in the proposal.

Sub-contracting to any firm or individual whose current or past corporate or other interests may, in the Islands Trust's opinion, give rise to a conflict of interest in connection with the project or program described in this Request for Proposals will not be permitted. This includes, but is not limited to, any firm or individual involved in the preparation of this Request for Proposals. If a Proponent is in doubt as to whether a proposed subcontractor gives rise to a conflict of interest, the Proponent should consult with the Islands Trust prior to submitting a proposal.

Where applicable, the names of approved sub-contractors listed in the proposal will be included in the Contract. No additional subcontractors will be added, nor other changes made, to this list in the Contract without the written consent of the Islands Trust.

17. Acceptance of Proposals

This Request for Proposals should not be construed as an agreement to purchase goods or services. The Islands Trust is not bound to enter into a Contract with the Proponent who submits the lowest priced proposal or with any Proponent. Proposals will be assessed in light of the evaluation criteria. The Islands Trust will be under no obligation to receive further information, whether written or oral, from any Proponent.

Neither acceptance of a proposal nor execution of a Contract will constitute approval of any activity or development contemplated in any proposal that requires any approval, permit or license pursuant to any federal, provincial, regional district or municipal statute, regulation or by-law.

18. Definition of Contract

Notice in writing to a Proponent that it has been identified as the successful Proponent and the subsequent full execution of a written Contract will constitute a Contract for the goods or services, and no Proponent will acquire any legal or equitable rights or privileges relative to the goods or services until the occurrence of both such events.

19. Contract

By submission of a proposal, the Proponent agrees that should its proposal be successful the Proponent will enter into a Contract with the Islands Trust.

20. Liability for Errors

While the Islands Trust has used considerable efforts to ensure information in this Request for Proposals is accurate, the information contained in this Request for Proposals is supplied solely as a guideline for Proponents. The information is not guaranteed or warranted to be accurate by the Islands Trust, nor is it necessarily comprehensive or exhaustive. Nothing in this Request for Proposals is intended to relieve Proponents from forming their own opinions and conclusions with respect to the matters addressed in this Request for Proposals.

21. Additional Information

All addenda/amendments will be posted on the Islands Trust website and on BC Bid. It is the sole responsibility of the Proponent to check for addenda/amendments on our website or BC Bid. Proponents are strongly encouraged to subscribe to BC Bid's email notification service to receive notices of addenda/amendments.

22. Modification of Terms

The Islands Trust reserves the right to modify the terms of this Request for Proposals at any time in its sole discretion. This includes the right to cancel this Request for Proposals at any time prior to entering into a Contract with the successful Proponent.

23. Ownership of Proposals

All proposals submitted to the Islands Trust become the property of the Islands Trust. They will be received and held in confidence by the Islands Trust, subject to the provisions of the *Freedom of Information and Protection of Privacy Act* and this Request for Proposals.

24. Use of Request for Proposals

Any portion of this document, or any information supplied by the Islands Trust in relation to this Request for Proposals may not be used or disclosed, for any purpose other than for the submission of proposals. Without limiting the generality of the foregoing, by submission of a proposal the Proponent agrees to hold in confidence all information supplied by the Islands Trust in relation to this Request for Proposals.

25. Reciprocity

The Islands Trust may consider and evaluate any proposals from other jurisdictions on the same basis that the Islands Trust purchasing authorities in those jurisdictions would treat a similar proposal from a British Columbia supplier.

26. No Lobbying

Proponents must not attempt to communicate directly or indirectly with any employee, contractor or representative of the Islands Trust, including the evaluation committee and any elected officials of the Islands Trust, or with members of the public or the media, about the project described in this Request for Proposals or otherwise in respect of the Request for Proposals, other than as expressly directed or permitted by the Islands Trust.

27. Collection and Use of Personal Information

Proponents are solely responsible for familiarizing themselves, and ensuring that they comply, with the laws applicable to the collection and dissemination of information, including resumes and other personal information concerning employees and employees of any subcontractors. If this RFP requires Proponents to provide the Islands Trust with personal information of employees who have been included as resources in response to this RFP, Proponents will ensure that they have obtained written consent from each of those employees before forwarding such personal information to the Islands Trust. Such written consents are to specify that the personal information may be forwarded to the Islands Trust for the purposes of responding to this RFP and use by the Islands Trust for the purposes set out in the RFP. The Islands Trust may, at any time, request the original consents or copies of the original consents from Proponents, and upon such request being made, Proponents will immediately supply such originals or copies to the Islands Trust.

28. Confidentiality of Information

This RFP is the property of the Islands Trust and is not to be copied or distributed without prior approval of The Island Trust. Any information acquired about the Islands Trust by a proponent during this process must not be disclosed unless authorized by the Island Trust, and this obligation will survive the termination of this RFP process. The awarding of any contract or reaching of any agreement will not permit any proponent to advertise a relationship with The Island Trust without The Island Trusts' prior authorization.

2. ORGANIZATION OVERVIEW

The Islands Trust

The Islands Trust Area covers the islands and waters between the British Columbia mainland and southern Vancouver Island, including Howe Sound and as far north as Comox. This is a unique and special place composed of 13 major islands and more than 450 smaller islands covering approximately 5200 square kilometres of land and water - an area almost the size of Prince Edward Island. About 26,000 people live on these islands and another 10,000 people are non-resident property-owners.

The *Islands Trust Act* established the Islands Trust in 1974 and sets out its mandate:

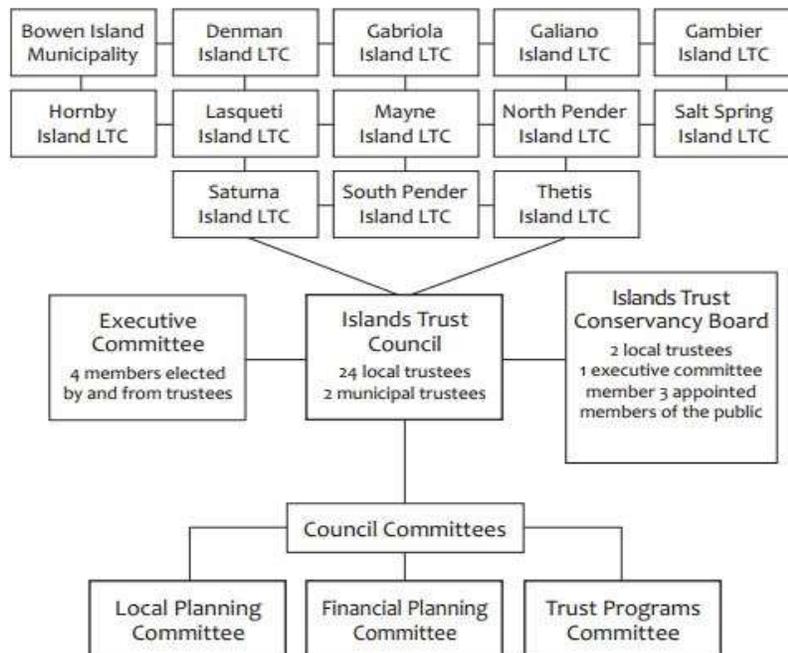
"To preserve and protect the trust area and its unique amenities and environment for the benefit of the residents of the trust area and of British Columbia generally, in cooperation with municipalities, regional districts, improvement districts, other persons and organizations and the government of British Columbia."

The Islands Trust is a federation of thirteen local government bodies. Within the Islands Trust federation, there are an additional 3 corporate bodies, an executive committee and several sub-committees.

Within the broader Islands Trust Area there are 26 elected trustees serving on 13 local trust committees and one island municipality, all of whom serve on Trust Council, which meets quarterly to address regional issues. Each Local Trust Committee is an incorporated, special purpose authority with statutory responsibility for planning and regulating land use within its local trust area. All other municipal services (e.g. water, sewer, garbage, roads) are provided by Regional Districts.

The Islands Trust website is located at: <http://www.islandstrust.bc.ca/>

Islands Trust Legislative Structure Local Trust Committees and Island Municipalities



3. BACKGROUND

Groundwater is a unique amenity in the Islands Trust Area; supporting ecosystem health and overall hydrological function of watersheds. With vulnerabilities of seasonal precipitation changes, evapotranspiration forcing, recharge alterations, and saltwater intrusion; groundwater resources are a metric of climate change.

The Islands Trust mandate is to preserve and protect the Trust Area and its unique amenities and environment for the benefit of the residents of the Trust Area and of British Columbia generally. Islands Trust is responsible to both the present and future residents of the Trust Area and the Province of British Columbia. Their needs can only be met and sustained within the limitations of the natural environment and the island communities of the Trust Area. A balance must be established between the needs of all stakeholders. Therefore our guiding principle is that Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, address measures that ensure; neither the density nor intensity of land use is increased in areas which are known to have a problem with the quality or quantity of the supply of freshwater; water quality is maintained, and existing, anticipated and seasonal demands for water are considered and allowed for. To uphold these commitments, understanding of past, current, and future use of groundwater must be balanced by investigation of groundwater recharge potential, water use, climate change, and impacts of land-use development. This project actions those commitments.

The Southern Gulf Island Local Trust Committees have identified groundwater resources as a priority in their Official Community Plans and as part of their approval of land-use applications over the past decades. In March 2019 the Islands Trust Council declared a climate emergency in the Islands Trust Area, directing staff to include a central focus on equitable climate change mitigation, adaptation, and resilience into strategic planning.

Actions with respect to an ecosystem vulnerability approach to groundwater sustainability strategy have been recommended by previous researchers, and the Province of BC supports deep collaboration in groundwater focused projects at the local government level and are an external partner in this project.

Dr. Allen of Simon Fraser University warns “...in coastal regions, changes in recharge can be anticipated to result in not only impacts in water levels, but to water quality as well. Coastal aquifers are highly sensitive to hydrologic stress because of the complex chemical and physical interactions between freshwater and ocean water. The impacts associated with global climate change are expected to cause global sea level rise, which will undoubtedly slowly affect the position of the saltwater-freshwater interface in many coastal aquifers. The higher incidence of extreme events is another very important factor. Heavy rain events generally result in less groundwater recharge, because the ground is not able to absorb the precipitation fast enough. This will lead to greater runoff, more flooding, etc, which can be difficult to quantify accurately in hydrologic models. Similarly, extended periods of drought lead to dry soil conditions, which in some cases can result in less groundwater infiltration. So even through BC, as a whole, is expected to become wetter, some of this additional precipitation may fall as heavy rainfall and, consequently, the amount of recharge could decrease. “

Groundwater recharge potential has been addressed by the Provincial Government in *Water Allocation Plans* and Water Science Series publications, specifically [2018-04: Mapping Aquifer Stress, Groundwater Recharge, Groundwater Use, and the Contribution of Groundwater to Environmental Flows for Unconfined Aquifers across British Columbia.](#)

In December 2016, Simon Fraser University presented [Groundwater Recharge Model for Gabriola Island](#) to the Regional District of Nanaimo using a fully integrated land surface – subsurface numerical model developed using MIKE SHE modelling software.

In May 2019 a new approach to groundwater potential assessment was implemented for Salt Spring Island using a Geographical Information Science approach. The primary objectives of this study were to inventory geo-spatial data and groundwater related information, identify aquifer recharge potential; and document the methodology, identify data gaps, and provide recommendations for future initiatives. This approach to recharge potential assessment is anticipated

to be effective to implement over large areas, such as the Islands Trust Area in comparison to hydrogeological modelling approaches. Further, this approach may be able to qualitatively and quantitatively address difficult to measure impacts on hydrology from a changing climate and land-use development.

Groundwater resource potential has been addressed by the Provincial Government in *Water Allocation Plans* and Water Science Series publications, specifically [2018-04: Mapping Aquifer Stress, Groundwater Recharge, Groundwater Use, and the Contribution of Groundwater to Environmental Flows for Unconfined Aquifers across British Columbia](#).

In the 1990s there was a strengthening of water allocation process in the Islands Trust Area by the Regional Water Management Vancouver Island Region of Ministry of Environment, Lands, and Parks for [Outer Gulf Islands \(2000\)](#); [Denman and Hornby Islands \(1994\)](#); [Saltspring Island \(1993\)](#); and [Lasqueti Island \(1992\)](#). The Province released [Water Use Plan Guidelines \(1998\)](#) that was mostly a document concerning micro-hydroelectric operations.

Recently, the [partnership for water sustainability in BC](#) released a [Water Balance Approach on Vancouver Island](#) and a [Gabriola water balance model](#) was developed for the Regional District of Nanaimo.

In summer of 2019, five Local Trust Committees passed resolutions endorsing the *Southern Gulf Islands Groundwater Sustainability Strategy* project charter and this was further endorsed by the Executive Committee of Trust Council.

4. SUMMARY OF REQUIREMENT

The purpose of the *Southern Gulf Islands Groundwater Sustainability Strategy Project* is to identify evidence-based products and collate data for future policy and planning initiatives for adaptation measures to protect aquifers and preserve groundwater dependent communities and ecosystems in a changing climate.

The study area is located in the Southern Gulf Islands of the Islands Trust Area; including Galiano, Mayne, North Pender, Saturna, and South Pender Local Trust Areas (LTA). Each LTA have a major island and associated islands in their area. All associated islands are subject to the project with the exception of the North Pender associated islands; including but not limited to James Island, Sidney Island, and Morseby Island).

For more information on Local Trust Areas, please visit: <http://www.islandstrust.bc.ca/islands/local-trust-areas/>

The project is organized into multiple phases including but not limited to:

- *Phase 1: Southern Gulf Islands Groundwater Recharge Assessment*
- *Phase 2: Southern Gulf Islands Groundwater Availability Assessment*

All phases are individual projects but may be undertaken by a single proponent or multiple proponents.

Phase 1: Southern Gulf Islands Groundwater Recharge Assessment is to determine aquifer recharge potential for groundwater management. Protection of aquifer recharge areas is identified in the Islands Trust Policy Statement and this project advances that commitment. Identification of groundwater recharge potential is essential for determining management strategies, conservation initiatives, and informs future research and regulation of groundwater in the Southern Gulf Islands.

Phase 2: Southern Gulf Islands Groundwater Availability Assessment is to determine aquifer water balance utilizing recharge potential from Phase 1 and water-use analysis for groundwater management. Identification of groundwater recharge potential is essential for determining aquifer water balance and determining resource potential to develop strategies for conservation in areas of over allocation. This phase will inform future groundwater resource research and regulation in the Southern Gulf Islands.

These assessments rely heavily on existing spatial data managed by Islands Trust Information Services and a significant amount of coordination effort will be required of the successful proponent to ensure a data stewardship strategy for this assessment and subsequent phases of the Southern Gulf Islands Groundwater Sustainability Strategy project.

These assessments will inventory spatial data, groundwater related information, and hydrometric data to identify groundwater recharge and availability as per the deliverables section. This assessment is expected to utilize Geographic Information System software and associated scripts. It is not the intention of this assessment to model the hydrogeological dynamics of the Southern Gulf Islands.

The project requires technical documentation of methodology, data gaps analysis, recommendations for future initiatives, and conclusions. In addition, all associated maps listed in the deliverables section will be submitted as a full-resolution Portable Document File (PDF) and a Geo Tagged Image File Format (GeoTIFF) to be utilized with Islands Trust mapping services such as MAPIT and TAPIS.

In addition, all data will be made available on DATA BC Catalogue. Coordination of Water Science Series report between the Province, Islands Trust, and the proponent(s) would be desirable. Future updates may be required, therefore recommendations of potential strategies is desired of the successful proponent(s).

The successful proponent(s) will assume professional reliance of the resulting product. Thus it is expected that at least one senior member of the proponent(s) team is a registered Professional Engineer or Professional Geoscientist with proficiency in hydrogeology and should implicitly express the professional limitation of the implementation of the data, maps, results, recommendations, and conclusions by Islands Trust, the Province of British Columbia, or any other organization as these deliverables will be in the public domain.

5. SCOPE AND OBJECTIVES

Phase 1: Southern Gulf Islands Groundwater Recharge Assessment

5.1 Phase 1 Scope of Work

The objectives of the recharge assessment is to:

- a) Meet with project team and harmonize methodological approach;
- b) Inventory geo-spatial data and groundwater related information;
- c) Determine and document recharge potential methodology;
- d) Identify aquifer recharge potential assessment for the Southern Gulf Islands;
- e) Create and provide all associated data and mapping deliverables;
- f) Identify data gaps; and
- g) Provide recommendations for future initiatives.

5.2 Phase 1 Deliverables

The following deliverables provide a framework for determining Proponents scope of work and understanding of limitations and timelines.

Meetings

Work to be completed by March 13, 2020. Provide timeline for deliverables below.

Deliverable A: Geo-spatial Inventory

Provide a classified geo-spatial data inventory of the Southern Gulf Islands to Islands Trust in a format that can be included in TAPIS and MAPIT mapping services including but not limited to;

- i. Topography
- ii. Slope
- iii. Soils
- iv. Surficial Geology
- v. Land Cover
- vi. Bedrock Geology
- vii. Topographic Wetness Index
- viii. Precipitation Distribution
- ix. Surplus
- x. Potential evapotranspiration
- xi. Actual evapotranspiration
- xii. Deficit Water
- xiii. Surplus Water

Deliverable B: Estimation of Infiltration Factors

- i. Land cover infiltration factor
- ii. Soil infiltration factor
- iii. Slope infiltration factor
- iv. Bedrock contact and lineament infiltration factor
- v. Water surplus factor

Deliverable C: Estimation of Recharge Potential

- i. Provide estimation equation
- ii. Estimate aquifer recharge flux
- iii. Determine aquifer recharge potential
- iv. Classify aquifer recharge potential
- v. Determine recharge flux on a monthly basis

Deliverable D: Data Gap Analysis

- i. Provide data integrity and quality statement
- ii. Provide recommendations to improve aquifer recharge potential analysis

Deliverable E: References and Resources

- i. Provide all supporting references and resources in either attached documents or permanent internet hyperlinks

Deliverable F: Study Limitations and Statement of Opinion

- i. Provide limitations and liabilities concerning the data, siting, and receiving environment
- ii. Provide a statement of opinion on the usefulness of recharge potential for determining water balance.

Phase 2: Southern Gulf Islands Groundwater Availability Assessment

5.3 Phase 2 Scope of Work

The objectives of the availability assessment is to:

- a) Meet with project team and harmonize methodological approach;
- b) Inventory geo-spatial data and groundwater related information;
- c) Determine and document groundwater availability methodology;
- d) Identify groundwater balance and resource potential for the Southern Gulf Islands;
- e) Create and provide all associated data and mapping deliverables;
- f) Identify data gaps; and
- g) Provide recommendations for future initiatives.

5.4 Phase 2 Deliverables

The following deliverables provide a framework for determining Proponents scope of work and understanding of limitations and timelines.

Work to be completed by March 13, 2020. Provide timeline for deliverables below.

Deliverable A: Conceptual Model

Provide a classified geo-spatial data inventory of the Southern Gulf Islands to Islands Trust in a format that can be included in TAPIS and MAPIT mapping services including but not limited to;

- i. Geological Setting
- ii. Hydrogeological Units and Properties
- iii. Groundwater Regions and Aquifers
- iv. Well Yields and Aquifer Productivity
- v. Groundwater Levels and Flow
- vi. Depth of Freshwater Lens
- vii. Seasonal Groundwater Level Variation
- viii. Seasonal Change in Volume of Stored Groundwater

Deliverable B: Estimation of Resource Potential

- i. Provide estimation equation
- ii. Estimate aquifer discharge flux
- iii. Determine aquifer resource potential
- iv. Classify aquifer resource potential
- v. Determine resource flux on a monthly basis
- vi. Classify groundwater region water stress with respect to zoning and climate analysis

Deliverable C: Data Gap Analysis

- i. Provide data integrity and quality statement
- ii. Provide recommendations to improve aquifer resource potential analysis

Deliverable D: References and Resources

- i. Provide all supporting references and resources in either attached documents or permanent internet hyperlinks

Deliverable E: Study Limitations and Statement of Opinion

- i. Provide limitations and liabilities concerning the data, siting, and receiving environment
- ii. Provide a statement of opinion on the usefulness of recharge potential for determining water balance.

6. QUALIFICATIONS AND EXPERIENCE

Qualifications and requirements include:

- a) Knowledge of and experience in assessing the hydrogeology of coastal regions in BC (e.g. experience in assessment of recharge potential mapping, saltwater intrusions analysis, water budget assessments)
- b) Experience in regional hydrogeologic studies in B.C.
- c) Experience in evaluation of large hydrogeologic datasets (e.g. mapping and GIS analysis).
- d) Experience with assessments of the impact of climate change on hydrogeologic systems in B.C.

It is preferred that all named individuals providing hydrogeologic interpretation be qualified and registered under Engineers & Geoscientists BC as P.Geol or P.Eng with competence in hydrogeologic interpretation. If named individuals are not registered P.Geol or P.Eng, provide evidence to demonstrate that individuals have adequate experience & educational background to perform assigned tasks & that these individuals will be supervised by a qualified and registered professional (P.Geol or P.Eng registered in BC).

7. SERVICE CONTRACT

Please be aware that Phase I and Phase II will be evaluated separately and may not necessarily be awarded to the same proponent. Please ensure pricing documents clearly indicate a price for Phase I and Phase II separately. The successful proponent will be required to sign a service contract with Islands Trust. Please see Appendix A for a copy of our service contract template.

8. PROPOSED TIMELINE FOR RFP PROCESS:

<u>Activity</u>	<u>Estimated Completion Dates</u>
Issue RFP	October 10, 2019
RFP Closing	October 30, 2019
Evaluation Period	October 31–November 8, 2019
Award of Contract to Successful proponent	November 15, 2019

9. RFP RESPONSE OUTLINE

Proposals should be clearly written, providing a straightforward, concise description of the proponent's ability to meet the requirements of the RFP.

The following format, sequence, and instructions should be followed in order to provide consistency in proponent response and ensure each proposal receives full consideration. All pages should be consecutively numbered.

- a. An unaltered and completed Request for Proposals cover page which is page one of this RFP document. The Proponent section must be completed and signed by an authorized signatory.
- b. Table of contents including page numbers.
- c. A one page summary detailing your qualifications, experience and skills as outlined in Section 6.
- d. A resume for each individual that will be assigned to this project and detailing their qualifications, experience and skills as outlined in Section 6.
- e. A summary describing the proponent's interpretation of the objectives of the data inventory and groundwater recharge potential assessment of the Southern Gulf Islands.
- f. A summary describing the proponent's interpretation of the objectives of the data inventory and groundwater availability assessment of the Southern Gulf Islands.
- g. Methodology, work plan and timeline for each Phase.
- h. Outline three examples of previous work that demonstrates the required experience and skills as outlined in Section 4. Please note the relevance of each example and if the associated work plan was implemented on schedule and according to the budget, and if not, describe the reasons.
- i. A one page summary on the roles and differences of a geographical information systems approach versus a hydrogeological modeling approach on determining groundwater recharge with respect to spatial resolution, assessment dependability, methodology repeatability, and data confidence. The objective is to ensure understanding of the role that existing data and methodologies will play in implementing and updating groundwater recharge assessment in water budgets and build out analysis.
- j. A one page summary on the roles and differences of a geographical information systems approach versus a hydrogeological modeling approach on determining groundwater resource availability with respect to spatial resolution, assessment dependability, methodology repeatability, and data confidence. The objective is to ensure understanding of the role that existing data and methodologies will play in implementing and updating groundwater availability assessment in future water budgets and build out analysis.
- k. The proponent must provide at least 3 references for work done in the last 5 years that are similar in size and complexity. These references may be contacted by Islands Trust and information should include contact name, position, name of the organization, email and telephone number.
- l. The RFP response must clearly indicate separate pricing for Phase 1 and Phase 2 of this project. The details comprising an all-inclusive firm-fixed price (excluding GST and PST) for undertaking the deliverables described in this request for proposal. Pricing should include all associated travel cost, etc.

10. EVALUATION

10.1 *Mandatory Deliverables*

This section details all of the mandatory and desirable criteria against which proposals will be evaluated. Proponents should make sure that they fully respond to all criteria in order to receive full consideration during evaluation.

Proposals not clearly demonstrating that they meet the following mandatory criteria will be excluded from further consideration during the evaluation process:

- a) The proposal must be received at the closing location before the specified closing date and time;
- b) One unaltered, completed Request for Proposal cover page including an originally-signed Proponent Section. The person signing the form must be an authorized signatory for the company. This document is page one of this proposal package;

- c) The proposal must be in English and must not be sent by facsimile or e-mail; and
- d) One hard copy of the proposal and one electronic PDF copy on flash drive .

10.2 Evaluation Criteria

Proponents who have satisfied all the Mandatory Criteria will be evaluated against the Evaluation Criteria detailed below. Proposal will be reviewed for completeness, suitability and match to requirements.

Proposals will be evaluated and ranked based on the information provided within the proposal.

Criterion	Points
1. Understanding of the scope of the work, the deliverables of geo-spatial data inventory, groundwater recharge potential methodology; and the required timeline.	30
2. Understanding of the scope of the work, the deliverables of geo-spatial data inventory, groundwater availability methodology; and the required timeline.	30
3. Previous experience in government groundwater-focused initiatives or projects.	20
4. References – relevant examples of recent work performing services of similar size and complexity.	10
5. Proposed Fees/Cost	10
TOTAL	100

Service Contract (General)



THE ISLANDS TRUST COUNCIL

(the “Trust Council”) at the following address:
 Suite 200 – 1627 Fort Street
 Victoria, BC V8R 1H8
 Ph: (250) 405-5151
 Fax: (250) 405-5155

Contract No: XXXXXXXXXX
Contract No MUST appear on all invoices

Project: XXXXXXXXXXXXXXXXXXXX

Contractor: XXXXXXXXXXXXXXXXXXXX

(the “Contractor”) at the following address:
 Ph:
 Email:

Contract Initiator: XXXXXXXXXXXXXXXXXXXX

Procurement Process Number (if applicable):

Account Coding: XXXXXXXXXXXXXXXXXXXX

GIVEN THAT THE TRUST COUNCIL WISHES TO ENGAGE THE CONTRACTOR TO PROVIDE CERTAIN SERVICES TO THE TRUST COUNCIL AND THE CONTRACTOR WISHES TO CONTRACT WITH THE TRUST COUNCIL TO PROVIDE SUCH SERVICES TO THE TRUST COUNCIL, THIS AGREEMENT IS EVIDENCE THAT, IN CONSIDERATION OF THE PROMISES AND PAYMENTS HEREIN SET OUT, AND OTHER GOOD AND VALUABLE CONSIDERATION (THE RECEIPT AND SUFFICIENCY OF WHICH EACH PARTY ACKNOWLEDGES), THE TRUST COUNCIL AND THE CONTRACTOR AGREE AS FOLLOWS:

PART A – SERVICES

(a) The Contractor will complete the following deliverables (the “Services”):

(b) **Term of Agreement** (the “Term”): **From:** XXXXXXXXXXXX **To:** XXXXXXXXXXXXXXXXXXXX

PART B – CONTRACT PRICE

(a) **Contract Price:** \$XXXXXXXXXXXXXXXX(not including GST)

(b) **Fees:** N/A

(c) **Rate:** \$XXXXXX per day/hr

(d) Expenses: Included in Contract Price

(e) Billing Date(s): Monthly

The Contractor shall submit its invoices by email to IslandsTrustAccountsPayable@islandstrust.bc.ca.

The Contractor shall NOT cc any employees on invoice submissions.

PART C – TERMS AND CONDITIONS

The Contractor shall provide the Services in accordance with all terms and conditions set out in Schedule “A”.

PART D – INSURANCE

1. The Contractor shall, without limiting its obligations or liabilities herein and at its own expense, obtain and maintain during the Term the following insurance:
 - (a) comprehensive general liability insurance for death, bodily injury, property loss and damage, and all other losses arising out of or in connection with the provision of the Services in an amount of not less than \$2,000,000.00 per occurrence, or in such greater amount as may be required by the Trust Council from time to time, acting reasonably; and
 - (b) automobile liability insurance in an amount not less than \$2,000,000.00 providing third party liability and accident benefits insurance and automobile benefits insurance and automobile physical damage insurance including collision and comprehensive coverage, covering all automobiles and vehicles owned, rented or leased by the Contractor, that are required by law to be licensed.
 2. The Contractor shall cause all policies of insurance required to be taken out by it under this Agreement to be with insurance companies satisfactory to the Trust Council and to:
 - (a) name the “Islands Trust Council” as additional insured;
 - (b) include that the Trust Council is protected notwithstanding any act, neglect, or misrepresentation by the Contractor which might otherwise result in the avoidance of a claim and that such policies are not affected or invalidated by any act, omission, or negligence of any third party which is not within the knowledge or control of the insureds;
 - (c) be issued by an insurance company entitled to carry on the business of insurance under the laws of British Columbia;
 - (d) be primary and non-contributing with respect to any policies carried by the Trust Council and shall provide that any coverage carried by the Trust Council is in excess coverage;
 - (e) not be cancelled or materially changed without the insurer providing the Trust Council with 30 days written notice stating when such cancellation or change is to be effective;
 - (f) be maintained for a period of 12 months after completion of the contract;
 - (g) policy deductible must be less than \$5,000.00 per occurrence and be evidenced on the certificate;
 - (h) include a cross liability clause; and
 - (i) be on other terms acceptable to the Trust Council, acting reasonably.
 3. The Contractor shall provide the Trust Council with certificates of insurance confirming placement and maintenance of all required insurance prior to the commencement of the Term and promptly thereafter upon receiving a request to do so from the Trust Council.
 4. The Contractor will (if applicable) provide evidence of Professional Errors & Omissions insurance, with a limit of not less than two million dollars (\$2,000,000) for all claims (in the aggregate). The policy shall cover all liability assumed by the Contractor under the terms of this agreement.
 5. The Contractor will (if applicable) carry employer’s liability insurance and ensure that all of its workers are covered by Worksafe BC Insurance or any other similar legislative scheme in force in any jurisdiction where the services are performed or provided.
 6. Notwithstanding the foregoing, the Trust Council may, in the Trust Council’s sole discretion and upon request by the Contractor, exempt the Contractor from the requirements of this Part D (1) & (2) and agree to cover the Contractor under the Trust Council’s own comprehensive general liability insurance coverage, as it may extend to independent contractors.
-

PART E – ADDITIONAL TERMS

1. All digital information, content, reports, data, databases, graphics, maps, interfaces, texts, and files recorded, given, sent or transferred by the Trust Council to the Contractor via flash drive, e-mail or other method of transmission during the Term (collectively, the “Data”) is confidential in nature and the Contractor agrees to treat this data and information accordingly. The Trust Council grants the Contractor the limited non-exclusive license to use the Data for the Term for the performance of the Services. The Contractor agrees to not release any part of the Data to a third party or grant access to any other organizations or persons. The Contractor shall not de-compile, disassemble, reverse engineer, copy or otherwise use the Data except as in accordance with this Agreement.
2. The Contractor indemnifies and saves harmless the Trust Council, its board members, officers, employees, agents, and assigns from any and all liabilities, actions, damages, claims, losses, costs and expenses whatsoever (including without limitation, the full amount of all legal fees, costs, charges and expenses whatsoever) in any way, directly or indirectly arising the Contractor’s use or failure to use the Data.
3. The Contractor acknowledges and agrees to the following limited warranty and limitation on rights and remedies:
 - (a) the Trust Council provides the Data to the Contractor “as is,” without warranty of any kind, express or implied, including but not limited to the implied warranties of accuracy, completeness, and fitness for any particular purpose with respect to the Data and any accompanying written materials and without any representations as to ownership of or copyright in the Data;
 - (b) in no event shall the Trust Council be liable to the Contractor or any other party for losses or damages, including any loss of profits, lost savings, injury to property, or other incidental or consequential damages arising out of the Data, including but not limited to financial losses from use of or reliance on Data, loss or corruption of Data, and computer viruses, or the Contractor’s inability to use the Data, even if the Trust Council has been advised of the possibility of such damages; and
 - (c) the Contractor assumes and accepts all risks, damages and hazards in connection with the accuracy, completeness, results, performance, use or inability to use the Data.
4. Upon completion of the project comprising the Services, the Contractor agrees to return all Data and remove all Data from the Contractor’s information systems, except for one backup copy of the final product, unless otherwise required by Trust Council. This project is considered complete upon final acceptance of the Trust Council. At the time of invoicing the Contractor must sign a statement indicating that all Data has been returned and/or destroyed except for a backup copy of the final product that the Contractor may keep for future edits and archival purposes, unless Trust Council otherwise prohibits the keeping of such backup copy.

PART F – PRIVACY PROTECTION PROVISIONS

Where the Privacy Protection Provisions are attached as Schedule “B”, the Contractor shall be solely responsible for familiarizing itself with those provisions, and ensuring that the Contractor complies with the laws applicable to the collection and dissemination of information as outlined in Schedule “B”, if any.

PART G – GLOBAL POSITIONING SYSTEM SPECIFICATIONS

Where the Global Positioning System Specifications are attached as Schedule “C” the Contractor shall be solely responsible for familiarizing itself with those specifications, and ensuring that the deliverables meet the specifications as outlined.

PART H – ISLANDS TRUST VISUAL STYLE GUIDE

Where the Islands Trust Visual Style Guide is attached as Schedule “D” the Contractor shall be solely responsible for familiarizing itself with the requirements, and ensuring that the deliverables meet the principles as outlined.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement as of xxxxxxxxxxxx

SIGNED AND DELIVERED on behalf of The Islands Trust Council by
an authorized representative of The Islands Trust Council

SIGNED AND DELIVERED by an authorized signatory of the
Contractor

THE ISLANDS TRUST COUNCIL

THE CONTRACTOR

Signature of Authorized Representative

Signature of Authorized Representative

Print Name of Authorized Representative and Date of execution
below:

Print Name of Authorized Representative and Date of execution
below:

Name: Julia Mobbs – Director, Administrative Services

Name: _____

Date: _____

Date: _____

SCHEDULE "A"

TERMS AND CONDITIONS

CONTRACTOR OBLIGATIONS

1. The Contractor will:
 - (a) notwithstanding the date of the execution and delivery of this Agreement, provide the Services during the Term, both as defined in Part A, at the Contract Price established in Part B, and in accordance with the terms and conditions set out in this Agreement;
 - (b) supply all labour, materials and approvals necessary to provide the Services at its own expense;
 - (c) upon request of the Trust Council, fully inform the Trust Council of the work done by the Contractor in connection with the provision of the Services and permit the Trust Council at all times to inspect, review and copy all accounting records, findings, data, specifications, drawings, working papers, reports, documents and material (collectively the "Material"), whether complete or otherwise, that have been produced, received or acquired by the Contractor as a result of this Agreement;
 - (d) comply with all applicable municipal, provincial and federal laws;
 - (e) not assign this Agreement, nor subcontract any of its obligations under this Agreement, to any person, firm or corporation without the prior written consent of the Trust Council, which shall not be unreasonably withheld. No subcontract will relieve the Contractor from any of its obligations under this Agreement;
 - (f) at all times maintain a standard of care, skill and diligence in performance of the Services exercised and observed by persons engaged in the provision of services similar to the Services;
 - (g) at all times treat as confidential all information or material supplied to or obtained by the Contractor or its subcontractors as a result of this Agreement and will not permit the publication, release or disclosure of the same without the prior written consent of the Trust Council;
 - (h) not provide any services for any other person or corporation which, in the reasonable opinion of the Trust Council, may give rise to conflict of interest;
 - (i) be an independent contractor and not the servant, employee or agent of the Trust Council;
 - (j) ensure that all persons employed by it in connection with the provision of the Services are competent to perform them, adequately trained, fully instructed and supervised;
 - (k) accept instructions from the Trust Council with respect to the Services provided that the Contractor will not be subject to the control of the Trust Council in respect of the manner in which such instructions are carried out except as specified in this Agreement;
 - (l) ensure that all personnel hired by the Contractor to provide the Services will be the employees of the Contractor and not the Trust Council;
 - (m) not in any manner whatsoever commit or purport to commit the Trust Council to the payment of any money except pursuant to this Agreement;
 - (n) establish and maintain time records and books of account, invoices, receipts and vouchers of all expenses incurred in form and content satisfactory to the Trust Council;
 - (o) indemnify and save harmless the Trust Council, its employees and agents, from and against any and all losses, claims, damages, actions, causes of action, costs and expenses that the Trust Council may sustain, incur, suffer or be put to at any time either before or after the expiration or termination of this Agreement, where the same or any of them are based upon, arise out of or occur, directly or indirectly, by reason of any act or omission of the Contractor or of any agent, employee, officer, director or sub-contractor of the Contractor pursuant to this Agreement, excepting always liability arising out of the independent negligent acts of the Trust Council;
 - (p) during the Term, provide, maintain and pay for insurance in such form and amounts, with such deductibles, and according to the terms and conditions outlined in Part D of this Agreement, as amended from time to time in accordance with directions of the Trust Council; and
 - (q) make application for, obtain and remit to the Trust Council any applicable refund or remission of federal and provincial taxes, duties or impost available with respect to any articles, materials or equipment used in connection with this Agreement; and
 - (r) be solely responsible for familiarizing itself, and ensuring that it complies, with the laws applicable to the collection and dissemination of information as outlined in Schedule "B", if any.

THE CONTRACT PRICE

2. In no event will the fees and expenses payable to the Contractor in respect of the Services exceed, in the aggregate, the amount, the Contract Price.
3. Fees will be based on the rate set out in Part B of this Agreement as the "Rate".
4. The Contractor will submit written statements of account to the Trust Council commencing no sooner than the date set out in Part B as the "Billing Date" and thereafter as specified in Part B of this Agreement.

TRUST COUNCIL OBLIGATIONS

5. The Trust Council will:
 - (a) subject to the terms of this Agreement, pay to the Contractor the Contract Price in full payment and reimbursement for providing the Services based on the fees and expenses set out in Part B of this Agreement, and the Contractor will accept the same as full payment and reimbursement as aforesaid;
 - (b) at its discretion, hold back from the Contract Price, sufficient monies to indemnify the Trust Council completely against any lien or claim of lien arising in connection with the provision of the Services; and
 - (c) make available to the Contractor all available information considered by the Trust Council to be pertinent to the provision of the Services.

TERMINATION

6. In the event of a substantial failure of a party to comply with the provisions of this Agreement, this Agreement may be terminated by the other party on 5 days written notice.
7. The Trust Council may, in its sole discretion, terminate this Agreement on 10 days written notice and the payment of funds required to be made pursuant to section 8 will discharge the Trust Council of all of its liability to the Contractor under this Agreement.
8. Where this Agreement is terminated before 100% completion of the Services, the Trust Council will, subject to section 7, pay to the Contractor that portion of the Contract Price which is equal to the portion of the Services completed to the satisfaction of the Trust Council prior to termination.
9. Where the Contractor fails to comply with the provisions of this Agreement, the Trust Council may, in addition to terminating this Agreement, pursue such remedies as it deems necessary.

GENERAL

10. This Agreement will be governed by and construed in accordance with the laws of the Province of British Columbia.
11. Time will be of the essence of this Agreement.
12. Any notice required to be given hereunder will be delivered by hand or mailed by prepaid registered mail to the addresses on the reverse of this Agreement (or at such other address as either party may from time to time designate by notice in writing to the other), and any such notice mailed will be deemed to be received 48 hours after mailing.
13. This Agreement will be binding upon the Trust Council and its assigns and the Contractor, its successors and permitted assigns.
14. A waiver of any provision or breach by the Contractor of this Agreement will be effective only if it is in writing and signed by the Trust Council and will not be deemed to be a waiver of any subsequent breach of the same or any other provision of this Agreement.
15. The Material and any other property provided by the Trust Council to the Contractor or subcontractor will:
 - (a) be the exclusive property of the Trust Council; and
 - (b) be delivered by the Contractor to the Trust Council immediately upon the Trust Council giving notice of such request to the Contractor.
16. The copyright in the Material will belong at all times exclusively to the Trust Council and the Contractor hereby assigns to the Trust Council its copyright in all Material produced or provided by the Contractor under this Agreement.
17. The Schedules to this Agreement (including this Schedule "A") form an integral part of this Agreement. Unless the context otherwise requires, any reference to "this Agreement" means the instrument and all of the Schedules attached to it and all documents, manuals or

publications referenced in the Schedules and any reference in this Agreement to any Part, section, subsection or paragraph by number is a reference to the appropriate article, section, subsection or paragraph in this Agreement.

18. Where the Contractor is a corporation the Contractor hereby represents and warrants to the Trust Council that the signatory has been duly authorized by the Contractor to enter into this Agreement without corporate seal on behalf of the corporation.
19. No amendment or modification to this Agreement will become effective unless the same will have been reduced to writing and duly executed by the parties hereto.
20. This Agreement, and any amendment made pursuant to section 19, constitutes the entire agreement between the parties.
21. Sections 1 (c), (h), (i), (o), (q), and 16 of this Schedule "A" will, notwithstanding the expiration or earlier determination of the Term, remain and continue in full force and effect.