



REQUEST FOR PROPOSALS

FOR

LIDAR AND AERIAL IMAGE ACQUISITION FOR THE OKANAGAN VALLEY WATERSHED

RFP #: 2018-RFP-01

ISSUED ON: February 2nd, 2018

CLOSING DATE AND TIME: February 22nd, 2018 at 3:00pm Local Time

Summary, Contents & Instructions:

Summary:

Through this Request for Proposals, the Okanagan Basin Water Board invites Proposals from firms specializing in the supply of LIDAR and aerial image acquisition and associated services for the Okanagan Valley Watershed, as further described in Part A of this RFP.

This RFP document sets-out: the details of the Services required; the process for submission, evaluation and award of the Contract; the terms and conditions of the Contract; plus forms which outline the information a Respondent to this RFP should submit in their Proposal.

Contents:

This Request for Proposals (the “RFP”) is organized into the following parts:

- **Part A: The Services** – full details of the services required.
- **Part B: The RFP Process** – the process for submissions, evaluation and award of the Contract
- **Part C: The Contract** – the Contract the OBWB will enter into with the selected Contractor
- **Part D: Submission Forms** – the forms a Respondent should submit in their Proposal

Instructions:

Whenever you see the following symbol and box throughout this document, this box is providing instructions to a Respondent on what this section means and/or what a Respondent must do:

Example:



Whenever you see this box throughout the RFP document, the text is providing instructions or information on what this section means and/or what a Respondent must do.

Part A: The Services



This Part A provides details on the Services required by the Okanagan Basin Water Board. Respondents should ensure they are fully capable of providing all of the requirements outlined, as this section will form the scope of work in the final Contract.

Note: “Exhibits A and B” are referred to throughout this Part A. Exhibits A and B contain the maps which show the LOTS as referred to herein. The Exhibits are attached at the end of this RFP document.

1. Overview:

Following the dramatic flooding in 2017, there is a desire by Okanagan local governments, First Nations, and the Province of BC to undertake risk assessments and flood mapping, and make the Okanagan more resilient to extreme precipitation. Numerous local governments and the Okanagan Nation Alliance have secured grant funding for these activities. Emergency Management BC (EMBC) is also working to secure additional funding for the Okanagan. The Okanagan Basin Water Board (OBWB) is a local government watershed agency, structured as a partnership of the Regional District of North Okanagan, the Regional District of Central Okanagan, and the Regional District of Okanagan-Similkameen with a mandate to support sustainable water management (www.obwb.ca).

The OBWB is coordinating a collaborative funding partnership to capture LiDAR and digital aerial imagery for the Okanagan watershed and to facilitate flood mapping and risk assessments. The funding partnership includes OBWB, Okanagan local governments, EMBC (an agency within the Ministry of Public Safety & Solicitor General), and GeoBC (a branch within the Ministry of Forests, Lands, Natural Resource Operations and Rural Development). The OBWB will manage funding, hold the Contract and disburse funds for this project. GeoBC will be the technical consultant, contract monitor and project manager, acting as an agent for OBWB. GeoBC will review the proposals and make recommendations to OBWB and its funding partners on the Contract award. GeoBC will also oversee the delivery of the project, QA/QC, and data management.

The partnership seeks to obtain LiDAR and produce orthoimagery for the entire watershed, and has structured this RFP to accommodate mapping requirements, the timing of funding approvals, and environmental constraints (the need for low water, snow free and smoke free conditions, among others). The watershed has been divided into three areas, with two Plans that must both be bid on as separate alternatives.

Note: The highest priority for this project is to obtain LiDAR for the critical lakeshore, creek shore and other flood-prone valley bottom areas (LOT A – Exhibit A), under low-water, leaves off conditions.

2. Contract Term:

The term of this contract is anticipated to commence upon the contract award from this RFP process (March 6, 2018) and will continue until December 31, 2018. There are deliverables required by earlier milestone dates, as outlined in this Part A.

3. Proposal Requirements – 2 Plans:

The Services in this RFP are separated into three “LOTS” of work. This is for logistical/timing reasons, and also for managing different funding sources. These “LOTS” are organized into two “PLANS” of work as outlined below. Only one of the two PLANS outlined below will be awarded as a Contract following this RFP. Respondents must submit Proposals on both PLAN One and PLAN Two.

- PLAN ONE: LOT A to be flown for LiDAR in March 2018, at low-water conditions; LOT B and LOT C will be flown for LiDAR and digital imagery in July - September 2018; orthoimagery for LOT A will be flown at the same time as digital imagery for LOT B and C.
- PLAN TWO: LOT A and LOT B to be flown for LiDAR (no digital imagery) in October 2018.

Note: Exhibits A and B to this RFP contain maps which provide further details on the areas covered by each LOT.

In both PLANS, LOT A must be flown for LiDAR under low-water conditions. PLAN One proposals MUST acquire LiDAR in March 2018. If lake levels allow, acquisition flights might be continued into April.

4. Services Required (Scope of Work):

The Contractor will be required to complete the Scope of Work, for the PLAN awarded, as detailed in the following sections:

- Capture, calibrate and derive LiDAR point cloud data including intensity values for the areas as outlined (Exhibits A and B) between March 15, 2018 and October 31, 2018. The LiDAR system must be capable of recording multiple returns over terrestrial terrain.
- Capture, calibrate and produce geo-referenced digital aerial imagery at a ground sample distance (GSD) of 7.5cm and no more than 12cm(GSD) along steep valley slopes for the area as outlined (Exhibits A and B) between May 31, 2018 and September 15, 2018.
- Provide ground control suitable for aerial imagery and LiDAR data verification checks over the entire area (Exhibits A and B) as outlined between March 15, 2018 and October 31, 2018.

Derive the following geo-spatial products from LiDAR and digital imagery for the entire area (Exhibits A and B):

- LiDAR point cloud data including ground classification
- Stereo model setups according to specifications
- RGBiR /RGB ortho imagery at a 10cm ground resolution
- 1m gridded digital elevation model (DEM) at a vertical accuracy of $\pm 10\text{cm}$ (NVA,1dRMS @ 68%) and according to specifications

- spectral encoded (RGB) digital surface model (DSM) based on digital camera and LiDAR point cloud data input
- provide quality assurance and quality control services (QA/QC) for acquired and derived products from LiDAR and digital imagery according to specifications as provided by the Province.
- provide a web based Online Acquisition Reporting System (OARS) capable of visualizing photo center/LiDAR footprint acquisition progress and QA/QC status updates.
- provide additional metadata according to provincial specifications, and other reports upon request by the branch.

5. Required Objectives / Performance Standards:

5.1.1 Acquisition and Accuracy

Vertical absolute accuracy for LiDAR ground points: $\sigma_z \leq \pm 10\text{cm}$ (1dRMS, 68% confidence) with a maximum outlier deviation of $\leq 3 * \sigma_z$ (3 Sigma) and reported as Non Vegetated Vertical Accuracy (NNVA)

Horizontal absolute accuracy for LiDAR ground points: $\sigma_{xy} \leq \pm 35\text{cm}$ (1dRMS, 63%... 68% confidence). This includes the *overall* theoretical horizontal error budget after sensor calibration and LiDAR point cloud adjustment in 2D as well as the error of the ground projected circular laser beam divergence at Nadir over flat terrain (0° scan angle). The maximum outlier deviation shall be $\leq 3 * \sigma_{xy}$ (3 times the RMS).

Sun angle: minimum sun angle no less than 32°

Bit depth: Digital frame camera system must be capable of acquiring at a pixel depth of 12Bit/Pixel including the 4 spectral bands RGBiR or RGBniR

Imagery overlap: suggested to allow for a minimum 60% forward and minimum 30% lateral overlap

Space weather: No flights are to be started when the Space Weather Forecast for a geomagnetic storm is greater than a K-level index > 6. Space Weather Forecast are to be determined by Natural Resources Canada, Canadian Space Weather Forecast Centre <http://www.spaceweather.gc.ca/forecast-prevision/regional/sr-1-en.php?region=vic&mapname=southwestern>

Horizontal Dilution of Precision (HDOP): GPS HDOP values are required to be ≤ 20 during the acquisition period

Weather Conditions between Sensor and Ground: Free of airborne particles such as, but not limited to rain, snow, fog, cloud, excessive smoke

Ground Conditions: must be free of snow and no acquisition in local areas within one day after rain events that have a total rainfall $\leq 50\text{mm}/24\text{h}$.

Inertial Navigation and Geo-referencing: use of a drift corrected and *InSitu- calibrated GPS/INS* system for LiDAR/digital cameras is mandatory

Aircraft dynamics: banking turns (roll) between flight lines shall not exceed a roll angle of 20° unless required for the safety of the aircrew.

LiDAR design ground point density: $\geq 12 \text{ pulses}/\text{m}^2$, evenly distributed in forward and lateral spacing.

Acquired LiDAR ground point density: shall be reported based on the specifications for LiDAR and no less than $12 \text{ points}/\text{m}^2$ over the entire project area, calculated on hard surfaces (roof tops, roads, man-made structures of planar character), evenly spaced, excluding open water area.

Laser range observations: capable of providing intensity values and a *minimum* of four (4) returns per individual laser pulse (first, second, third, last returns).

Laser beam footprint : shall be computed based on the American National Standard Z136.1-2007 for eye safe lasers and $\leq 40\text{cm}$ in diameter (radially computed at Nadir position at design flying height above ground, 0° angle of reflectance)

Design scan Angle: $<\pm 30$ degrees referenced to nadir position

LiDAR Swath overlap: $\leq 30\%$ of entire swath width at flying height

Sensor calibration: The Contractor must be able to perform an *InSitu* calibration for the LiDAR and camera systems before commencing the acquisition at design altitude. The calibration is to be repeated any time a sensor or system components are replaced. ***Results must be submitted and approved by GeoBC before commencing data acquisition.***

5.1.2 Ground Control

The Contractor is responsible to acquire a minimum of 10 visible ground control points evenly dispersed throughout the entire project area. Please see section 5.2.3 of the "Specifications for LiDAR" V3.0 March 2017, GeoBC for additional details on ground control requirements and section 8.4 for reporting and submission formats.

5.1.3 Manufacturer based Camera Calibration report

GeoBC accepts manufacturer provided full digital frame calibration (radiometric and geometric calibration). The date of the last calibration protocol ***must not exceed more than 3 years*** from the date of the signed contract.

5.1.4 InSitu Camera Calibration report

Submission of an InSitu camera calibration report to GeoBC (before commencing the acquisition) including obtained lever arm offsets, boresight (angular) misalignments and interior camera orientation parameters (IOP). In addition, precision information (STDEV or Variance/Covariance) of parameter estimates including lever arm and boresight parameters, and IOP.

5.1.5 In Situ LiDAR Calibration report

Submission of an InSitu camera calibration report to GeoBC (between signing the Contract and commencing the acquisition) including obtained lever arm offsets and boresight (angular) misalignments as well as additional LiDAR system parameter such as laser range, scanner scale and offsets. For additional information on reporting please refer to the “Specifications for LiDAR” V3.0 March 2017, GeoBC section 8.0 “Requirements For Deliverables.”

5.1.7 Horizontal/Vertical Datum

The horizontal and vertical datum for derived products shall be NAD83(CSRS)/CGVD2013. GPS ellipsoidal height to CGVD2013 conversion must be based on the CGG2013 geoid as provided by Natural Resources Canada (NrCan):

<http://webapp.geod.nrcan.gc.ca/geod/tools-outils/gpsh.php?locale=en>

5.2. Products

5.2.1 LiDAR point cloud

LiDAR point classification according to Section 6.3 of the “Specifications for LiDAR” V3.0 March 2017, GeoBC into the following classes:

- Ground,
- Atmospheric noise
- Outliers
- Non-ground

Exemptions/clarifications from the above stated specifications:

Ground returns: defined as a bare earth representation of the physical earth, free of man-made features and vegetation cover. See LiDAR specs for details.

- Tiling scheme for LAZ point cloud data:

According to the Geographic BC tiling scheme in UTM projection; please see additional info for LAZ data in Section 6.4 of the “Specifications for LiDAR” V3.0 March 2017, GeoBC.

- LAS point cloud file naming convention:

[Ownership]_[Geographic Extent]_x[C][Classification]_[Target Shot Density]_[Projection]_[year- month-day].las

where: Ownership = GeoBC ; Geographic Extend = Geographic BC Map tile; C = RGB or RGBir (if there is no color band the C is left out of the file name); Classification = YES or NO ;Shot

Density = shots per square meter and may be an integer number (i.e. 5) or a decimal number denoted by 'p' (i.e. 7p03); Projection = Map projection (i.e. bcalb for BC Albers, or utm10 for Universal Transverse Mercator zone 10 North); Year of acquisition = Year-Month-Day in 8 digit format (i.e. 20150611) Note: There should be NO capital letters, "-" or extra "." Characters in ANY file names. The suggested maximum file size per LAS file shall be $\leq 2\text{Gb}$ and govern the map sheet scale.

Example: geobc_092l081_1_1_3_xYES_7_UTM_201206-2012.las

- LiDAR point cloud data format and submission: *See section "Specifications for LiDAR" Vers 3.0 March 2017*. Individual areas on storage media need to be broken down and submitted into specific directories and sub directories according to:
 - <DRIVE#>:\<SPECIFIC AREA NAME>\ACQUISITION_DELIVERABLES
 - <DRIVE#>:\<SPECIFIC AREA NAME>\ PRODUCTION_DELIVERABLES\ DERIVED_PRODUCTS
 - <DRIVE#>:\<SPECIFIC AREA NAME>\PRODUCTION_DELIVERABLES\LAS_POINT_CLOUD
 - <DRIVE#>:\<SPECIFIC AREA NAME>\PRODUCTION_DELIVERABLES
 - <DRIVE#>:\<SPECIFIC AREA NAME>\ADDITIONAL_INFORMATION

Example:

```
F:\OKANAGAN_LOT_A\PRODUCTION_DELIVERABLES\DERIVED_PRODUCTS
F:\OKANAGAN_LOT_A\PRODUCTION_DELIVERABLES\LAS_POINT_CLOUD
F:\OKANAGAN_LOT_A\PRODUCTION_DELIVERABLES
F:\OKANAGAN_LOT_A\ADDITIONAL_INFORMATION
```

5.2.2 Digital Images

- Uncompressed 4-band raw aerial imagery at a GSD of 7.5cm
- Uncompressed 3-band raw aerial imagery at a GSD of 7.5cm
- Compressed 3-band raw aerial imagery at a GSD of 7.5cm

5.2.3 Stereo models

- Stereo model setups: 4-band compressed image files (8bit, RGBiR or RGBniR) in pyramidized JPEG-compressed TIF format and *Z/I Imaging* project setup and a GSD of 7.5cm.

5.2.4 Ortho images

- 10cm resolution, natural ortho imagery in 8bit RGB, NAD83/CGVD2013, UTM projection, uncompressed ortho imagery, TIF format. **1:20,000 Geographic BC tiling grid.**
- 10cm resolution 10:1 compressed (File compressed) Ortho Image, UTM projection, MrSid 3.0 format. **1:20,000 Geographic BC tiling grid.**

Note: Ortho images for the entire project must be radiometrically normalized to eliminate the quilting effects between all adjoining 1:20K imagery. A test area representing at least four adjacent 1:20K Geographic BC map sheets must be submitted for acceptance before proceeding with the final production. Where the Proponent discovers that an ortho imagery tile has less than 50 percent contiguous coverage, it must be brought to the attention of GeoBC for instruction as to how to proceed.

5.2.5 Digital Elevation Model (DEM)

- 1m-gridded Digital Elevation Model (DEM) according to the “Specifications for the Production of Digital Elevation Models for the Province of BC” V2.2 May 2017, GeoBC.
1:20,000 map scale in Geographic BC tiling grid.

Note: DEM production must include hydro flattening.

5.2.6 Digital Surface Model (DSM)

- *Optional* spectral encoded (RGB) Digital Surface Model (DSM) based on a 0.1m...1.2m irregular point spacing in LAS 1.4 format, scaled at 1:20,000 in the Geographic BC tiling grid. This type of DSM is also referred to as a Digital Terrain Model (DTM) in section 4.1 of the DEM specification document.

Note: Water bodies $\geq 0.5\text{Ha}$ shall be flattened, with the edge at or below the immediate ground level.

5.2.7 Shore Line Delineation

- Digitizing of the shore line (transition between water surface and shore) and submission in ESRI Shape file format (closed Polygon).

See Appendix C of Part D for additional Methodology Requirements.

6. Data Deliverable Specifications

6.1 LiDAR

Product	SOURCE	GSD	BIT DEPTH	#BANDS	SPECTRAL BANDS	ENHANCED	# COPIES	COMPRESSION	FORMAT	DATUM	PROJ	MEDIA	SPECS	DELIVERY DEADLINE
DIGITAL DATA SUBMISSIONS														
LiDAR point cloud (classified)	LiDAR	--	8/12		Intensity	Classified	3	1:20000 BCGS map tiles unless file size exceeds	LAS V1.4	NAD83 CGVD2013	UTM	EXT HD USB3.0 (SEPARATE DRIVE)	SPEC 3	Project deadline
DEM Break lines incl Shore Line Delineation	Ortho/LiDAR	--	--	--	--	--	2	--	ESRI Shape file	NAD83 CGVD2013	UTM	EXT HD USB3.0	--	Project deadline
1m gridded Digital Elevation Model	LiDAR Stereo Imagery/ Mass points	LiDAR @ 2pts/m ²	--	--	--	--	2	1:20000 BCGS map tiles unless file size exceeds	USGS/DEM	NAD83 CGVD2013	UTM	EXT HD USB3.0	SPEC 2	Project deadline
Spectral encoded DSM	Imagery/ LiDAR point cloud	0.1...1.2m	8	3	RGB	--	2	1:20000 BCGS map tiles unless map size exceeds 2GB	LAS V1.4	NAD83 CGVD2013	UTM	EXT HD USB3.0		Project deadline

6.2 Imagery

Product	SOURCE	GSD	BIT DEPTH	#BANDS	SPECTRAL BANDS	ENHANCED	# COPIES	COMPRESSION	FORMAT	DATUM	PROJ	MEDIA	SPECS	DELIVERY DEADLINE
UNCOMPRESSED IMAGERY														
4 -BAND RAW AERIAL	4 -BAND RAW AERIAL	7.5cm	12	4	RGBniR/iR	--	2	--	TIF	--	--	EXT HD USB3.0	--	4 weeks past acquisition deadline
3- BAND RAW AERIAL	4 -BAND RAW AERIAL	7.5cm	8	3	RGB	--	1	--	TIF	--	--	EXT HD USB3.0	--	4 weeks past acquisition deadline
3-BAND Ortho	3- BAND RAW AERIAL	10cm	8	3	RGB	N	2	--	TIF	NAD83/CGVD2013	UTM, 1:2,500	EXT HD USB3.0	--	Project deadline
COMPRESSED IMAGERY														
4-Band Stereo model setups	4- BAND RAW AERIAL	7.5cm	8	4	RGBniR/iR	--	1	15:1 file size compression compared to source	JPEG	--	--	EXT HD USB3.0	--	Project deadline
3-BAND Ortho	3- BAND RAW AERIAL	10cm	8	3	RGB	N	2	10:1 file size compression	MrSid 3.0	NAD83/CGVD2013	UTM, 1:2,500	EXT HD USB3.0	--	Project deadline

7. Pre-Requisites for the Contractor:

Project Manager:

- oversee all stages and aspects of the project
- be familiar with technical aspects of the project to ensure all products meet specifications
- ensure strict QC of products delivered
- submit continuous production spreadsheets to GeoBC and attend bi-weekly project status update meetings
- guarantee that this project will receive consistent 1st priority handling throughout the acquisition, production and indexing procedures
- be able to meet with the Province and subcontracting acquisition parties (if included in the project) in person at 3400 Davidson Avenue, Victoria within 24 hours if requested by GeoBC or OBWB.

8. Disclosures by the OBWB:

- **The Province and the OBWB have entered into an MOU for this project.** The OBWB will hold the Contract, and the Province (GeoBC) will be an agent for OBWB to monitor the contract, and provide contract management. The copyright and intellectual property from this project will be held by the Province of BC.
- **Relationship to Recent RFI by the Regional District of Central Okanagan (RDCO):** On January 8, 2018, the RDCO released a Request for Information (RFI) for the provision of Flood Management Data Collection and Modeling. The RFI closed on January 22, 2018. As RDCO is a funding partner in this project, they have provided non-confidential portions of the RFI responses to the OBWB, the other funding partners, and to GeoBC for consideration in the preparation of this RFP.
- **Budget Disclosure**

Provincial funding approvals will determine, in part, how OBWB will proceed with the two project plans outlined. Proponents to this RFP must propose on both PLAN ONE and PLAN TWO, as detailed in section 4 of this Part A.
- **Data Disclosure**

Emergency Management BC (EMBC), with the support of GeoBC, captured LiDAR and digital imagery for Okanagan Basin lakeshore areas at the height of flooding in late May/early June of 2017. These files are available from GeoBC if required for these services.

Part B: The RFP Process



This Part B details the terms and conditions of how this RFP process will be run by the OBWB, and how the Contractor will be selected. Respondents to this RFP must ensure they follow all the terms detailed below. Failure to follow the terms of this Part B may result in a Proposal being rejected.

1. Key Details:

1.1. RFP Contact Person:

The sole point of contact at the Okanagan Basin Water Board for any queries or questions related to this RFP is:

- James Littley, Operations & Grants Manager
- Email: james.littley@obwb.ca

The above-named RFP Contact Person is the only person that any Respondent to this RFP may contact during this RFP process. Information obtained from any source other than the RFP Contact Person is unofficial and must not be relied upon as part of this RFP. Respondents must not contact any other employees, officers, consultants, agents, elected officials or other representatives of the Okanagan Basin Water Board regarding matters related to this RFP. Any Respondent found to have contacted persons other than the RFP Contact Person, may be disqualified from submitting a Proposal, or have their Proposal rejected.

All questions regarding this RFP must be submitted in writing prior to the Deadline for Questions detailed under Section 1.2 of this Part B. Questions received after the Deadline for Questions will be addressed if time permits. The Respondent is solely responsible for seeking any clarification required regarding this RFP, and the OBWB shall not be held responsible for any misunderstanding by the Respondent.

1.2. Timetable:

This RFP process will run to the following timetable. This timetable may be amended at the OBWB's discretion through the issuance of an addendum to this RFP.

Event:	Date:
Issue Date of this RFP	February 2, 2018
Deadline for Questions	February 15 th , 2018
Last Day for Issue of Addenda	February 16 th , 2018
RFP Closing Date and Time:	February 22 nd , 2018 At 3:00 PM
Notice of Award Date (estimated)	March 1 st - 6 th , 2018

1.3. Site Meeting:

No Site Meeting will be held for this RFP.

1.4. Submission of Proposals (Address, Date & Time, Format):

Proposals to this RFP should be submitted in accordance with the following:

- **Email Address:** Proposals must be submitted by email to: james.littley@obwb.ca
- **RFP Closing Date and Time:** Proposals must be received no later than February 22nd, 2018 at 3:00pm Local Time
- **Format:** One copy containing all of the information required in the forms listed under Part D – Submission Forms

The complete Proposal must be received at the email address detailed above no later than the Closing Date and Time. It is the Respondent's sole responsibility to ensure that the electronic Proposal is received before the RFP Closing Date and Time. Electronic Proposals must not exceed 10 megabytes in total email size. The Okanagan Basin Water Board assumes no responsibility for the receipt of email Proposals and will not be liable to any Respondent if for any reason a Proposal is not properly received prior to the Closing Date and Time. Proposals that are not received on or before the Closing Date and Time will not be considered any further in the RFP process.

2. Definitions Used in this RFP:



The following are definitions used in this RFP document. Whenever one of the following terms is used with a capitalized first letter, the term shall have the meaning as set out in this section.

- 2.1. "Addenda" or "Addendum" means additional information or amendments to this RFP, issued by the OBWB in accordance with Section 5 of this Part B.
- 2.2. "Agent" means an organization that has been given express written permission by the OBWB to act on its behalf during this RFP process and/or during administration of the Contract. This shall include the Province of British Columbia.
- 2.3. "OBWB" means the Okanagan Basin Water Board
- 2.4. "Contract" means the written agreement resulting from this RFP, executed between the OBWB and the successful Respondent to this RFP.
- 2.5. "Contractor" means the successful Respondent to this RFP who enters into a Contract with the OBWB.
- 2.6. "Closing Date and Time" means the date and time that Proposals to this RFP must be received by in accordance with Section 1.2 of this Part B.
- 2.7. "Must" or "Mandatory" means a requirement that must be met in order for a Proposal to receive consideration.
- 2.8. "Proposal" means a Proposal submitted by a Respondent in response to this RFP.
- 2.9. "Respondent" means a person or entity that submits a Proposal to this RFP.
- 2.10. "RFP" means this Request For Proposals # 2018-RFP-01 including all Parts A to D.
- 2.11. "Section" means the numbered section of the referenced part of this RFP.
- 2.12. "Services" means the Services which the OBWB seeks to be provided by the Contractor, as outlined in Part A.

- 2.13. “Subcontractor” means a person, partnership, firm or corporation that the Respondent proposes to contract with to deliver part of the Services, in a subordinate relationship to the Respondent.

3. Amendment of a Proposal by Respondent:

A Respondent may amend a Proposal at any time up until the RFP Closing Date and Time. Amendments must be submitted in the same way as the original Proposal, as detailed in Section 1.3 of this Part B. Amendments to a Proposal must be clearly labelled as such, must contain the RFP reference number and title, and the full legal name and legal address of the Respondent. Amendments must clearly detail which part(s) of the Proposal is being amended or replaced.

4. Revocation of a Proposal by Respondent:

A Respondent can revoke a Proposal that is already submitted, at any time throughout the RFP process up until the execution of a written Contract for the provision of the Services as detailed in Section 6.6 of this Part B.

5. Addenda Issued by OBWB:

This RFP may only be amended by way of an Addendum issued in accordance with this Section. At any time up until the Closing Date and Time, the OBWB may issue an Addendum in order to amend, clarify, or answer questions to this RFP. Each Addendum will be issued at the same location and in the same manner as this RFP document (www.obwb.ca/rfp/). Each Addendum will form an integral part of this RFP. Respondents are solely responsible for checking for Addenda up until the Closing Date and Time. If the OBWB deems it necessary to issue an Addendum after the Last Day for Issue of Addenda, as detailed in Section 1.2 of this Part B, then the OBWB may extend the Closing Date and Time in order to provide Respondents with more time to complete their Proposal.

Proposals should confirm receipt of all Addenda in Appendix A – Certification Form of their Proposal.

6. Evaluation of Proposals & Award of Contract:

GeoBC will conduct the initial evaluation of Proposals, and make recommendations for selection of a successful Respondent in accordance with the process detailed in this Section. Evaluation of Proposals will be by an evaluation committee which will be primarily comprised of employees of the Province of British Columbia (acting as an Agent for the OBWB), as well as OBWB employees and representatives from OBWB’s municipal partners. The OBWB’s intent is to enter into a Contract based on either Plan One or Plan Two (as described in Part A) with the Respondent who has met all mandatory criteria and minimum scores, and who has the highest overall ranking based on this evaluation process for the Plan that OBWB chooses to proceed with.

6.1. Mandatory Criteria:

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

Mandatory Criteria:	
1	The Proposal must be received by the Closing Date and Time, in accordance with the requirements of Section 1.4
2	The Proposal must include the following completed form: <ul style="list-style-type: none"> Appendix A – Certification Form

6.2. Scored Criteria:

Proposals that meet all of the Mandatory Criteria will be further assessed against the following scored criteria.

Each of the two “Plans” (Plan One and Plan Two) will be evaluated separately according to the following Scored Criteria:

Scored Criteria	Weighting %	Minimum Score (Out of 100)
Total Contract Price (based on Appendix B submission)	20	NA
Most Suitable Methodology (including QA/QC) (based on Appendix C submission)	30	50
Most Suitable Project Manager and Team (based on Appendix D submission)	20	50
Most Suitable Schedule (based on Appendix E submission)	30	50

Proposals that do not meet the minimum score within a scored criterion will not be evaluated further.

6.3. Scoring Method:

The following method will be used to score the scored criteria:

- Total Contract Price: Total Contract Price will be scored relative to other Respondents' Total Contract Prices using the following formula:
 - $\text{Lowest Total Contract Price} \div \text{Respondent's Total Contract Price} \times \text{Weighting} = \text{Score}$
- Other Criteria: All other criterion (except Total Contract Price) will be scored by the evaluation committee out of 100, which will then be multiplied by the Weighting factor to provide a weighted score.

6.4. Clarifications & Remedy Period:

Notwithstanding the requirements for mandatory criteria and scored criteria detailed in this Section 6, the OBWB will allow the following remedies and clarifications at its sole discretion:

- Remedy for Missing Mandatory Criteria: If the OBWB finds that a Proposal fails to meet all of the mandatory requirements detailed in Section 6.1, then the OBWB may provide written notification to a Respondent which identifies the requirements not met and provides the Respondent with 3 calendar days to remedy and supply the requirements. The 3 calendar days shall commence upon notification by the OBWB to the Respondent. This option to remedy missing requirements shall not apply to Proposals not received by the Closing Date and Time.
- Clarification of Proposals: During evaluation of the scored criteria, the OBWB may at its sole option, request further details or clarification from the Respondent and/or third parties, on aspects of a Proposal by way of a written request for clarification. The written request shall clearly state the required clarification and time limit to supply the information requested. Following receipt of the clarification information, the OBWB may use this information to reassess and/or re-score the Proposal according to the scored criteria.

6.5. Ranking of Respondents:

Following completion of the evaluation against the scored criteria, the weighted scores for each Proposal will be added together, and Proposals will be ranked according to their total weighted scores. The Respondent with the highest-ranked Proposal, for the Plan that OBWB decides to proceed with, will be invited to conclude a Contract with the OBWB for that Plan. In the event that two or more Proposals have an equal total weighted-score, then the Respondent with the Most Appropriate Schedule and/or Lowest Total Price will be invited to conclude a Contract with the OBWB.

6.6. Conclusion and Execution of a Contract

Neither the Respondent nor the OBWB will be legally bound to provide or purchase the Services until the execution of a written Contract. Following an invitation to the Respondent, by the OBWB, to conclude a Contract, the parties shall enter into discussions which may include:

- Clarification or amendment to the scope of work, plus any resulting price adjustments, based on items submitted in the Proposal.
- Amendments to the terms and conditions of the Contract (Part C), based on items submitted in the Proposal.

The OBWB shall seek to execute a Contract within 10 days of issuing an invitation to the Respondent to conclude a Contract. If the parties cannot execute a Contract within this time-period, the OBWB may discontinue the process with the Respondent that has the highest-ranked Proposal, and then invite the Respondent with the next-highest-ranked Proposal to conclude a Contract. The OBWB may then continue this process until a Contract is executed, or there are no further Respondents, or the OBWB elects to cancel the RFP process entirely.

7. Other Terms & Conditions of this RFP Process:

The following terms and conditions shall also apply to this RFP:

7.1. Proposals in English:

All Proposals are to be in the English language only.

7.2. Only One Entity as Respondent:

The OBWB will accept Proposals where more than one organization or individual is proposed to deliver the Services, so long as the Proposal identifies only one entity that will be the lead entity and will be the Respondent with the sole responsibility to deliver the Contract if executed. The OBWB will only enter into a Contract with that one Respondent. Any other entity involved in delivering the Service should be listed as a Subcontractor. The Respondent may include the Subcontractor and its resources as per of the Proposal and the OBWB will accept this, as presented in the Proposal, in order to perform the evaluation. All Subcontractors to be used in the Service must be clearly identified in the Proposal.

7.3. Proposals to Contain All Content in Prescribed Forms:

All information that Respondents wish to be evaluated must be contained within the submitted Proposal. Proposals should not reference external content in other documents or websites. The OBWB may not consider any information which is not submitted within the Proposal or within the pre-prescribed forms set-out in this RFP.

7.4. References and Experience:

In evaluating a Respondent's experience, as per the scored criteria, the OBWB may consider information provided by the Respondent's clients on the projects submitted in the Proposal, and may also consider the OBWB's own experience with the Respondent, or the experience of project Partners with the Respondent.

7.5. RFP Scope of Work is an Estimate Only:

While the OBWB has made every effort to ensure the accuracy of the Services described in this RFP, the OBWB makes no guarantees as to the accuracy of the information provided. Any quantities or measurements provided are estimates only and are provided to describe the general nature and scale of the Services. Respondents must obtain all information they deem necessary, including verification of quantities or measurements in order to complete a Proposal.

7.6. Respondent's Expenses:

Respondents are solely responsible for their own expenses in participating in this RFP process, including costs in preparing a Proposal and for subsequent finalizations of an agreement with the OBWB, if required. The OBWB will not be liable to any Respondent for any claims, whether for costs, expenses, damages or losses incurred by the Respondent in preparing its Proposal, loss of anticipated profit in connection with any final Contract, or any matter whatsoever.

7.7. Retention of Proposals and FOIPPA:

All Proposals submitted to the OBWB will not be returned and will be retained in accordance with the Freedom of Information and Protection of Privacy Act ("FOIPPA"). Respondents

should note that in accordance with the provisions of FOIPPA, certain details of this RFP and any executed Contract may be made public, including the Contractor's Name and total Contract price. Respondents should identify with their Proposal any information which is supplied in confidence and therefore should be maintained as confidential by the OBWB.

7.8. Notification and Feedback to Unsuccessful Respondents:

At any time up until or after the execution of a written Contract with the Contractor, the OBWB may notify unsuccessful Respondents in writing that they have not been selected to conclude a Contract. Unsuccessful Respondents may then request a feedback email or telephone call with the OBWB's Purchasing Manager in order to obtain feedback on how their Proposal fared in the evaluation. Such requests for feedback must be made within 30 days of notification of the RFP results to the unsuccessful Respondent. Details of feedback provided will be at the OBWB's sole discretion in order to protect the confidentiality of other Respondents and the OBWB's commercial interest.

7.9. Conflict of Interest:

All Respondents must disclose an actual or potential conflict of interest, as set-out in Appendix A – Certification Form. The OBWB may, at its sole discretion, disqualify any Respondent from this RFP process, if it determines that the Respondent's conduct, situation, relationship (including relationships of the Respondent's employees and OBWB employees) create or could be perceived to create a conflict of interest.

The OBWB may rescind or terminate a Contract entered into if it subsequently determines that the Respondent failed to declare an actual or potential conflict of interest during this RFP process, as required under Appendix A – Certification Form.

7.10. Confidentiality:

All information provided to Respondents by the OBWB as part of this RFP process is the sole property of the OBWB and must not be disclosed further without the written permission of the OBWB.

7.11. No Contract A, No Claims, and Limitation of Damages:

This RFP process is not intended to create and shall not form a legally binding irrevocable bid process, commonly referred to as a 'Contract A' based bid process. For extra clarity, both the Respondent and the OBWB are free to cancel their participation in this RFP process at any time up until the execution of a written Contract for the Services.

Neither the Respondent nor the OBWB shall have the right to make any claims of damages against the other related to this RFP or execution of a Contract as a result of this RFP.

Notwithstanding this Section 7.11, the Respondent agrees that it will not claim any damages, for whatever reason, relating to this RFP process, in excess of an amount equivalent to the reasonable costs incurred by the Respondent in preparing its Proposal, and the Respondent, by submitting its Proposal, waives any claim for loss of profits if no Contract is made with the Respondent.

7.12. [Right to Cancel RFP:](#)

Although the OBWB fully intends to conclude a Contract as a result of this RFP, the OBWB may at its sole discretion, cancel or amend this RFP process at any time without any liability to any Respondent.

7.13. [Governing Law and Trade Agreements:](#)

This RFP is governed by the laws of the Province of British Columbia and any other agreements which exist between the Province of British Columbia and other jurisdictions.

Part C: The Contract



This Part C details the Contract terms and conditions that the OBWB will enter into with the Contractor at the conclusion of the process outlined in Section 6.6 of Part B.

The OBWB and the successful Respondent shall enter into a Contract for the Services using terms and conditions contained in the following pages in this Part C:



Consulting and General Services Contract

CONTRACT./FILE NO: 2018-RFP-01

THIS AGREEMENT DATED FOR REFERENCE THE

PROJECT DESCRIPTION:

BETWEEN:

OKANAGAN BASIN WATER BOARD
1450 KLO Road
Kelowna, BC. V1W 3Z4
Representative: Anna Warwick Sears
Email: anna.warwick.sears@obwb.ca

(the "OBWB", "we", "us", or "our" as applicable)

AND:

<CONTRACTOR NAME>

(the "Contractor", "you", or "your" as applicable)

The OBWB wishes to retain the Contractor to provide the Services specified in Schedule A and, in consideration for the remuneration set out in Schedule B, the Contractor has agreed to provide those Services, on the terms and conditions set out in this Agreement.

The OBWB and the Contractor agree as follows:

ARTICLE 1 - DEFINITIONS

1.01 In this Agreement, unless the context otherwise requires:

- a) **"Business Day"** means a day, other than a Saturday or Sunday, on which OBWB offices are open for normal business in British Columbia;
- b) **"Incorporated Material"** means any material in existence prior to the start of the Term or developed independently of this Agreement, and that is incorporated or embedded in the Produced Material by the Contractor or a Subcontractor;
- c) **"Material"** means the Produced Material and the Received Material;
- d) **"Produced Material"** means records, software and other material, whether complete or not, that, as a result of this Agreement, are produced by the Contractor or a Subcontractor and includes the Incorporated Material;
- e) **"Received Material"** means records, software and other material, whether complete or not, that, as a result of this Agreement, are received by the Contractor or a Subcontractor from the OBWB or any other person;

- f) **"Record"** is the definition of "record" in the *Interpretation Act* and as incorporated into this Agreement and "records" will bear a corresponding meaning;
- g) **"Services"** means the services described in Schedule A;
- h) **"Subcontractor"** means a person described in Section 16.05;
- i) **"Term"** means the term of the Agreement described in Section 3.01 of this Agreement subject to that term ending earlier in accordance with this Agreement; and
- j) **"Unit of Measure"** has the meaning described in Schedule B.

ARTICLE 2 - CONTRACT DOCUMENTS AND MODIFICATIONS

2.01 The attached schedules are applicable to and form part of this Agreement:

Schedule	Title
Schedule 'A'	Services
Schedule 'B'	Fees
Schedule 'C'	Subcontracting Schedule
Schedule 'D'	Insurance
Schedule 'E'	Copyright
Schedule F	Moral rights

2.02 No modification of this Agreement is effective unless it is in writing and signed by, or on behalf of, the parties.

ARTICLE 3 - TERM OF CONTRACT

- 3.01 The Term of this Agreement is from and including XXXXXXXXXX, 2018 to and including XXXXXXXX, 2018 inclusive.
- 3.02 Regardless of the date of execution or delivery of this Agreement, the Contractor must provide the Services during the Term.
- 3.03 Time is of the essence in this Agreement and, without limitation, will remain of the essence after any modification or extension of this Agreement, whether or not expressly restated in the document effecting the modification or extension.

ARTICLE 4 - CONTRACTOR'S OBLIGATIONS

- 4.01 You must provide the Services described in Schedule A (the "Services") in accordance with this Agreement.
- 4.02 Unless the parties otherwise agree in writing, you must supply and pay for all labour, materials, equipment, tools, facilities, and approvals and licences necessary or advisable to perform your obligations under this Agreement, including the license under Section 8.04.
- 4.03 Unless otherwise specified in this Agreement, you must perform the Services to a standard of care, skill, and diligence maintained by persons providing, on a commercial basis, services similar to the Services.
- 4.04 You must provide, instruct, and supervise a sufficient number of qualified personnel to enable timely and proper performance and completion of the Services. All such personnel shall be competent, English literate, efficient and qualified by education, training and experience to carry out the tasks to which each is assigned.
- 4.05 We may from time to time give you reasonable instructions (in writing or otherwise) as to the performance of the Services. You must comply with those instructions but, unless otherwise specified in this Agreement, you may determine the manner in which the instructions are carried out.
- 4.06 If we provide an instruction under Section 4.05 other than in writing, you may request that the instruction be confirmed by us in writing, which request we must comply with as soon as it is reasonably practicable to do so.
- 4.07 Requesting written confirmation of an instruction under Section 4.06 does not relieve you from complying with the instruction at the time the instruction was given.
- 4.08 In the performance of your obligations under this Agreement, you must comply with all applicable laws.

ARTICLE 5 - PAYMENT

- 5.01 If you comply with this Agreement, we must pay you at the rates and times described in Schedule B:
- (a) the Fixed Prices described in that Schedule;
 - (b) the Unit Rates for any extra work which has been authorized and pre-approved in writing by OBWB; and
 - (c) any applicable taxes payable by us under law or agreement with the relevant taxation authorities on the fees and expenses described in paragraphs (i) and (ii).
- We are not obliged to pay you more than the Total Contract Price amount or dollar limit specified in Schedule B on account of fees and expenses.
- 5.02 In order to obtain payment of any fees or expenses, if any, under this Agreement, you must submit written statements of account to us in a form satisfactory to us, but no sooner than the dates referred to in Schedule B.
- 5.03 Without limiting Section 11.01 we may withhold from any payment due to you an amount sufficient to indemnify, in whole or in part, the OBWB and its employees and agents against any liens or other third-party claims that have arisen or could arise in connection with the provision of the Services. An amount withheld under this section must be promptly paid by the OBWB to you upon the basis for withholding the amount having been fully resolved to the satisfaction of the OBWB.
- 5.04 Our obligation to pay money to you is subject to the Financial Administration Act, which makes that obligation subject to an appropriation being available in the fiscal year of the OBWB during which payment becomes due.
- 5.05 Unless otherwise specified in this Agreement, all references to money are to Canadian dollars.
- 5.06 If you are not a resident in Canada, you acknowledge that we may be required by law to withhold income tax from the fees described in Schedule B and then to remit that tax to the Receiver General of Canada on your behalf.
- 5.07 You must not, in relation to performing your obligations under this Agreement, commit or purport to commit us to pay any money except as may be expressly provided for in this Agreement.
- 5.08 You must:
- a) apply for, and use reasonable efforts to obtain, any available refund, credit, rebate or remission of federal, provincial or other tax or duty imposed on you as a result of this Agreement that the OBWB has paid or reimbursed to you or agreed to pay or reimburse to you under this Agreement; and
 - b) immediately on receiving, or being credited with, any amount applied for under paragraph (a) remit that amount to us.

ARTICLE 6 - REPRESENTATIONS AND WARRANTIES

- 6.01 As at the date this Agreement is executed and delivered by, or on behalf of, the parties, you represent and warrant to us as follows:
- (a) except to the extent you have previously disclosed otherwise in writing to us:
 - (i) all information, statements, documents and reports furnished or submitted by you to us in connection with this Agreement (including as part of any competitive process resulting in this Agreement being entered into) are in all material respects true and correct,
 - (ii) you have sufficient trained staff, facilities, materials, appropriate equipment and approved subcontractual agreements in place and available to enable you to fully perform the Services, and
 - (iii) you hold all permits, licenses, approvals and statutory authorities issued by any government or government agency that are necessary for the performance of your obligations under this Agreement; and
 - (b) if the Contractor is not an individual:
 - (i) you have the power and capacity to enter into this Agreement and to observe, perform and comply with the terms of this Agreement and all necessary corporate or other proceedings have been taken and done to authorize the execution and delivery of this Agreement by, or on behalf of, you, and
 - (ii) this Agreement has been legally and properly executed by, or on behalf of, you and is legally binding upon and enforceable against you in accordance with its terms except as enforcement may be limited by bankruptcy, insolvency or other laws affecting the rights of creditors generally and except that equitable remedies may be granted only in the discretion of a court of competent jurisdiction.

ARTICLE 7 - PRIVACY, SECURITY AND CONFIDENTIALITY

- 7.01 You must comply with the Privacy Protection Schedule if attached to this Agreement.
- 7.02 You must make reasonable security arrangements to protect the Material from unauthorized access, collection, use, disclosure, alteration, or disposal and comply with the Security Schedule, if attached.
- 7.03 You must treat as confidential all information in the Material and all other information accessed or obtained by you or a Subcontractor (whether verbally, electronically or otherwise) as a result of this Agreement, and not permit its disclosure or use without our prior written consent except:
- 7.03.1 as required to perform your obligations under this Agreement or to comply with applicable laws;
 - 7.03.2 if it is information that is generally known to the public other than as a result of a breach of this Agreement; or
 - 7.03.3 if it is information in any Incorporated Material.
- 7.04 Any public announcement relating to this Agreement will be arranged by us and, if such consultation is reasonably practicable, after consultation with you.
- 7.05 You must not, without our prior written approval, refer for promotional purposes to the OBWB being your customer or the OBWB having entered into this Agreement.

ARTICLE 8 - MATERIAL AND INTELLECTUAL PROPERTY

- 8.01 If you receive a request for access to any of the Material from a person other than us, and this Agreement does not require or authorize you to provide that access, you must promptly advise the person to make the request to us.
- 8.02 We exclusively own all property rights in the Material that are not intellectual property rights. Any equipment property we may provide to you or a subcontractor is our exclusive property. You must deliver any Material or equipment property to us immediately following expiration of this Agreement, or sooner upon our request, in the same condition it was supplied to you, excepting always loss or damage attributable to reasonable wear or tear.
- 8.03 The Province of BC will exclusively own all intellectual property rights, including copyright:
- 8.03.1 in Received Material that you receive from us, and
 - 8.03.2 in Produced Material, other than any Incorporated Material.
- Upon our request, you must deliver to us documents satisfactory to us that irrevocably waive in our favour any moral rights that you (or your employees) or a Subcontractor (or its employees) may have in the Produced Material and confirm the vesting in the Province of the copyright in the Produced Material, other than any Incorporated Material.
- 8.04 Upon any Incorporated Material being embedded or incorporated in the Produced Material and to the extent that it remains so embedded or incorporated, you grant us:
- 8.04.1 a non-exclusive, perpetual, irrevocable, royalty-free, worldwide license to use, reproduce, modify, and distribute that Incorporated Material; and
 - 8.04.2 the right to sublicense to third-parties the right to use, reproduce, modify and distribute that Incorporated Material.

ARTICLE 9 - RECORDS AND REPORTS

- 9.01 You must, upon our request, fully inform us of all work done by you or a Subcontractor in connection with providing the Services.
- 9.02 If Schedule B provides for you to be paid fees at a Unit of Measure rate or for you to be paid or reimbursed for expenses, you must maintain time records and books of account, invoices, receipts and vouchers of expenses in support of those payments, in form and content satisfactory to us. Unless otherwise specified in this Agreement, the Contractor must retain such documents for a period of not less than seven years after this Agreement ends.

ARTICLE 10 - AUDIT

- 10.01 In addition to any other rights of inspection the OBWB may have under statute or otherwise, we may at any reasonable time and on reasonable notice to you, enter on your premises to inspect and, at our discretion, copy

any of the Material and you must permit, and provide reasonable assistance to, the exercise by us of our rights under this section.

ARTICLE 11 - INDEMNITY AND INSURANCE

- 11.01 You must indemnify and save harmless the OBWB and its employees and agents from any losses, claims, damages, actions, causes of action, costs and expenses that the OBWB or any of its employees or agents may sustain, incur, suffer or be put to at any time either before or after this Agreement ends, including any claim of infringement of third-party intellectual property rights, 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 by you or your agents, employees, officers, directors or Subcontractors in connection with this Agreement (each a "Loss"), excepting always liability arising out of the independent acts or omissions of the OBWB and its employees and agents.
- 11.02 You must comply with the insurance requirements in Schedule D, if attached, as those terms may be modified from time to time in accordance with our directions.
- 11.03 Without limiting the generality of Section 4.08, you must comply with, and must ensure that any Subcontractors comply with, all applicable occupational health and safety laws in relation to the performance of your obligations under this Agreement, including the *Workers Compensation Act* in British Columbia or similar laws in other jurisdictions.
- 11.04 At your own expense, and where required under *Workers Compensation Act* in British Columbia, you must obtain WorkSafe BC coverage for yourself, all workers and any shareholders, directors, partners or other individuals employed or engaged in the performance of the Services and you shall ensure all approved Subcontractors obtain WorkSafe BC Coverage.
- 11.05 If you are an individual or a partnership of individuals and do not have the benefit of mandatory workers compensation coverage under the *Workers Compensation Act* in British Columbia, you must apply for and maintain Personal Optional Protection under the *Workers Compensation Act*.
- 11.06 You are responsible for all fines, levies, penalties and assessments made or imposed under the *Workers Compensation Act* and regulations relating in any way to the Services.
- 11.07 Upon our request you must provide us with evidence of your compliance with Sections 11.02, 11.04 and 11.05.

ARTICLE 12 - FORCE MAJEURE

- 12.01 An "Event of Force Majeure" means a natural disaster, fire, flood, storm, epidemic or power failure, war (declared and undeclared), insurrection or act of terrorism or piracy, strike (including illegal work stoppage or slowdown) or lockout, or a freight embargo if such event prevents a party from performing its obligations in accordance with this Agreement and is beyond the reasonable control of that party.
- 12.02 An "Affected Party" means a party prevented from performing its obligations in accordance with this Agreement by an Event of Force Majeure.
- 12.03 An Affected Party is not liable to the other party for any failure or delay in the performance of the Affected Party's obligations under this Agreement resulting from an Event of Force Majeure and any time periods for the performance of such obligations are automatically extended for the duration of the Event of Force Majeure provided that the Affected Party complies with the requirements of Section 12.04.
- 12.04 An Affected Party must promptly notify the other party in writing upon the occurrence of the Event of Force Majeure and make all reasonable efforts to prevent, control or limit the effect of the Event of Force Majeure so as to resume compliance with the Affected Party's obligations under this Agreement as soon as possible.

ARTICLE 13 - NON-COMPLIANCE WITH AGREEMENT CONDITIONS

- 13.01 An "Event of Default" means any of the following:
- (a) your failure to perform any of your obligations under this Agreement, or
 - (b) any representation or warranty made by you in this Agreement is untrue or incorrect, or
 - (c) an Insolvency Event, which means any of the following;
 - (i) an order is made, a resolution is passed or a petition is filed, for your liquidation or winding up,

- (ii) you commit an act of bankruptcy, make an assignment for the benefit of your creditors or otherwise acknowledge your insolvency,
 - (iii) a bankruptcy petition is filed or presented against you or a proposal under the *Bankruptcy and Insolvency Act* (Canada) is made by you,
 - (iv) a compromise or arrangement is proposed in respect of you under the *Companies' Creditors Arrangement Act* (Canada),
 - (v) a receiver or receiver-manager is appointed for any of your property, or
 - (vi) you cease, in our reasonable opinion, to carry on business as a going concern.
- 13.02 On the happening of an Event of Default, or at any time thereafter, we may, at our option, elect to do any one or more of the following:
- 13.02.1 by written notice to you, require that the Event of Default be remedied within a time period specified in the notice;
 - 13.02.2 pursue any remedy or take any other action available to us at law or in equity; or
 - 13.02.3 by written notice to you, terminate this Agreement with immediate effect or on a future date specified in the notice, subject to the expiration of any time period specified under Section 13.02(a).
- 13.03 No failure or delay on our part to exercise our rights in relation to an Event of Default will constitute a waiver by us of such rights.
- 13.04 If you become aware that an Event of Default has occurred or anticipates that an Event of Default is likely to occur, you must promptly notify us of the particulars of the Event of Default or anticipated Event of Default. A notice under this section as to the occurrence of an Event of Default must also specify the steps you propose to take to address, or prevent recurrence of, the Event of Default. A notice under this section as to an anticipated Event of Default must specify the steps you propose to take to prevent the occurrence of the anticipated Event of Default.

ARTICLE 14 - TERMINATION

- 14.01 In addition to our right to terminate this Agreement under Section 13.02(c) on the happening of an Event of Default, we may terminate this Agreement for any reason by giving at least 5 days' written notice of termination to you.
- 14.02 Unless Schedule B otherwise provides, if we terminate this Agreement under Section 14.01:
- (a) we must, within 30 days of such termination, pay you any unpaid portion of the fees and expenses described in Schedule B which corresponds with the portion of the Services that was completed to our satisfaction before termination of this Agreement; and
 - (b) you must, within 30 days of such termination, repay to us any paid portion of the fees and expenses described in Schedule B which corresponds with the portion of the Services that we have notified you in writing was not completed to our satisfaction before termination of this Agreement.
- 14.03 The payment by us of the amount described in Section 14.02(a) discharges us from all liability to make payments to the Contractor under this Agreement.

ARTICLE 15 - DISPUTE RESOLUTION

- 15.01 In the event of any dispute between the parties arising out of or in connection with this Agreement, the following dispute resolution process will apply unless the parties otherwise agree in writing:
- (a) the parties must initially attempt to resolve the dispute through collaborative negotiation;
 - (b) if the dispute is not resolved through collaborative negotiation within 15 Business Days of the dispute arising, the parties must then attempt to resolve the dispute through mediation under the rules of the British Columbia Mediator Roster Society; and
 - (c) if the dispute is not resolved through mediation within 30 Business Days of the commencement of mediation, the dispute must be referred to and finally resolved by arbitration under the *Commercial Arbitration Act*.

- 15.02 Unless the parties otherwise agree in writing, an arbitration or mediation under Section 15.01 will be held in Kelowna, British Columbia.
- 15.03 Unless the parties otherwise agree in writing or, in the case of an arbitration, the arbitrator otherwise orders, the parties must share equally the costs of a mediation or arbitration under Section 15.01 other than those costs relating to the production of expert evidence or representation by counsel.

ARTICLE 16 - GENERAL

- 16.01 Any notice or document contemplated by this Agreement, to be effective, must be in writing and delivered as follows:
- (a) hand delivered to the party or the specified party representative, in which case it will be deemed to be received on the day of its delivery; or
 - (b) by prepaid post to the party's address specified on the first page of this Agreement, in which case if mailed during any period when normal postal services prevail, it will be deemed to be received on the fifth Business Day after its mailing; or
 - (c) delivered by courier service to the party's address specified on the first page of this Agreement, in which case it will be deemed received on the fifth Business Day after collection by the courier service; or
 - (d) by facsimile or electronic transmission to the specified facsimile number or Email address on the first page of this Agreement, in which case it will be deemed to be received on the day of transmittal unless transmitted after the normal business hours of the addressee or on a day that is not a Business Day, in which cases it will be deemed to be received on the next following Business Day.
- 16.02 Either party may from time to time give notice to the other party of a substitute address, Email address, or fax number, which from the date such notice is given will supersede for purposes of Section 16.01 any previous address, Email address, or fax number specified for the party giving the notice.
- 16.03 You must not assign your rights under this Agreement without our prior written consent.
- 16.04 You must not subcontract any of your obligations under this Agreement without our prior written consent, excepting persons listed in Schedule A.
- 16.05 No subcontract, whether consented to or not, relieves you from any obligations under this Agreement. You must comply with the Subcontracting Schedule if attached to this Agreement. You must ensure that any person retained by you or any person retained by a person retained by you fully complies with this Agreement in performing the subcontracted obligations.
- 16.06 We may, for reasonable cause, object to the use of a proposed Subcontractor and require you to retain another qualified subcontractor.
- 16.07 A waiver of any term or breach of this Agreement is effective only if it is in writing and signed by, or on behalf of, the waiving party and is not a waiver of any other term or breach.
- 16.08 This Agreement and any modification of it constitute the entire Agreement between the parties as to performance of the Services.
- 16.09 Sections 4.08, 5.01 to 5.04, 5.07, 5.08, 7.01 to 7.05, 8.01 to 8.04, 9.01, 9.02, 10.01, 11.01, 11.02, 11.07, 12.01 to 12.04, 13.02, 13.03, 14.02, 14.03, 15.01 to 15.03, 16.01, 16.02, 16.09, and 16.11, any accrued but unpaid payment obligations, and any other sections of this Agreement (including schedules) which, by their terms or nature, are intended to survive the completion of the Services or termination of this Agreement, will continue in force indefinitely, even after this Agreement ends.
- 16.10 The schedules to this Agreement (including any appendices or other documents attached to, or incorporated by reference into, those schedules) are part of this Agreement.
- 16.11 In relation to the performance of your obligations under this Agreement, you are an independent contractor and not our:
- 16.11.1 employee or partner; or
 - 16.11.2 agent except as may be expressly provided for in this Agreement.
- You must not act or purport to act contrary to this section.

- 16.12 You must not do anything that would result in personnel hired or used by you or a Subcontractor in relation to providing the Services being considered our employees.
- 16.13 If one or more individuals are identified in the schedules as "Key Personnel", you must cause those individuals to perform the Services on your behalf and not remove or replace them, without our prior written approval. Any approved replacement is at your expense.
- 16.14 We must make available to you all information in our possession which we consider pertinent to the performance of the Services.
- 16.15 You must not provide any services to any person in circumstances which, in our reasonable opinion, could give rise to a conflict of interest between your duties to that person and your duties to us under this Agreement.
- 16.16 If there is a conflict among provisions of this Agreement, a provision in the body of this Agreement will prevail over any conflicting provision in, attached to, or incorporated by reference into a schedule, unless that conflicting provision expressly states otherwise and a provision in a schedule will prevail over any conflicting provision in a document attached to or incorporated by reference into a schedule, unless the schedule expressly states otherwise.
- 16.17 This Agreement does not operate as a permit, license, approval or other statutory authority which you may be required to obtain from the Province of BC or any of its agencies in order to provide the Services. Nothing in this Agreement is to be construed as interfering with, or fettering in any manner, the exercise by the Province or its agencies of any statutory, prerogative, executive or legislative power or duty.
- 16.18 If any provision of this Agreement or the application of it to any person or circumstance is invalid or unenforceable to any extent, the remainder of this Agreement and the application of such provision to any other person or circumstance will not be affected or impaired and will be valid and enforceable to the extent permitted by law.
- 16.19 Each party must perform the acts, execute and deliver the writings, and give the assurances as may be reasonably necessary to give full effect to this Agreement.
- 16.20 This Agreement is governed by, and is to be interpreted and construed in accordance with, the laws applicable in British Columbia.

ARTICLE 17 - INTERPRETATION

- 17.01 In this Agreement:
 - (a) "we", "us", and "our" refer to the OBWB alone and never refer to the combination of the Contractor and the OBWB;
 - (b) the Contractor and the OBWB are referred to as "the parties" and each of them as a "party";
 - (c) "includes" and "including" are not intended to be limiting;
 - (d) unless the context otherwise requires, references to sections by number are to sections of this Agreement;
 - (e) "attached" means attached to this Agreement when used in relation to a schedule;
 - (f) unless otherwise specified, a reference to a statute by name means the statute of British Columbia by that name, as amended or replaced from time to time;
 - (g) the headings have been inserted for convenience of reference only and are not intended to describe, enlarge or restrict the scope or meaning of this Agreement or any provision of it;
 - (h) "person" includes an individual, partnership, corporation or legal entity of any nature; and
 - (i) unless the context otherwise requires, words expressed in the singular include the plural and *vice versa*.

ARTICLE 18 - EXECUTION AND DELIVERY

18.01 This Agreement may be entered into by a separate copy of this Agreement being executed by, or on behalf of, each party and that executed copy being delivered to the other party by a method provided for in Section 16.01 or any other method agreed to by the parties.

The Parties have executed this Agreement as follows:

SIGNED AND DELIVERED on behalf of the Okanagan Basin Water Board by an authorized representative of the OBWB	SIGNED AND DELIVERED by or on behalf of the Contractor (or by an authorized signatory of the Contractor if a corporation)
(Authorized Signatory)	(Contractor or Authorized Signatory)
(PRINTED NAME)	(PRINTED NAME of Contractor)
Dated this ____ day of _____, 20____	Dated this ____ day of _____, 20____

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SCHEDULE "A" – The Services

This Schedule will be completed upon execution of the Contract.

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LIDAR and Aerial Image Acquisition for the Okanagan Valley Watershed

SCHEDULE "B" – FEES

This Schedule will be completed upon execution of the Contract.

SCHEDULE "C" – SUBCONTRACTING SCHEDULE

ARTICLE 1 GENERAL PROVISIONS

1.01 If the Contractor engages a Subcontractor, the Contractor shall not be relieved from the subcontracted obligations or any obligations under this Agreement.

1.02 The actions of any Subcontractor engaged to carry out any of the work shall be deemed to be the actions of the Contractor.

1.03 If the Contractor engages a Subcontractor to carry out any of the work, any provision in this Agreement requiring the Contractor to meet an obligation associated with the Subcontractor's work shall be deemed to mean the Contractor shall ensure the Subcontractor meets that obligation.

1.04 The OBWB may, for a reasonable cause, object to the use of an intended Subcontractor and require the Contractor to employ another qualified Subcontractor.

1.05 The Contractor acknowledges and agrees that the Subcontractor or any of the Subcontractors' directors, officers or members is not an Associated Person of the Contractor as that term is referenced in the tendering documents and as defined in the federal *Income Tax Act* or related Canada Revenue Agency's interpretation bulletins.

1.06 Nothing in this Agreement will create any direct or indirect contractual relationship between the OBWB and any Subcontractor or impose any obligation or liability upon the OBWB to any Subcontractor.

1.07 The Contractor must ensure all approved Subcontractors obtain WorkSafe BC coverage and comply with all conditions of the *Workers Compensation Act* and regulations thereunder and where general Worksafe BC coverage is not obtainable, the Contractor will ensure all Subcontractors obtain Personal Optional Protection under the *Workers' compensation Act*, and upon request must provide us with proof of such compliance.

1.08 The Contractor shall ensure that all its Subcontractors performing work under this Agreement carry insurance in the form and limits as specified in the insurance schedule, and upon request must provide us with proof of such compliance.

ARTICLE 2 INSPECTION BY THE CONTRACTOR

2.01 The Contractor is not entitled to subcontract any obligations with respect to inspection to the Subcontractor whose work is being inspected. Any inspection must be done by the Contractor, or by a different Subcontractor approved by the OBWB.

2.02 The Contractor shall inspect the work performed and/or each Payment Area or part thereof for the purposes of determining the quality of work.

2.03 The Contractor shall inspect the work as it is required at RFP, Part B – Requirements.

2.04 The Contractor shall provide the OBWB with a written statement of the work quality achieved, supported by inspection data and a map of the work area and/or Payment Area (or portions thereof).

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The OBWB may examine such portion or portions of the work performed and/or Payment Areas as it considers appropriate to verify the quality of the work.

2.05 If the OBWB determines the inspection carried out by the Contractor does not correctly indicate the quality of the work, the OBWB may require the Contractor to carry out additional inspection(s).

ARTICLE 3 APPROVED SUBCONTRACTORS

3.01 The Contractor acknowledges and agrees that only the following are approved by the OBWB to be Subcontractors:

- *To be completed upon execution of the Contract.*

3.02 There shall be no substitution for the Subcontractor(s) listed above without the prior consent of the OBWB.

SCHEDULE “D” – INSURANCE REQUIREMENTS

- a. Without restricting the generality of the indemnification provisions contained in the Agreement, the Contractor shall, at its own expense, provide and maintain, during the term of this Agreement, the following insurance coverage as fully specified in Paragraph 11 and any additional insurance which it is required by law to carry or which it considers necessary to cover risks not otherwise covered by insurance specified in this Schedule in its sole discretion.
- b. All such insurance described herein must be primary and not require the sharing of any loss by any insurer of the OBWB.
- c. Where a warranty period is required by the OBWB under this Agreement, the Contractor shall ensure that Products and Completed Operations coverage, as applicable, shall be in force for the duration of the warranty period.
- d. Insurance shall be placed with Insurers licensed to underwrite such insurance in Canada and in forms and amounts acceptable to the OBWB. All such insurance shall be at no expense to the OBWB. If the OBWB requires additional Insurance Coverage to be obtained by the Contractor, the additional expense of such additional insurance shall be borne by the OBWB.
- e. Notwithstanding Paragraph 6, the Contractor shall, prior to the commencement of services and before any payments are made under this Agreement, file with the Ministry Representative evidence of insurance coverage in the form of a completed Province of British Columbia Certificate of Insurance (Form FIN 173). When requested by the OBWB, the Contractor shall provide certified copies of required insurance policies.
- f. ICBC’s Confirmation of Automobile Insurance Coverage, Form APV 47 shall be used as satisfactory evidence of Automobile Liability Insurance.
- g. The insurance policies, except for ICBC Automobile Liability Insurance, shall provide that the insurance shall not be cancelled or materially changed so as to affect the coverage provided under the Agreement, without the Insurer giving at least thirty (30) days prior written notice to the OBWB. Material change with respect to Professional Liability Insurance does not require the Insurer to give thirty (30) days prior written notice to the OBWB.
- h. Failure to provide the required insurance documentation shall result in termination of this Agreement.
- i. If the insurance policies expire prior to the end of the Agreement Term, the Contractor shall provide the ministry evidence of renewal or new policy meeting the requirements of the expired insurance in the form of a completed Province of British Columbia Certificate of Insurance and ICBC’s Form APV 47, if applicable, at least ten (10) days prior to the expiry date of the policies listed in this Schedule.

j. The Contractor shall ensure that all its subcontractors performing Services under this Agreement carry insurance in the form and limits specified in Paragraph 11.

k. The following forms of insurance and specified minimum limits are required:

- Commercial General Liability

Commercial General Liability insurance in an amount not less than \$2 million inclusive per occurrence against bodily injury, personal injury, and property damage and including liability assumed under the Agreement.

Such policy(s) of insurance shall include, but not be limited to:

- i) Products and Completed Operations Liability;
- ii) Owner's and Contractor's Protective Liability;
- iii) Contingent Employer's Liability;
- iv) Blanket Written Contractual Liability;
- v) Personal Injury Liability;
- vi) Non-Owned Automobile Liability;
- vii) Cross Liability;
- viii) Employees as Additional Insureds;
- a) Broad Form Property Damage;

and where such further risk exists:

b) Forest Fire Fighting Expense Coverage in the amount of:

☐ \$1 million (activity taking place during fire season)

☐ \$500,000 (activity taking place outside of fire season)

☒ Not applicable (activity not taking place in forested areas or where the activity does not include potential of sparks from welders, chainsaws, or hot exhaust, etc.)

c) Sudden and Accidental Pollution endorsement on the Commercial General liability insurance policy with a limit of liability not less than the amount indicated below per occurrence insuring against bodily injury, property damage and cleanup expenses arising from new pollution conditions arising from the Contractor's performance of the Agreement, or if such endorsement is unavailable on the Commercial General Liability insurance policy, a Sudden and Accidental Pollution insurance policy insuring against same and with same limits of liability indicated below, and this insurance shall include the OBWB as an additional insured as stated below:

LIDAR and Aerial Image Acquisition for the Okanagan Valley Watershed

- ☐ \$250,000
- ☐ \$500,000
- ☐ \$1 million
- ☒ Not applicable

The OBWB is to be added as an "Additional Insured" under this policy, as follows: "The Okanagan Basin Water Board and any of its employees, servants or agents".

- Automobile Liability

Where any licensed vehicles owned, leased, rented, or used in the performance of this Agreement, Automobile Liability insurance in an amount not less than \$2 million inclusive per occurrence must be provided for any such vehicle.

- Aviation Liability

Where any aircraft (including helicopters) operated or used in the performance of this Agreement, the Contractor will obtain and maintain, or will cause to be obtained and maintained and will provide evidence to the OBWB of a Subcontractor's compliance with this requirement, Aviation Liability Insurance insuring against bodily injury, property damage, and passenger liability, in an amount not less than the limits of liability imposed by any *Canadian Aviation Regulation* and in any event not less than a per occurrence combined single limit of:

1. \$3 million for aircraft up to 5 passenger seats, or
2. \$3 million plus \$1 million for each additional passenger seat for aircraft up to 10 passenger seats, or
3. \$10 million for aircraft over 10 passenger seats.

Such insurance shall include a cross liability clause.

The OBWB is to be added as an "Additional Insured" under this policy, as follows: "The Okanagan Basin Water Board and any of its employees, servants or agents".

Where applicable, such policy will also include coverage for aerial drift or misapplication of fertilizers or herbicide chemicals in an amount not less than \$50,000, per occurrence.

Where this Agreement is for air transportation services only, the requirement for Commercial General Liability insurance may be waived at the discretion of the OBWB.

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SCHEDULE "E" Acknowledgment of Assignment of Copyright

I, _____, of _____,

(Name of Individual)

(Name of Firm/Company)

(the Contractor), for good and valuable consideration, payable pursuant to an Agreement dated _____ with the Okanagan Basin Water Board (the OBWB), do hereby acknowledge, confirm, and perfect the assignment to the Province of British Columbia all of my rights in the Copyright in the Produced Material described in the Agreement referred to above.

Executed at _____, this _____ day of _____, 20____.

SIGNED AND DELIVERED by or on behalf of the Contractor
(or by an authorized signatory of the Contractor if a corporation)

(Signature of Contractor or Authorized Signatory)

(Printed Name of Contractor or Authorized Signatory)

SCHEDULE "F" – Waiver of Moral Rights

I, _____, (check one) ☐ employee

(Name of Individual) ☐ sole proprietor

☐ contractor

☐ subcontractor

☐ subcontractor's employee

of

(Name of Firm/Company)

and an author of the Produced Material, as that term is defined in the Contract in consideration of my employment, hereby waive, in favor of the Province of British Columbia, all my moral rights established under the *Copyright Act*, as amended from time to time, in the Produced Material. I further agree not to institute legal proceedings against the Okanagan Basin Water Board or the Province of British Columbia, or their servants, agents or employees with respect to these moral rights.

Executed at _____, this _____ day of _____, 20__.

SIGNED AND DELIVERED by or on behalf of
the individual waiving their moral rights:

(Signature of Individual Waiving Moral Rights)

(Printed Name of Individual Waiving Moral Rights)

Part D: Submission Forms



This Part D contains forms detailing the information that should be included in a Proposal, as detailed under Section 6 of Part B.

Part D Contents:

This Part D contains the following forms:

- Appendix A – Certification Form
- Appendix B – Pricing Form
- Appendix C – Methodology Form
- Appendix D – Project Manager and Team Form
- Appendix E – Schedule Form
- Appendix F – Receipt Confirmation Form

APPENDIX A – CERTIFICATION FORM



Respondents must complete all details requested in this Appendix A – Certification Form and include this completed form in the Proposal, as detailed under Section 6.1 (Mandatory Criteria) of Part B. No changes to this form must be made, except for completing the requested information in the spaces provided.

1. Respondent Details:

Full Legal Name of Respondent:	
Other “DBA” Names the Respondent Uses:	
Registered Address:	
Respondent Contact Person Name & Title:	
Contact Person Phone No.:	
Contact Person Email:	

2. Certification & Acknowledgement of RFP Process:

By signing this Appendix A – Certification Form, we the Respondent, certify and acknowledge the following:

- a. We have carefully read and examined this RFP document, including all Parts and Appendices, and have conducted such other investigations as were prudent and reasonable in preparing this Proposal. We are able to provide the Services detailed in Part A for the pricing submitted in this Proposal.
- b. We certify that the statements made in this Proposal are true and submitted in good faith.
- c. We acknowledge that the RFP process will be governed by the terms and conditions set out in Part B, and it is explicitly understood that this RFP process does not form a legally binding irrevocable bid process, commonly referred to as a ‘Contract A’ based bid process, and further that both the Respondent and the OBWB are free to cancel their participation in this RFP process at any time up until the execution of a written Contract.
- d. We certify that in relation to this RFP process, we have not engaged in any conduct which would constitute a conflict of interest and we understand that a conflict of interest would include the following situations:
 - i. The Respondent has an unfair advantage or engages in conduct which may give it an unfair advantage;
 - ii. The Respondent has had access to confidential information of the OBWB which is not available to other Respondents to this RFP.

- iii. The Respondent has influence over an employee of the OBWB who is a decision-maker involved in this RFP process, which could reasonably be perceived as giving the Respondent an unfair advantage or preferential treatment.

3. Confirmation of Addenda Received:

We confirm receipt of the following addenda that were issued by the OBWB up until the Closing Date and Time:

Addendum #	Issued On Date:

4. Certification Signature:

The Respondent hereby certifies that the above statements are true and that the individual signing below has the authority to bind the Respondent:

Signature of Respondent Representative

Name of Respondent Representative

Title of Respondent Representative

Date

APPENDIX B – PRICING FORM



Respondents must complete the requested pricing in all tables in this Appendix B – Pricing Form and include the completed form in the Proposal, as detailed under Section 6.2 (Scored Criteria) of Part B. No changes to this form must be made, except for completing the requested information in the spaces provided.

Note: Respondents are reminded that OBWB intends to award a Contract based on either PLAN ONE or PLAN TWO, but not both. Respondents must submit pricing for both PLANS.

1. Pricing Basis:

Pricing entered into the tables of section 2 below, shall be on the following basis:

- a. All Prices are in Canadian funds, are inclusive of all applicable duties and taxes including the PST, but not the GST which shall be itemized separately where indicated.
- b. Prices are all-inclusive and include for all labour, materials, supplies, travel, overheads and profit, insurance, mobilization/demobilization, and all other costs and fees necessary to deliver the Services outlined in Part A.
- c. Prices shall be firm for the entire Contract term. The OBWB will not pay any expenses incurred by the contractor in relation to the performance of the Services (i.e., weather days or additional fees).

2. Fixed Prices:

For completion of all work for each PLAN (PLAN ONE and PLAN TWO), as described in Part A, the following remuneration shall apply:

a. Fixed Prices for PLAN ONE:

The following fixed prices shall apply for PLAN ONE, in summary: LOT A to be flown for LiDAR March 2018, at low-water conditions; LOT B and LOT C to be flown for LiDAR and digital imagery July - Sept 2018; digital imagery for LOT A will be flown at the same time as for LOTs B and C.

Lot	Product	Approx.Area / Length	Special Requirements	Fixed Price \$	Comments
LOT A of PLAN 1	Low Water Level Foreshore	605km 900 km²			
	Acquisition - Lidar		At lowest water levels March 2018/Snow free	\$	As per Provincial Specifications NDMP Resolution = 12 ppm2
	Acquisition – Imagery (7.5cm GSD, RGBiR 8 bit)		June-Sept 2018 / Snow free	\$	As per Provincial specification Production of 10cm orthoimagery
	Lidar Point Cloud (classified)			\$	If separate from Acquisition costs
	Lidar – breaklines & shoreline delineation			\$	
	Lidar - DEM – (1m gridded/water flattened)			\$	
	Lidar - Contours (1m contours)		Optional	\$	See specific areas / SHP files
	Ortho imagery		Optional	\$	See specific areas / SHP files
	Merged - Building Footprints (vector)		Optional	\$	See specific areas / SHP files
	Merged – DSM Spectrally Encoded		Optional	\$	See specific areas / SHP files
PLAN ONE, LOT A TOTAL CONTRACT PRICE				\$	
GST				\$	
LOT B of PLAN 1	Valley Bottom / Floodplain / Areas of Interest	500 km²			Additional area to LOT A priority
	Acquisition – Lidar		July – Sept 2018/Snow free	\$	Must ensure data can be aligned with LOT A data
	Acquisition – Imagery (7.5cm GSD, RGBiR 8 bit)			\$	As per Provincial specification Production of 10cm orthoimagery
	Lidar Point Cloud (classified)			\$	If separate from Acquisition costs
	Lidar – breaklines & shoreline delineation			\$	
	Lidar - DEM – (1m gridded/water flattened)			\$	
	Lidar - Contours (1m contours)		Optional	\$	See specific areas / SHP files
	Ortho imagery		Optional	\$	See specific areas / SHP files
	Merged - Building Footprints (vector)		Optional	\$	See specific areas / SHP files
	Merged – DSM Spectrally Encoded		Optional	\$	See specific areas / SHP files
PLAN ONE, LOT B TOTAL CONTRACT PRICE				\$	
GST				\$	

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LOT C of PLAN 1	Watershed Remainder	6800 km ²			Complete the Basin / lakes removed
	Acquisition – Lidar		July – Sept /Snow free	\$	Must ensure data can be aligned with LOT A data
	Acquisition – Imagery (7.5cm GSD, RGBiR 8 bit)		June – Sept / Snow free	\$	As per Provincial specification Production of 10cm orthoimagery
	Lidar Point Cloud (classified)			\$	If separate from Acquisition costs
	Lidar – breaklines & shoreline delineation			\$	
	Lidar - DEM (1m gridded/water flattened)			\$	
	Lidar - Contours (1m contours)		Optional	\$	<i>See specific areas / SHP files</i>
	Ortho imagery		Optional	\$	<i>See specific areas / SHP files</i>
	Merged - Building Footprints (vector)		Optional	\$	<i>See specific areas / SHP files</i>
	Merged – DSM Spectrally Encoded		Optional	\$	<i>See specific areas / SHP files</i>
PLAN ONE, LOT C TOTAL CONTRACT PRICE				\$	
GST				\$	

b. Fixed Prices for PLAN TWO:

The following fixed prices shall apply for PLAN TWO, which is summarised as: LOT A and LOT B to be flown for LiDAR (no digital imagery) in October 2018.

Lot	Product	Approximate Area / Length	Special Requirements	Fixed Price \$	Comments
LOT A of PLAN 2	Low Water Level Foreshore	605km 900 km²			
	Acquisition - Lidar		At lowest water levels October 2018	\$	As per Provincial Specifications NDMP Resolution = 12 ppm2
	Lidar Point Cloud (classified)			\$	If separate from Acquisition costs
	Lidar – breaklines & shoreline delineation			\$	
	Lidar - DEM – (1m gridded/water flattened)			\$	
	Lidar - Contours (1m contours)		Optional	\$	See specific areas / SHP files
	Lidar – DSM		Optional	\$	See specific areas / SHP files
PLAN TWO, LOT A TOTAL CONTRACT PRICE				\$	
GST				\$	
LOT B of PLAN 2	Valley Bottom / Floodplain / Areas of Interest	500 km²			Additional area to LOT A priority
	Acquisition – Lidar		At lowest water levels October 2018	\$	Must ensure data can be aligned with LOT A data
	Lidar Point Cloud (classified)			\$	If separate from Acquisition costs
	Lidar – breaklines & shoreline delineation			\$	
	Lidar - DEM – (1m gridded/water flattened)			\$	
	Lidar - Contours (1m contours)		Optional	\$	See specific areas / SHP files
	Lidar - DSM		Optional	\$	See specific areas / SHP files
PLAN TWO, LOT B TOTAL CONTRACT PRICE				\$	
GST				\$	

3. Payment Terms:

4. Acquisition invoices for each Lot (Lot A, Lot B, Lot C) are to be submitted by the end of the Image/LiDAR data acquisition phase. Data submissions need to include raw LiDAR and digital imagery data and supplemental metadata for the amount identified.
5. Data delivery invoices for each Lot (Lot A, Lot B, Lot C) are to be submitted by the end of the production phase. These include all remaining products including classified LiDAR data, final calibration reports, LiDAR metadata, DEM, DSM and orthophotos related products for the amount identified.

Invoices shall be submitted on the last calendar day of each month for Services provided during that month. The OBWB shall pay all undisputed portions of invoices, minus a 15% holdback for each invoice, within 30 calendar days of receipt of invoice.

APPENDIX C – METHODOLOGY FORM



Proposals must include the details requested in this Appendix C – Methodology Form, as detailed under Section 6.2 (Scored Criteria) of Part B.

1. Methodology:

Please provide, on a separate sheet in a format of your choosing, the following details regarding your Methodology to complete the Services. (Note: where the details will differ depending on whether the work is PLAN ONE or PLAN TWO, please identify the differences)

- Detailed description of LIDAR acquisition approach, calibration methodology
- Detailed description of digital frame camera solution including image geo-referencing and/or ground control methodology.
- Describe in detail how QA methodology and QC procedures are to be conducted for the entire project.
- Detailed description of how the following will be addressed:
 - Planning for time-sensitive capturing of low water foreshore areas
 - Identification of re-flights
 - Classification and calibration of LIDAR data
 - How to achieve a ground point design density of 12pts/m², a digital image GSD of 7.5cm, and orthophoto resolution of 10cm.
 - Timely delivery of products
 - How to derive a spectral encoded DSM from LIDAR and imagery data
 - How to create and QA/QC a 1m gridded DEM for the entire area
 - Breakdown of the responsibilities during the various phases of acquisition, raw image, QC and production. Provide name/role list and resumes of personnel involved.
- Explain how administration (progress, planning, etc.), air operations (basing, redeployment, weather checks, etc.), and land operations (maintenance and data handling, etc.) are to be conducted and provide example reporting forms. Note: multi-staging aircraft location is considered as an option and awarded additional evaluation points.
- Alternative proposals that meet the project requirements will be considered.
- Draft of proposed flight lines and ground coverage for all areas to be supplied in PDF and ESRI shape file.
- Illustrate details regarding risk management, mitigation and contingency plan to assure timely delivery
- Information on how hardware and aircraft problems (and remobilisation) and labour shortages will be addressed if the delivery timeline is threatened.
- Provide methodology details for LIDAR/image production.
- Detailed description on how to utilise GPS/INS for geo-referencing.

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- Process to prevent the issues of smears in the ortho-rectified images for cliffs and steep terrain (if applicable).
- Description on the image enhancement process to ensure consistent tonal ranges between sheets and images and the colour balance.
- Detailed description of LIDAR point classification routines and QA / QC methodology.
- Detailed description of DEM processing methodology, accuracy assessments and QA/QC.
- Technical description of hardware and software to be used for planning, GPS/IMU integration, ground control acquisition, calibration (LIDAR and digital camera), stereo modeling, DEM and DSM generation, as well as LIDAR classification.
- Provide details for how the large volume of priority LIDAR point cloud data and digital images will be submitted promptly and progressively.
- Provide references for previous similar projects completed.
- An Online Acquisition Report System (OARS) containing a minimum web map link including login and password information for OBWB and its Agents, the location of the planned photo centres/LIDAR flight lines, provide a visual QA/QC status of the acquired photo centers/LIDAR coverage by:
 - Aerial imagery planned;
 - Aerial imagery acquired aerial image QC accepted;
 - LIDAR ground coverage planned LIDAR data acquired;
 - LIDAR data accepted (overlap, point density and calibration)
- An STC (Supplemental Type Certificate) issued by Transport Canada for the proposed aircraft(s) and camera / LIDAR survey equipment. This should certify that the type design of an aircraft, engine, propeller, appliance or any change/modification to equipment on an aircraft complies with the applicable standards of airworthiness.
- A manufacturer provided full camera calibration report less than 3 years old.
- A statement of aircraft/sensor availability signed by all parties (for subcontracted aircraft/sensor a signature by the subcontracting party is required also).

APPENDIX D – PROJECT MANAGER AND TEAM FORM



Proposals must include the details requested in this Appendix D – Project Manager and Team Form, as detailed under Section 6.2 (Scored Criteria) of Part B.

1. Project Manager & Team:

Please provide, on a separate sheet in a format of your choosing, the following details regarding your Project Manager and Team to complete the Services. (Note: where the details will differ depending on whether the work is PLAN ONE or PLAN TWO, please identify the differences)

a. Project Manager:

Please provide the following for the individual performing this position:

- Description of the reporting structure and responsibilities
- Outline experience resolving project issues
- Outline project liaison and co-ordination experience related to photo acquisition and product creation.
- Provide references of related work (based on last 3 projects)
- Provided details of a designated backup person.
- Provide education details, experience and professional designations.

b. Project Team:

Please provide following for the individuals performing Project Team positions:

- Provide details of individuals
- Provide details of backup for key staff
- List job function (e.g. “Photo Manager” or “Production Supervisor”) and provide resumes for each (maximum 1 page resume).
- Provide educational details and/or professional designations
- Provide references of related work (based on last 3 projects)

APPENDIX E – SCHEDULE FORM



Proposals should include the details requested in this Appendix E – Schedule Form, as detailed under Section 6.2 (Scored Criteria) of Part B.

1. Schedule:

Please provide, on a separate sheet in a format of your choosing, the following details regarding your proposed schedule and timelines to complete the Services. (Note: where the details will differ depending on whether the work is PLAN ONE or PLAN TWO, please identify the differences)

- Realistic timelines, broken down into individual project phases (acquisition, production, QC, delivery).
- Dates shown must meet the schedule and key milestone date requirements detailed in Part A – The Services.
- A detailed explanation of risk management and mitigation on scheduling.

APPENDIX F – RECEIPT CONFIRMATION FORM



To ensure Respondents receive any updates or additional information being made available to prospective bidders, and notification of posted Addenda, please complete the Receipt Confirmation Form and scan/email it per the instructions on the form as soon as possible. No changes to this form must be made, except for completing the requested information in the spaces provided.

REQUEST FOR PROPOSALS No. OBWB 2018-RFP-01

Okanagan Basin Water Board

Closing Date & Time: Proposal must be received before 15:00 (3:00 PM) PST on 22 February, 2018.

To receive further distributed information about this Request for Proposals, please return this form by email as soon as possible to:

James Littley

Okanagan Basin Water Board

Email: james.littley@obwb.ca

COMPANY: _____

ADDRESS: _____

FAX NUMBER (____) _____ PHONE NUMBER (____) _____

CONTACT PERSON: _____

TITLE: _____

EMAIL: _____