



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

**Parks Canada Agency
Agence Parcs Canada**

P.O. Box 900

216 Hawk Avenue

**Banff, Alberta
T1L1 K2**

Request For Proposals

APPEL D'OFFRES

Submit To: Parks Canada Agency

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

Soumission aux: l'Agence Parcs Canada

Nous offrons par la présente de vendre à Sa Majesté la Reine du Chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici et sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaries

Vendor/Firm Name and Address

Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

**Parks Canada Agency
Agence Parcs Canada**

P.O. Box 900

216 Hawk Avenue

**Banff, Alberta
T1L1 K2**

Title-Sujet Vegetation Resource Inventory d'inventaire de sa végétation		Date June 24, 2015								
Solicitation No. - No. de l'invitation 5P421-06-0043/A		Client Ref. No. - No. de réf du client.								
Solicitation Closes L'invitation prend fin - at - à 02:00 PM on - le August 4, 2015		Time Zone Fuseau horaire - Mountain Daylight Saving Time (MDT) / heure avancée des Rocheuses (HAR)								
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>										
Address Inquiries to: - Adresser toute demande de renseignements à : Rose Marino										
Telephone No. - No de téléphone (403 760-1319		Fax No. - No de FAX: (403) 762-5057								
Destination of Goods, Services, and Construction: Destinations des biens, services et construction: See Herein										
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur : Telephone No. - No de telephone: _____ Facsimile No. - N° de télécopieur: _____										
Name and title of person authorized to sign on behalf of the Vendor/Firm Nom et titre de la personne autorisée a signer au nom du fournisseur/ de l'entrepreneur <table border="0" style="width:100%"> <tr> <td style="width:50%; text-align:center">_____</td> <td style="width:50%; text-align:center">_____</td> </tr> <tr> <td style="text-align:center">Name / Nom</td> <td style="text-align:center">Title / Titre</td> </tr> <tr> <td style="width:50%; text-align:center">_____</td> <td style="width:50%; text-align:center">_____</td> </tr> <tr> <td style="text-align:center">Signature</td> <td style="text-align:center">Date</td> </tr> </table>			_____	_____	Name / Nom	Title / Titre	_____	_____	Signature	Date
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PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There is no security requirement applicable to this Contract.

1.2 Statement of Work

The Work to be performed is detailed under Article 6.2 of the resulting contract clauses.

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2014-09-25) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.2 Submission of Bids

Bids must be submitted only to Parks Canada (Parks) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

Due to the nature of the bid solicitation, bids transmitted by facsimile to Parks will not be accepted.

2.2.1 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least fifteen (15) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

2.3 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received

by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;
- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c. C-17, the [Defence Services Pension Continuation Act](#), 1970, c. D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#), 1970, c. R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c. R-11, the [Members of Parliament Retiring Allowances Act](#), R.S. 1985, c. M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c. C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes () No ()**

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes ()No ()**

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than 10 calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.5 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Alberta.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (3 hard copies)

Section II: Financial Bid (1 hard copies)

Section III: Certifications (1 hard copies)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.2 Basis of Selection

1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation; and
 - b. meet all mandatory technical evaluation criteria; and
 - c. obtain the required minimum of 75 percent overall of the points for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 100 points
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

PART 5 – CERTIFICATIONS

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid, but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

5.1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

5.1.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

6.1.1 There is no security requirement applicable to this Contract.

6.2 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A".

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

[2010C](#) (2014-09-25), General Conditions - Services (Medium Complexity) apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Period of the Contract

The Work is to be performed during the period of date of award to March 30, 2018.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Rose Marino
Contracting Officer
Parks Canada

P.O. Box 900
Banff, Alberta T1L 1K2

Telephone: 403-760-1319
Facsimile: 403-762-5057
E-mail address: rose.marino@pc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Project Authority

To Be Announced

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative

Name: _____
Title: _____
Telephone: ____ ____ _____
Facsimile: ____ ____ _____
E-mail address: _____

6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act](#) (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2012-2](#) of the Treasury Board Secretariat of Canada.

6.7 Basis of Payment

6.7.1 Progress Payments

1. Canada will make progress payments in accordance with the payment provisions of the Contract, no more than once a month, for cost incurred in the performance of the Work, up to 90 percent of the amount claimed and approved by Canada if:
 - a. an accurate and complete claim for payment using form [PWGSC-TPSGC 1111](#), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
 - b. the amount claimed is in accordance with the basis of payment;
 - c. the total amount for all progress payments paid by Canada does not exceed 90% percent of the total amount to be paid under the Contract;
 - d. all certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives.
2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all work required under the

- Contract if the Work has been accepted by Canada and a final claim for the payment is submitted
3. Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the rights to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

6.8 Invoicing Instructions

1. The Contractor must submit a claim for payment using form [PWGSC-TPSGC 1111](#), Claim for Progress Payment.
Each claim must show:
 - a. all information required on form [PWGSC-TPSGC 1111](#);
 - b. all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
 - c. the description and value of the milestone claimed as detailed in the Contract.
2. Applicable Taxes, must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.
3. The Contractor must prepare and certify one original and two (2) copies of the claim on form [PWGSC-TPSGC 1111](#), and forward it to the Project Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.
The Project Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.
4. The Contractor must not submit claims until all work identified in the claim is completed.

6.9 Certifications

6.9.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

6.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Alberta.

6.11 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions 2010C (2014-09-25), General Conditions - Services (Medium Complexity) apply to and form part of the Contract);
- (c) Annex A, Statement of Work;
- (e) the Contractor's bid dated _____ (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award: “, as clarified on _____” or “, as amended on _____” and insert date(s) of clarification(s) or amendment(s)*)

ANNEX "A"

STATEMENT OF WORK

Banff National Park historically has had no vegetation inventory. Fire and habitat planning have been done from an Ecological Land Classification, satellite imagery and airphotos.

Species at risk in the park include white bark and limber pine. There are projects underway studying the reintroduction of bison and caribou. Accurate vegetation mapping is a critical piece of delimitating critical habitat for these species.

Banff National Park requires a contractor to undertake a Vegetation Resources Inventory (VRI) photo interpretation and digital map production project of specified areas covering Banff Park and an additional buffer of 20km along the east boundary. Colour 30cm GSD, digital images flown in 2014 will be provided for softcopy interpretation. Infra-red bands will be available to assist with delineation. All deliverables including maps are to be provided in digital form.

The objectives of this project include:

- Create a Vegetation Resources Inventory polygon delineation and attribute estimation in the project area 1 107 417 ha (98 BCGS maps – approximately 70.38 full map equivalents.)
- Other items as described in the example Schedule A, and conditions of tender.

The Contractor will assume overall responsibility for carrying out all stages of the VRI photo interpretation and ensure that all the required deliverables are submitted to Banff National Park in the formats and timeframes required by VRI procedures and this contract document. This includes progressive data submission for all stages of the project for final deliverables. Traditional softcopy delineation and attribution will be performed on this project. Use of methods that automatically delineate, attribute or predict attributes will not be permitted.

The major stages of this project include:

- Delineation
- Data Source Transfer
- Field Calibration
- Integration of Results Data
- Attribute Estimation

98 maps (approximately 70.38 Full Map Equivalents based on 15,735 ha/FME) will be interpreted in this project.

Minimum polygon sizes will be as according to the VRI photo interpretation standards.

Areas and species of special interest are:

- White Bark Pine
- Limber Pine
- Bison habitat along Panther and Dormer River drainages

The above items will be addressed by the contractor in field work planning and increased diligence in delineation and attribution.

Approximately 629,400 hectares (number of mapsheets listed in the delivery schedule below) will be deliniated in Fiscal year 15/16 (completion Feb 29, 2016), with the remainder attributed in the following fiscal years 16/17 and 27/18 (completion January 31, 2018).

Area Statistics

The following is a summary of the area to be interpreted from LandsAT landcover mapping.

	Area (ha)	Sub Area (ha)
Total Landbase	1,107,417	
Total Area to be Interpreted	1,107,417	
Forested		411,514
Shrub		6,162
Herbs		68,738
Non Productive land (ice, rock water)		561,140

Field Calibration

Field sampling will be done using a combination of air calls, ground calls and observations. The emphasis is accessing a polygon and quickly collecting required measured and estimated values for each tree layer and non-treed vegetation. The number of each type of plots will be determined on a map sheet by map sheet basis after consideration of access, potential helicopter landing sites and homogeneity of forest cover types. Air calls and ground calls will be organized into both logical flight plans and ground plans to maximize the effort spent in the field. Ideally, an even distribution of field sampling would occur of all cover types, but this subject to access, production and economic constraints. The photo interpreters will work with the project manager to ensure the field program meets the need of the inventory for that region.

- The Contractor will perform the field calibration on the selected areas,
- All full map equivalents (FME) will be field calibrated with a minimum of five 1 point ground calls (as dictated by the procedures) and a minimum of ten air calls.
- Field Calibration plans will be submitted to Parks Canada for review and approval prior to field work commencing. The fieldwork plan must be

submitted to Parks Canada at least two weeks prior to the expected date of commencement of fieldwork, in order to allow for review, and to allow for the time required for possible changes to the plan. Contingency samples will be submitted as part of the plan. **Note that a calibration plan must be submitted, one prior to the field sampling season as defined below in the Delivery Schedule. All required permits will be issued within 2 weeks of approval of the sampling plan.**

Air Calls

Air calls are visual estimates of attributes defined in the Vegetation Resources Inventory. Air calls are typically completed at a polygon level. The field personnel performing the air calls need to be at a low-level flying height or heights to observe and accurately estimate the polygon attributes. Field personnel should also record observations along flight lines to assist in calibration whenever possible. The field personnel should also calibrate themselves by landing periodically throughout the day to confirm air calls and/or establish ground plots or additional data

Ground Calls.

Ground calls provide actual measurements for photo interpreters at a site level to assist in interpretation. The primary purpose for ground calls is to gather data on age, height and density for each tree layer.

Access to ground calls is a major consideration due to the remoteness of the project area. Ground call measurements and estimates should emphasize obtaining the information quickly for the treed layers and non-treed vegetation. Ground calls should be placed within the polygon, i.e. the plot area should be representative of the polygon. Ground call locations will avoid stand boundaries or non-representative areas or disturbances within the polygon. Care will be taken to minimize air access ground calls near known campgrounds, lodges, high use hiking trails and sensitive wildlife areas. The project area is not well roaded, air access ground calls will be required. Quad access will not be permitted in Banff National Park.

Observations

Observations are gathered along flight lines for air calls or traverse lines for ground plots. These are quick notes and estimates for stand attributes. These are very helpful for the photo interpreters as it provides linkages across the landscape that note changes or homogeneity across the landscape. When observational data and information is used to help interpret a polygon, it must be recorded in the database for the vegetation inventory.

Ground Call Specifications

Ground call specifications are provided to ensure that ground plot data are gathered in a consistent manner so that it can be used for interpretation. Plots do not require the set up or flagging of tie points of flagging to a plot location. A GPS

location indicating where the sample trees were recorded is required.

Field Tally

The following information is required to be collected at each ground plot location. If it assists in airphoto interpretation, more information may be gathered at each ground plot location.

- Plot number
- Date
- Coordinates (GPS location)
- Fixed Area Plot Radius (m) (for stem density estimates)
- Overstory Field Call (Species Composition)
- Understory Field Call (Species Composition)
- Crown Closure by layer (to the nearest 5%)
- Ground Layer Field Call (Percent cover of shrub, non-shrub)
- Stand Structure (single layer, multi-layer, complex layer)
- Slope Position
- Stand Disturbance and Disturbance Extent
- Stems / ha (as per classes)
- Age at Breast Height (1.3m) or other height if necessary
- Total age (based on counted age plus age correction factor)
- Soil Moisture Regime
- Soil Nutrient Regime
- Height of Trees in each Layer when applicable to the nearest metre
- Wetland identifiers (when in wetland)
- Notes

Age

Age will most often be taken by an increment bore at breast height for trees greater than 15 cm at Diameter at Breast Height (DBH). A different core position can be used and recorded if there is an incidence of rot at DBH. Trees smaller than 15 cm DBH can be sampled by either coring close to the bottom of the tree or cutting the tree to obtain a cookie.

If it is difficult to count rings in the field and be accurate with counting. The age cores or cookies will be collected and brought back from the field to count. This will ensure accurate ages are obtained. Cores can be stored in either properly labeled straws or core holders.

A minimum of two ages per tree layer are required from co-dominant and dominant trees of the leading species of the stand layer. Complex stands may require more than two age counts. Ages will be counted to the nearest 1 year. The cores may be required by Parks Canada at the completion of the project.

Sample Tree Selection for Heights and Ages

Height samples will be measured to the nearest 0.1 m. Trees that are measured for height will not have forks or broken tops. Height sample trees will also be the trees used for age sampling. A minimum two trees per layer should be measured.

Trees measured in single-layered stands should be dominant and co-dominant trees. Trees measured in multiple-layered stands will have trees measured in the top layer and lower layer that are representative of the stand. Complex stands should have a height measured for a variety of trees that are representative of the complex stand to obtain an average height, minimum height and maximum height.

Stand Density Estimates

Stand density is an estimate of the total stems per hectare represented by the dominant, co-dominant and upper intermediates of each tree layer. To assist with determining an estimate, a minimum of three fixed area plots per stand must be established. More plots will be required for variable stands. Fixed area plot size must be the same for all plots used in the estimate for the stand. Plot size should be selected to reflect the openness or denseness of a stand; i.e. a larger plot radius should be chosen for an open stand and a smaller plot can be used for a dense stand. Selection of plot locations should be random in nature and reasonably separated from each other. Only include trees for the layer they represent. Stand Density Estimate plots do not require a GPS location or ribboning.

Photo Interpretation

The Contractor will perform the delineation and attribute estimation of selected areas.

- Softcopy interpretation will be undertaken on 2014 30cm GSD, digital images. Infra-red bands will be used to assist with delineation and dead determination and will be made available in tif image format.
- Photogrammetric heights will be taken where suitable to assist the photo interpreter in determining heights
- Delineation and Attribute Estimation will be conducted as per the latest *Vegetation Resource Inventory Photo Interpretation Procedures*. Delineation should appear “smooth”,

Supporting Materials

Parks Canada will provide the following:

- Digital stereo aerial photos
- Base Map layers where available (Boundaries, roads, trails, streams, and water bodies)
- Ecological Land classification for the extent of Banff National Park
- Model, Surface and Image Files
- Flight line maps (digital format)
- Digital orthoimages
- Known fire boundaries and other applicable fire history layers

The contractor will need to review source material with Parks Canada to ensure that it is complete (no obvious missing information).

Digital Map Production

The Contractor will adhere to the most current version of the *VRIMS Personal Geodatabase Structure and Use and VRIMS Vegetation Cover Polygon Validation Rules* published by the Forest Analysis and Inventory Branch at the onset of the contract.

Deliverables

The contractor must deliver data in agreed upon batch sizes on an ongoing schedule as determined in the pre-work. As soon as attribute estimation is completed for a given batch of maps, it must be delivered to Parks Canada. The following products will be delivered to Parks Canada as per the delivery schedule outlined below.

- Field calibration plan as per the Calibration procedures. The plan must be delivered to the project authority at least 2 weeks prior to the anticipated fieldwork start date, and approved by the project authority prior to commencement of field work.
- Field copies of flight plan and ground call maps, photos and orthophotos, with locations pinpricked and labeled.
- Complete and validated digital attribute descriptions linked to the vegetation inventory base maps in the VRIMS Personal Geodatabase format;
- Complete VRI photo interpretation data files in the required format at the time of contract signing (or updated version as agreed to by all parties);
- Hardcopy tally sheets or digital equivalent for each ground and air calibration point;
- Digital summary for all calibration points (including historical data sources);
- ESRI shape file with final locations of air and ground calibration points.

All maps will be broken down into stages and expected costs per stage, as specified in the schedule of payments.

Delivery Schedule

Proposed Delivery schedule by FME submitted to Parks Canada for approval within 3 weeks of award of the contract.

A delivery schedule of all maps delivered at or near the deadlines shown below will not be acceptable. The area can be divided into a maximum of two units of work and delivered over two work seasons that occur back-to-back. There can not be a period without progress on the complete set of deliverables in-between the two units of work. The target number of FME's must be specified for each unit of work.

Stand Delineation (does not need to be attributed) for first unit of

work – Feb 29, 2016

**Fieldwork for first 40 Full Map Equivalents (FME) - October 3, 2016,
Field Calibration sheets and plot data for first 40 FME – October 17,
2016**

**Final Attribution and data source transfer for first 40 FME - Feb 17,
2017**

**Complete “cleaned” delineation (including results linework
integration and generalization) for 40 FME -October 1, 2017**

Stand Delineation for remaining mapsheets, Feb 28 2017

Fieldwork for remaining mapsheets - October 8th 2017

**Field calibration summary sheets and plot data for remaining plots –
October 22, 2017**

**Final Attribution and data source transfer for remaining mapsheets –
January 29 2018**

**Complete “cleaned” delineation (including results linework
integration and generalization) for remaining – March 30, 2018.**

Annex B

Basis of Selection

3. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation; and
 - b. meet all mandatory technical evaluation criteria; and
 - c. obtain the required minimum of 75 percent overall of the points for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 100 points
4. Bids not meeting (a) or (b) or (c) will be declared non-responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

Evaluation Criteria

Each proposal will be assessed based solely on the information provided in the Bidder's proposal, by a team of Parks Canada staff, in accordance with the criteria and point system identified below.

It is the Bidder's responsibility to ensure that the contents of their proposal provides adequate documentation and/or evidence for evaluation in accordance with the criteria identified below.

1 Qualifications and Experience (45 Points)

Demonstrated ability to:

1. Perform stand delineation from aerial photography, including processing photos from tiff format
2. Plan and execute ground control plots, including access by road, foot and helicopter
3. Perform stand attribution in the British Columbia Vegetation Resource Inventory format integrating information from the ground plots and aerial photography

Provide: 1) your resume of experience and 2) a copy of two recently (within the last five years) completed projects that show examples of your work in creating British Columbia Vegetation Resource Inventory vegetation inventories.

- a) Experience in stand delineation from aerial photography

Meets or exceeds qualifications:	15 points
Limited experience:	10 points
Does not meet:	0 points

- b) Experience in planning and executing ground plots

Meets or exceeds qualifications:	15 points
Limited experience:	10 points
Does not meet:	0 points

- c) Experience in stand attribution to VRI standards
- | | |
|----------------------------------|-----------|
| Meets or exceeds qualifications: | 15 points |
| Limited experience: | 10 points |
| Does not meet: | 0 points |

2 References (10 Points)

Provide two (2) references with contact information for whom relevant work was completed within the past three (3) years.

- | | |
|----------------------------------|-----------|
| Meets or exceeds qualifications: | 10 points |
| Limited experience: | 5 points |
| Does not meet: | 0 points |

3 Approach and Methodology (45 points)

The contractor 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.

Demonstrate your understanding of the scope of work being requested by providing descriptions of:

Suggested approach and methodology to create the final inventory deliverables

- | | |
|--------------------------------|-----------------|
| Meets or exceeds requirements: | 25 points |
| Limited description: | 10 to 20 points |
| Does not meet: | 0 points |

Familiarity with the standards and practices of the British Columbia Vegetation Resource Inventory process

- | | |
|-------------------------------|----------------|
| Meets or exceeds familiarity: | 15 points |
| Limited familiarity: | 5 to 10 points |
| Not familiar: | 0 points |

Proposed timeline and work scheduling, with completion by March 31, 2018

- | | |
|--------------------------------|----------|
| Meets or exceeds requirements: | 5 points |
| Does not meet: | 0 points |

Point System Definitions

Limited

Criterion addressed, but not enough information provided and/or technically not acceptable. Less than established minimum.

Meets or Exceeds

Project management approach has complete details on process, schedule controls; planning tools and techniques. Very efficient techniques to be put in place and used to plan, organize, direct and control the project. Correctly identifies risk areas and provides very good mitigation strategies. Timelines are suitable and realistic, and include good understanding of the scope of work.