

WHISTLER OLYMPIC PARK LEASE

BETWEEN:

**HER MAJESTY THE QUEEN IN RIGHT OF THE
PROVINCE OF BRITISH COLUMBIA**, represented by
the minister responsible for the *Land Act*, Parliament
Buildings, Victoria, British Columbia

AND:

**VANCOUVER ORGANIZING COMMITTEE FOR
THE 2010 OLYMPIC AND PARALYMPIC WINTER
GAMES**, a Federally incorporated society, extra
provincially registered in British Columbia under
No. 0047023

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THIS AGREEMENT is dated for reference and made with effect September 1, 2008 and is made under the *Land Act*.

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA, represented by the minister responsible for the *Land Act*, Parliament Buildings, Victoria, British Columbia

(the "Province")

AND:

VANCOUVER ORGANIZING COMMITTEE FOR THE 2010 OLYMPIC AND PARALYMPIC WINTER GAMES, a Federally incorporated society, extra provincially registered in British Columbia under No. 0047023

(the "Lessee" or "VANOC")

The Parties agree as follows:

ARTICLE 1 – INTERPRETATION

1.1 Definitions

In this Agreement,

"**Additional Rent**" means all amounts payable by the Lessee pursuant to the provisions hereof, whether to the Province or to third parties, other than rent set forth at section 3.1;

"**Agreement**" means this Lease;

"**BCEAA**" means the *British Columbia Environmental Assessment Act*;

"**BCEAA Assessment Report**" means the Assessment Report and Certification pursuant to the BCEAA referred to at section 2 of Schedule C;

"**COC**" means the Canadian Olympic Committee;

"**Collateral Agreements**" means those agreements listed in Schedule B;

"**Commencement Date**" means September 1, 2008;

"**disposition**" has the meaning given to it in the *Land Act* and includes a licence of occupation;

"**Environmental Management Plan**" means the Plan referred to at section 2 of Schedule C;

"**Exclusive Use Period**" means January 10, 2010 to May 31, 2010, inclusive;

"Financial Year" means the financial year of the Lessee for the purposes of this Agreement ending, in the case of VANOC as initial Lessee, on July 31 in each year during the Term;

"Games" means the 2010 Olympic and Paralympic Winter Games;

"Governmental Authority" means any local, municipal, regional, provincial or federal government, or any authority created by any of them, having jurisdiction;

"Gross Revenue" means the total gross receipts and receivables of the Lessee and any sublessee or licensee of the Lessee from all sales and business conducted on or originating from the Land or the Whistler Olympic Park, whether from cash or credit (excluding liquor sales revenue) including subsequent recoveries of receivables previously written off, but does not include uncollectible receivables written off by the Lessee in accordance with generally accepted accounting principles;

"Hazardous Substance" means any substance which is hazardous to persons, property or the environment, including without limitation

- (a) waste, as that term is defined in the *Environmental Management Act*;
- (b) radioactive materials;
- (c) toxic substances; and
- (d) any hazardous, toxic or other dangerous substance which is, or at any time in the future becomes, regulated under any law or regulation enacted at any time by a Governmental Authority;

"IOC" means the International Olympic Committee;

"Improvements" includes anything made, constructed, erected, built, altered, repaired or added to, in, on or under the Land, and attached to it or intended to become a part of it, and also includes any clearing, excavating, digging, drilling, tunnelling, filling, grading or ditching of, in, on or under the Land;

"Land" has the meaning given to this term in Schedule A;

"Legacies Society" means Whistler 2010 Sport Legacies Society (formerly called "Whistler Legacies Society") being the society established March 14, 2007 under the *British Columbia Society Act* under No. 0051924 for the purpose, *inter alia*, of operating the Whistler Olympic Park as a legacy facility following the Games;

"Lessee" means VANOC, and includes its successors and permitted assigns;

"Licence of Occupation" means the Licence of Occupation in respect of the Land made between the Province and the Lessee dated for reference April 7, 2005, as amended and extended;

"Master Plan" means the plan referred to at section 1 of Schedule C;

"Olympic Overlay" means those Improvements that are temporary infrastructure installed for the Games, including but not limited to trailers, temporary seating, temporary washrooms and fencing;

"Party" means either of the Province or the Lessee and **"Parties"** means either or both of them, as the context may require;

"Prior Agreements" means the venue agreement for the Development and Operation of the Whistler Olympic Park as set out in the letter dated December 19, 2002 from Vancouver 2010 Bid Corporation and agreed to by the Province, and the Agreement dated November 14, 2002 and titled "Multiparty Agreement for the 2010 Winter Olympic and Paralympic Games" and any amendments to those agreements;

"Realty Taxes" means all taxes, rates, levies, duties, charges and assessments levied or charged, at any time, by any government authority having jurisdiction which relate to the Land, the Improvements or both of them under applicable laws;

"Rent" means the rent set out in Article 3;

"Reports and Plans" means the reports and plans relating to the Whistler Olympic Park referred to on Schedule C, as amended and as approved pursuant to section 4.1(s);

"Security" means the security referred to in section 6.1 or 6.2, as replaced or supplemented in accordance with section 6.5;

"Term" means the period of time set out in section 2.2;

"Whistler Olympic Park" means the improvements, facilities and structures for ski jumping, biathlon, cross country skiing trails incorporating, *inter alia*, shooting range, ski lift, support structures, access roads, recreational trails for year round use, access road, parking facilities, water treatment, waste water treatment plants, grandstands, operational, ticket, timing, guest services, catering, equipment rental, communication services, and maintenance buildings and structures, and all services and utilities related to the foregoing situated on the Land; and

"Whistler Sliding Centre Agreements" means the Provincial Crown land tenures on land in the vicinity of and including District Lot 8103, Group 1, New Westminster District issued from time to time to the Lessee, other than short term tenures required for Olympic Overlay.

1.2 Interpretation

In this Agreement, "person" includes a corporation, firm or association and wherever the singular or masculine form is used in this Agreement it will be construed as the plural or feminine or neuter form, as the case may be, and vice versa where the context or Parties require.

1.3 Captions and Headings

The captions and headings contained in this Agreement are for convenience only and do not define or in any way limit the scope or intent of this Agreement.

1.4 Governing Law

This Agreement will be interpreted according to the laws of the Province of British Columbia.

1.5 Enactments

Where there is a reference to an enactment of the Province of British Columbia or of Canada in this Agreement, that reference will include a reference to every amendment to it, every regulation made under it and any subsequent enactment of like effect and, unless otherwise indicated, all enactments referred to in this Agreement are enactments of the Province of British Columbia.

1.6 Severability

If any section of this Agreement, or any part of a section, is found to be illegal or unenforceable, that section or part of a section, as the case may be, will be considered separate and severable and the remainder of this Agreement will not be affected and this Agreement will be enforceable to the fullest extent permitted by law.

1.7 Schedule

Each schedule to this Agreement is an integral part of this Agreement as if set out at length in the body of this Agreement.

1.8 Entire Agreement

This Agreement has been entered into to give effect to the agreements of the parties relating to the Whistler Olympic Park as set out in the Prior Agreements and, except for the Prior Agreements, and, except as otherwise expressly set out in this Agreement, as of the Commencement Date constitutes the entire agreement between the Parties and no understanding or agreement, oral or otherwise, exists between the Parties with respect to the subject matter of this Agreement. This Agreement may not be modified except by subsequent agreement in writing between the Parties.

1.9 Further Assurances

Each Party will, upon the request of the other, do or cause to be done all lawful acts necessary for the performance of the provisions of this Agreement.

1.10 Survival

All provisions of this Agreement in the Province's favour and all of the Province's rights and remedies, either at law or in equity, will survive the termination of this Agreement.

1.11 Time of the Essence

Time is of the essence of this Agreement.

1.12 Obligation to act Reasonably

Wherever this Agreement provides that an action may be taken, a consent or approval must be obtained or a determination must be made, then the applicable Party will act reasonably in taking such action, deciding whether to provide such consent or approval or making such determination; but where this Agreement states that a Party has sole discretion to take an action, provide a consent or approval or make a determination, there will be no requirement to show reasonableness or to act reasonably in taking that action, providing that consent or approval or making that determination.

1.13 Land Transfer Form Act

Where this Agreement contains the forms of words contained in Column I of Schedule 4 of the *Land Transfer Form Act*, those words will have the same effect and be construed as if the appropriate forms of words contained in Column II of that Schedule were contained in this Agreement, unless the context requires another construction of those words.

ARTICLE 2 – GRANT AND TERM

2.1 Grant and Purposes

On the terms and conditions set out in this Agreement, the Province hereby demises and leases to the Lessee, and the Lessee leases from the Province, the Land so that it may be used as a controlled recreation area in accordance with the Master Plan for the following purposes:

- (a) construction, repair, maintenance and replacement of the Whistler Olympic Park together with such other permanent or temporary facilities, including Olympic Overlay, buildings, structures, improvements, services and utilities which may, from time to time, including during the Games, be required or desirable in connection with the operation of the Whistler Olympic Park or any events held on the Land to ensure the long-term economic viability of the Whistler Olympic Park and to enhance the experience of the athletes, visitors, guests and members of the public who use or visit the Whistler Olympic Park or attend any events held at the Whistler Olympic Park;
- (b) operation of the Whistler Olympic Park to ensure that all commitments and requirements made in connection with hosting the Games are fulfilled including the technical and operational requirements of the ski federation and the biathlon union and the various test events and training obligations;

- (c) operation of the Whistler Olympic Park for World Cup, CanAm, International Ski Federation (FIS) and the International Biathlon Union (IBU) events and other similar or replacement local, national or international competitions and other events or races;
- (d) operation of the Whistler Olympic Park for team training and sport development including use by amateur sports groups for purposes that include use by developing and high performance athletes;
- (e) operation of the Whistler Olympic Park for tourist, visitor and recreational activities; and
- (f) operation of the Whistler Olympic Park, including related commercial and retail businesses and operations, festivals, fairs, events, activities and concerts and related parking to ensure the long-term economic viability of the Whistler Olympic Park as a legacy facility from the hosting of the Games.

2.2 Term

The term of this Agreement commences on the Commencement Date and terminates on the 29th anniversary of that date, or such earlier date provided for in this Agreement.

2.3 Application for Replacement Tenure

Provided the Lessee is not in default hereunder, the Lessee may, not later than 120 days before the fifteenth anniversary of the Commencement Date, request a replacement tenure of the Land for a term of 29 years commencing on the fifteenth anniversary of the Commencement Date on substantially the terms of this Agreement. If, following such notice, the Parties have, each in their sole discretion, settled and executed the replacement tenure which commences on the fifteenth anniversary of the Commencement Date, such replacement tenure will, on the terms thereof, replace this Agreement, provided however, that the Parties shall not be released from their obligations hereunder up to such fifteenth anniversary, and provided further that this section 2.3 shall not be contained within such replacement tenure. For greater certainty, neither Party shall be under any express or implied obligation to negotiate or enter into a replacement tenure, and unless and until they do enter into a replacement tenure, this Agreement shall continue in full force and effect for the balance of the Term, notwithstanding any request by the Lessee for a replacement tenure.

ARTICLE 3 – RENT

3.1 Rent

The Lessee covenants and agrees to pay to the Province without set-off, abatement or deduction:

- (a) no rent for and during the Exclusive Use Period other than Additional Rent as set out herein;

- (b) for the periods beginning on the Commencement Date until January 9, 2010 and from June 1, 2010 until the second anniversary of the Commencement Date, the sum of \$1,000, all of which is payable on the later of the Commencement Date or the date of execution hereof; and
- (c) for each subsequent year during the remainder of the Term, the greater of the following amounts as annual minimum rent:
 - (i) \$500; or
 - (ii) an amount equal to 2% of the aggregate Gross Revenue calculated in respect of the most recent Financial Year ending prior to the year for which rent is being determined.

3.2 Payment of Rent

The minimum amount payable under section 3.1(c)(i) shall be paid in advance on the second anniversary of the Commencement Date and thereafter on each anniversary of that date.

3.3 Statement of Gross Revenue

The Lessee shall keep proper and sufficient books and records of all sales of merchandise and services effected by it and by any sublessee or licensee of the Lessee and all business done on or originating from the Land or the Whistler Olympic Park. Within 90 days after the end of each Financial Year which occurs in whole or in part, after the 2nd year of the Term, the Lessee shall deliver to the Province a detailed statement of Gross Revenue for that Financial Year prepared by the Lessee and certified by a licenced chartered accountant or certified general accountant, together with the payment, if any, required under section 3.1(c)(ii).

3.4 Right to Audit

The Province shall have the right to inspect and take copies of and cause an audit to be taken by an independent auditor of the books and records of the Lessee and any sublessee or licensee of the Lessee pertaining to Gross Revenue, upon reasonable notice and at reasonable times at the Province's cost. If such independent audit shows the detailed Statement of Gross Revenue submitted by the Lessee to be understated by 5% or more, the Lessee shall pay the Province's audit costs and in any other case the Province shall be responsible for the Province's audit costs.

3.5 Notice of Change of Financial Year

The Lessee shall give the Province notice of any change to its Financial Year.

3.6 Length of Financial Year

No Financial Year shall be longer than 12 months.

ARTICLE 4 – COVENANTS, REPRESENTATIONS AND WARRANTIES

4.1 Lessee's Covenants

The Lessee covenants and agrees to:

- (a) Pay Rent – pay, when due:
 - (i) the Rent to the Province at the address set out in Article 11;
 - (ii) the Realty Taxes; and
 - (iii) all charges for electricity, gas, water and other utilities supplied to the Land whether by the Province or by third parties;
- (b) Deliver Evidence of Payment – deliver to the Province, immediately upon demand, receipts or other evidence of the payment of Realty Taxes and all other Additional Rent;
- (c) Comply with Laws – observe, abide by and comply with:
 - (i) all applicable laws, bylaws, orders, directions, ordinances and regulations of any Governmental Authority having jurisdiction in any way affecting the Lessee's use or occupation of the Land or Improvements; and
 - (ii) the provisions of this Agreement;
- (d) Keep Safe, Clean and Sanitary – in respect of the use of the Land by the Lessee or by anyone permitted by the Lessee to use the Land, keep the Land and the Improvements in a safe, clean and sanitary condition satisfactory to the Province, and at the Province's written request, rectify any failure to comply with such covenant by making the Land and the Improvements safe, clean and sanitary;
- (e) Waste and Nuisance – not commit any willful or voluntary waste, spoil or destruction on the Land or do anything on the Land that may be or become a nuisance to an owner or occupier of land in the vicinity of the Land;
- (f) Maintain and Repair – at its own cost and expense maintain and repair the Whistler Olympic Park and any improvements, fixtures and attachments on the Land in good order and repair during the Term, and replace same in a manner as a prudent owner would do;
- (g) Covenant to Operate – use and occupy the Land only in accordance with and for the purposes set out in section 2.1 and for greater certainty the Lessee shall ensure the Whistler Olympic Park will be operated in accordance with the approved Master Plan throughout the Term on a full time and on-going basis for:

- (i) amateur sports groups, for purposes that include use by developing and high performance athletes with priority of access for high performance athletes who will be training and competing prior to and following the Games; and
 - (ii) the general public for recreational activities;
- (h) Construction of Improvements – not construct, place or affix, any Improvement on or to the Land except as necessary for the purposes set out in section 2.1 and identified within the Master Plan approved by the Province. All construction will be in accordance with the Environmental Management Plan and at the sole cost and expense of the Lessee;
- (i) Archaeological Material – take all reasonable precautions to avoid disturbing or damaging any archaeological material found on or under the Land and, upon discovering any archaeological material on or under the Land, immediately notify the ministry responsible for administering the *Heritage Conservation Act*;
- (j) Pay Accounts and Expenses – pay all accounts and expenses as they become due for labour or services performed on, or materials supplied to, the Land except for money that the Lessee is required to hold back under the *Builders Lien Act*;
- (k) Builders Liens – if any claim of lien over the Land is made under the *Builders Lien Act*, immediately take all steps necessary to have the lien discharged, unless the claim of lien is being contested in good faith by the Lessee and the Lessee has taken the steps necessary to ensure that the claim of lien will not subject the Land or any interest of the Lessee under this Agreement to sale or forfeiture and, unless the lien is discharged and extinguished both from the Land and otherwise under the provisions of the *Builders Lien Act*, the Lessee shall defend any action or other proceeding against the Lessee alleging a lien against the Land, any interest of the Lessee in the Land, any improvement in the Land, or any material delivered to the Land, or any other interest or property of the Province of any kind, and the Lessee shall indemnify the Province for any liability of the Province under the *Builders Lien Act* in connection with the Land, and for the Province's costs, including fees of solicitors and other advisors, in defence of any action or proceeding alleging such liability, and the amount of such liability and costs will be payable to the Province immediately upon demand;
- (l) Timber – not cut or remove timber on or from the Land without:
 - (i) the Province's prior written consent, except for the purposes set out in section 2.1 where no consent shall be required; and
 - (ii) being granted the right under the *Forest Act* to harvest Crown timber on the Land;
- (m) Construct Fences – at the Province's written request and at the Lessee's expense, construct fences in the locations on the Land and to the standards required by the Province within the time specified by it;

- (n) Soil Disturbance – if any soil is disturbed by the Lessee as a result of its construction or maintenance of the Improvements, at its expense, restore the surface of the Land to a condition satisfactory to the Province;
- (o) Survey of Improvements – at the Province's request and at the Lessee's expense, have a British Columbia Land Surveyor conduct a survey or provide alternate information that is acceptable to the Province that shows the location of all buildings and other structures on the Land within one year of the Commencement Date and upon completion of any other structures erected on the Land after the Commencement Date;
- (p) Province's Right of Inspection – permit the Province or its authorized representatives to enter on the Land at any time to inspect the Land and the Improvements, provided that the Province takes reasonable steps to minimize any disruption to the Lessee's operations and provided further that, during the portion of the Exclusive Use Period during which a security lockdown is imposed by law enforcement authorities, comply with applicable security access requirements;
- (q) Indemnify – indemnify and save the Province and its servants, employees and agents harmless against all claims, actions, causes of action, losses, damages, costs and liabilities, including fees of solicitors and other professional advisors, arising out of either or both of:
 - (i) the Lessee's breach, violation or non-performance of a provision of this Agreement; and
 - (ii) any personal injury, bodily injury (including death) or property damage occurring or happening on the Land, suffered by any person including trespassers, arising out of the construction, operation, existence and use of the Whistler Olympic Park,

and the amount of all such losses, damages, costs and liabilities will be payable to the Province immediately upon demand;

- (r) Surrender Upon Termination – on the termination or surrender of this Agreement:
 - (i) peaceably quit and deliver to the Province possession of the Land and, subject to sections 4.1(r)(ii) and (iii), the Improvements in a safe, clean and sanitary condition and to the standard of repair required of the Lessee under this Agreement;
 - (ii) within 180 days, remove from the Land any Improvement the Lessee wants to remove, if the Improvement was placed on or made to the Land by the Lessee, is in the nature of a tenant's fixture normally removable by tenants and is not part of a building or part of the Land, and repair any damage to the Land caused by such removal; and

- (iii) within one year, remove from the Land any Improvement that the Province, not later than 60 days following any termination or surrender, directs the Lessee to remove,

and all of the Lessee's right, interest and estate in the Land will be absolutely forfeited to the Province, and to the extent necessary, this covenant will survive the termination of this Agreement;

(s) Compliance with Reports and Plans

- (i) observe and comply with the terms, commitments, covenants, promises and agreements contained in any of the Reports and Plans, all of which are hereby incorporated as covenants and agreements of the Lessee to the Province under this Agreement;
- (ii) complete and submit after the Exclusive Use Period to the Province for its approval any such Reports and Plans which are designated on Schedule C as not having been approved by the Province, and make any such revisions thereto as may be reasonably required by the Province in order to approve such Reports and Plans; and
- (iii) not make any other or further amendments thereto without the Province's consent.

For the purpose of this Agreement, the Province will sign and date the Reports and Plans approved by it pursuant to this section and keep all of them on file as the approved reference versions of such Reports and Plans;

- (t) Collateral Agreements – observe and perform all of the Lessee's covenants and agreements contained in each of the Collateral Agreements and keep and maintain such agreements in good standing throughout the Term; and
- (u) Removal of Olympic Overlay – forthwith after the Exclusive Use Period remove the Olympic Overlay from the Land (except any part thereof intended for the legacy needs of the Legacies Society) and, subject thereto, restore the Land to the condition it was in prior to construction or installation of the Olympic Overlay, unless otherwise consented to by the Province.

4.2 No Breach by Third Party

The Lessee will not permit any person over whom it has authority to demand compliance to do anything which it is restricted from doing under section 4.1.

4.3 Quiet Enjoyment

Subject to the terms hereof and the exceptions and reservations herein, the Province will provide the Lessee with quiet enjoyment of the Land.

4.4 Incorporation, Capacity and Authority

The Lessee represents and warrants that it has been incorporated or registered and exists as a non-profit corporation in good standing under the laws of Canada, as extra-provincially registered in British Columbia and that it has the corporate power, capacity and authority to enter into this Agreement and to carry out its obligations under this Agreement, all of which have been authorized by all necessary corporate proceedings.

ARTICLE 5 – LIMITATIONS AND ACKNOWLEDGMENTS

5.1 Limitation on Province Obligations

The Lessee acknowledges and agrees with the Province that:

- (a) Access and Services – the Province is under no obligation to provide access or services to the Land or to maintain or improve existing access roads;
- (b) Parking – the Province is under no obligation to provide parking and the Lessee will provide any parking it requires on the Land;
- (c) Subsisting Dispositions and Exceptions and Reservations – this Agreement is subject to:
 - (i) all subsisting dispositions and subsisting grants to or rights of any person made or acquired under the *Coal Act*, *Forest Act*, *Mineral Tenure Act*, *Petroleum and Natural Gas Act*, *Range Act*, *Wildlife Act* or *Water Act*, or any extension or renewal of the same, whether or not the Lessee has actual notice of them;
 - (ii) statutory right of way granted or to be granted in favour of Bell Mobility Inc., Crown land file number 2410128; and
 - (iii) the exceptions and reservations of interests, rights, privileges and titles referred to in section 50 of the *Land Act*;
- (d) Indemnity Regarding Prior Dispositions – without limiting section 4.1(q), the Lessee must indemnify and save the Province and its servants, employees and agents harmless from and against all claims, actions, causes of action, losses, damages, costs and liabilities, including fees of solicitors and other professional advisors, arising out of any conflict between the Lessee's rights under this Agreement and the rights of any person under a subsisting disposition or under a subsisting grant to or right of any person made or acquired under the *Coal Act*, *Forest Act*, *Mineral Tenure Act*, *Petroleum and Natural Gas Act*, *Range Act*, *Wildlife Act* or *Water Act* (or any prior or subsequent enactment of the Province of British Columbia of like effect), or any extension or renewal of the same, whether or not the Lessee has actual notice of them, and the amount of all such losses, damages, costs and liabilities will be payable to the Province immediately upon demand;
- (e) Release of Province Regarding Subsisting Dispositions – the Lessee releases the Province from all claims, actions, causes of action, suits, debts and demands that it now

has or may at any time in the future have against the Province arising out of any conflict between its rights under this Agreement and the rights of any person under a subsisting disposition or under a subsisting grant to or right made or acquired under the enactments referred to in section 5.1(c), and the Lessee acknowledges that this Agreement and its rights under this Agreement are subject to those grants and rights referred to in section 5.1(c) whether or not it has actual notice of them;

- (f) Province May Make Other Dispositions – with the Lessee's prior consent the Province may make other dispositions of or over the Land, or any part of it, to a person, including a Crown agency or ministry, and, upon such consent being given the Lessee will, if required by the Province in the case of a disposition by way of easement, right of way or statutory right of way, immediately execute and deliver to the Province such instrument as may be necessary to subordinate its rights under this Agreement to such easement, right of way or statutory right of way;
- (g) Lessee's Consent to Other Dispositions – for the purpose of section 5.1(f), the Lessee will be deemed to have reasonably withheld its consent if a disposition made under that subsection would materially affect the exercise of its rights under this Agreement;
- (h) No Claim for Compensation for Other Dispositions – the Lessee will make no claim for compensation, in damages or otherwise, in respect of a disposition made under section 5.1(f), where such disposition does not materially affect the exercise of its rights under this Agreement;
- (i) Interference – subject to section 5.1(h), all of the Lessee's costs and expenses, direct or indirect, that arise out of any lawful interference with its rights under this Agreement as a result of the exercise or operation of the interests, rights, privileges and titles reserved to the Province in sections 5.1(c) and (f) will be borne solely by the Lessee;
- (j) No Proceedings Due to Interference – the Lessee will not commence or maintain proceedings under section 65 of the *Land Act* in respect of any lawful interference with its rights under this Agreement that arises as a result of the exercise or operation of the interests, rights, privileges and titles described in sections 5.1(c) and (f);
- (k) Interference Not a Breach – any interference with the Lessee's rights under this Agreement as a result of the exercise or operation of the interests, rights, privileges and titles described in sections 5.1(c) and (f) will not constitute a breach of the Province's covenant of quiet enjoyment and the Lessee releases and discharges the Province from all claims for loss or damage arising directly or indirectly out of any such interference;
- (l) Province's Rights Reserved – nothing in this Agreement shall prejudice or affect the Province's rights, powers and remedies in relation to the Lessee, including its heirs, executors, administrators, successors and assigns, or the Land, under any law, bylaw, order or regulation or in equity, all of which rights, powers and remedies may be fully and effectively exercised by the Province as if this Agreement had not been made by the Parties;

- (m) Removal of Improvements – the Lessee will not remove or permit the removal of any Improvement from the Land except as expressly permitted or required under this Agreement or under the Master Plan approved by the Province;
- (n) Lessee's Ownership of Improvements - any Improvements constructed on the Land by the Lessee pursuant to this Agreement or pursuant to the Licence of Occupation will, subject to the terms hereof, remain the property of the Lessee notwithstanding the degree of affixation to the Land;
- (o) Transfer of Ownership of Improvements – any interest the Lessee may have in the Improvements ceases to exist and becomes the Province's property upon termination of this Agreement, except where an Improvement may be removed under section 4.1(r)(ii) or where the Province requires the Lessee to remove an Improvement under section 4.1(r)(iii). In either case, if the Improvement is not removed from the Land within the time period set out in section 4.1(r)(ii) or section 4.1(r)(iii), as applicable, at the Province's election by notice in writing to the Lessee any interest the Lessee may have in that Improvement ceases to exist and becomes the Province's property; and
- (p) Overholding – if, after the termination of this Agreement, the Province permits the Lessee to remain in possession of the Land and accepts money from the Lessee in respect of such possession, a tenancy from year to year only will be created subject to all of the provisions of this Agreement, except as to duration, in the absence of a written agreement to the contrary.

5.2 Acknowledgments

The Lessee acknowledges and agrees that:

- (a) this Agreement has been granted to it on the basis that it accepts the Land on an "as is" basis;
- (b) the Province has not made and the Lessee has not relied upon, any representation or warranty from the Province as to:
 - (i) the suitability of the Land for its use by the Lessee;
 - (ii) the general condition and state of all utilities or other systems on or under or which will serve the Land;
 - (iii) the zoning of the Land and the bylaws of any Governmental Authority which relate to the development, use and occupation of the Land;
 - (iv) the condition of the Land (including surface and groundwater), environmental or otherwise, including the existence, nature or extent of any Hazardous Substance on, under or emanating to or from the Land and on or under any surrounding or neighbouring land and the current and past uses of the Land;

- (v) drainage of and from the Land and drainage of other land onto the Land or the susceptibility of the Land or adjacent land to erosion, flooding, or soil slippage; or
- (vi) the need to take any remedial action in relation to any Hazardous Substance on, under or emanating from the Land,

and that it has been afforded a reasonable opportunity to inspect the Land and to carry out such audits, investigations, tests and surveys as it considers reasonably necessary to ascertain those matters set out in this section 5.2(b); and

- (c) the Lessee shall be solely responsible for all risk associated with use of the Whistler Olympic Park and the Land including without limitation construction, operation, existence and use whether authorized or unauthorized, including by trespassers, of the Whistler Olympic Park and the Province shall have no liability whatsoever in respect of the construction, operation, existence and use of such facility.

ARTICLE 6 – SECURITY AND INSURANCE

6.1 Delivery of Security

On the Commencement Date, the Lessee shall deliver to the Province security in the amount of \$50,000 which will:

- (a) guarantee the performance of its obligations under this Agreement;
- (b) be in the form required by the Province; and
- (c) remain in effect until the Province certifies, in writing, that the Lessee has fully performed its obligations under this Agreement.

6.2 Suspension of Security Obligation

Despite section 6.1, the Lessee's obligations under that section are suspended for so long as it maintains in good standing other security acceptable to the Province to guarantee the performance of its obligations under this Agreement and all other dispositions held by it.

6.3 Use of Security and Replacement of Security

The Province may use the Security for the payment of any costs and expenses incurred by it to perform any of the Lessee's obligations under this Agreement that are not performed by it and, if such event occurs, the Lessee will, within 30 days of that event, deliver further Security to the Province in an amount equal to the amount drawn down by the Province.

6.4 Return of Security

At the end of the Term and after the Province certifies, in writing, that the Lessee has fully performed its obligations under this Agreement, the Province will return to the Lessee the

Security maintained under section 6.1, less all amounts drawn down by the Province under section 6.3.

6.5 Change of Security

The Lessee acknowledges that the Province may, from time to time, notify it to:

- (a) change the form or amount of the Security; and
- (b) provide and maintain another form of Security in replacement of or in addition to the Security posted by it under this Agreement,

and it will, within 60 days of receiving such notice, deliver to the Province written confirmation that the change has been made or the replacement or additional form of Security has been provided by it.

6.6 Insurance

The Lessee must:

- (a) without limiting its obligations or liabilities under this Agreement, at its expense, effect and keep in force during the Term comprehensive/commercial general liability insurance protecting the Province as an additional insured in an amount of not less than \$25,000,000 inclusive per occurrence insuring against liability for personal injury, bodily injury (including death) or property damage, and claims for liability assumed under contract, arising from all accidents or occurrences on the Land or the Improvements;
- (b) on the later of the Commencement Date or the date of execution hereof and immediately upon demand, deliver to the Province a completed "Province of British Columbia Certificate of Insurance" for all insurance required to be maintained by the Lessee under this Agreement;
- (c) ensure that all insurance required to be maintained by it under this Agreement is:
 - (i) placed with insurers licensed in British Columbia;
 - (ii) primary and does not require the sharing of any loss by any insurance of the Province; and
 - (iii) endorsed to provide the Province with 30 days' advance written notice of cancellation or material change; and
- (d) deliver or cause to be delivered to the Province, immediately upon demand, certified copies of all policies of insurance required to be maintained by the Lessee under this Agreement.

6.7 Change of Insurance

The Lessee acknowledges that the Province may, from time to time, notify it to:

- (i) change the amount of insurance set out in section 6.6(a); and
- (ii) provide and maintain another type or types of insurance in replacement of or in addition to the insurance previously required to be maintained by it under this Agreement;

and the Lessee will, within 60 days of receiving such notice, cause the amounts and types to be changed and deliver to the Province a completed "Province of British Columbia Certificate of Insurance" for all insurance then required to be maintained by the Lessee under this Agreement.

6.8 Suspension of Insurance Obligations

Despite sections 6.6(a) to (d) and section 6.7, the Lessee's obligations under those sections are suspended for so long as the Province in its sole discretion accepts the Lessee's decision to self insure in respect of the matters covered by those sections. If the Province no longer accepts the Lessee's decision to self-insure in respect of the matters covered by sections 6.6(a) to (d) and section 6.7, the Province will provide notice to the Lessee of its decision and the Lessee must, within 30 days of such notice, obtain the insurance described in section 6.6(a).

ARTICLE 7 – ASSIGNMENT

7.1 Assignment to Legacies Society

The Lessee covenants and agrees that it will, forthwith following the Exclusive Use Period, assign this Agreement to the Legacies Society by way of an assignment of lease agreement on terms satisfactory to the Province, which shall contain the direct covenant of the Legacies Society to and in favour of the Province to observe and perform, from and after the effective date of such assignment, all of the obligations, covenants and agreements on the part of the Lessee under this Agreement.

7.2 Release of VANOC Upon Assignment under Section 7.1

Following any assignment of this Agreement from VANOC to the Legacies Society on the terms of section 7.1, VANOC will have no further rights or obligations arising under this Agreement in respect of the period from and after the effective date of such assignment, notwithstanding section 12.4 or any other provision of this Agreement to the contrary, but will continue to be responsible for all obligations and liabilities on the part of the Lessee up to the effective date of such assignment.

7.3 Restriction on Assignment, etc.

Except as provided in section 7.1, the Lessee must not sublease, assign, mortgage or transfer this Agreement without the Province's prior written consent, which consent it may withhold in its sole discretion.

7.4 Change of Control

For the purpose of section 7.3, if the Lessee is a corporation, a change of control (as that term is defined in section 2(3) of the *Business Corporations Act*) of the Lessee will be deemed to be a transfer of this Agreement.

7.5 Public Company Exception

Section 7.4 does not apply to a corporation if the shares of the corporation which carry votes for the election of the directors of the corporation trade on a stock exchange located in Canada.

7.6 Membership Where Lessee is a Society

Where the Lessee is VANOC, any change of the members of VANOC which results in a majority of the members of VANOC not being appointed by:

- (a) City of Vancouver;
- (b) Resort Municipality of Whistler;
- (c) Government of Canada;
- (d) Government of British Columbia;
- (e) Canadian Paralympic Committee;
- (f) COC; and
- (g) the Band Council of the Lil'Wat First Nation and the Band Council of the Squamish First Nation, acting together,

shall be deemed to be a transfer of this Agreement. Where the Lessee is Legacies Society, any change of the members of Legacies Society which results in a majority of the members of Legacies Society not being appointed from:

- (h) Her Majesty the Queen in Right of the Province of British Columbia;
- (i) Resort Municipality of Whistler;
- (j) COC;
- (k) Canadian Paralympic Committee;
- (l) Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games;
- (m) the Band Council of the Mount Currie Indian Band, also known as the Lil'wat Nation; and

(n) the Band Council of the Squamish Nation,
shall be deemed to be a transfer of this Agreement.

7.7 Conditions for Request for Consent to Assignment

Prior to considering a request for consent under section 7.3, the Province may require the Lessee to meet certain conditions, including without limitation, that it submit to the Province a "site profile", "preliminary site investigation" or "detailed site investigation" (as those terms are defined in the *Environmental Management Act*) for the Land or other similar type of investigation of the Land.

7.8 Assignment of Collateral Agreements and Whistler Sliding Centre Agreements

Upon any assignment of this Agreement permitted hereunder, each of the Collateral Agreements and the Whistler Sliding Centre Agreements must also concurrently be assigned to the respective assignee of this Agreement.

ARTICLE 8 – ENVIRONMENTAL MATTERS

8.1 Allocation of Environmental Liabilities

(a) Lessee Assumption of Environmental Liabilities

The Lessee hereby assumes all environmental liabilities relating to the Land including without limitation, all costs, expenses or liabilities arising from all remedial action required by the Province or any Governmental Authority in respect of any Hazardous Substance on, under or emanating from the Land arising at any time resulting from the use and occupation of the Land:

- (i) by the Lessee or by any person for whom the Lessee is responsible in law prior to the Commencement Date;
- (ii) during the Term; and
- (iii) by the Lessee or by any person for whom the Lessee is responsible in law after the termination of this Agreement.

(b) Lessee Indemnity

The Lessee will indemnify and save the Province and its servants, employees and agents harmless from and against all claims, actions, causes of action, losses, damages, costs and liabilities, including without limitation fees of solicitors and other professional advisors, arising out of or in connection with all environmental liabilities arising at any time resulting from the use and occupation of the Land:

- (i) by the Lessee or by any person for whom the Lessee is responsible in law prior to the Commencement Date;

- (ii) during the Term; and
 - (iii) by the Lessee or by any person for whom the Lessee is responsible in law after the termination of this Agreement.
- (c) Release by Lessee

The Lessee hereby releases the Province from all claims, actions, causes of action, losses, damages, costs and liabilities, including without limitation fees of solicitors and other professional advisors, which it may have against the Province arising out of or in connection with any environmental liabilities arising at any time resulting from the use and occupation of the Land:

- (i) by the Lessee or by any person for whom the Lessee is responsible in law prior to the Commencement Date;
- (ii) during the Term; and
- (iii) by the Lessee or by any person for whom the Lessee is responsible in law after the termination of this Agreement.

8.2 Lessee's Environmental Covenants

The Lessee must

- (i) not, without the Province's prior written consent, bring, store, dispose or create upon the Land any Hazardous Substance nor permit any other person to do any of those things, other than a Hazardous Substance required in the uses permitted on the Land under this Agreement and then only in accordance with the Environmental Management Plan;
- (ii) if at any time during the Term, any Hazardous Substance is located on the Land which is not otherwise permitted to be on the Land under section 8.2(i):
 - (A) immediately give the Province notice to that effect and thereafter give notice to the Province from time to time of the extent and nature of the Lessee's compliance with the provisions of this subsection;
 - (B) promptly remove the Hazardous Substance from the Land in a manner which is satisfactory to all Governmental Authorities and conforms with all laws and regulations applicable to such removal; and
 - (C) if requested at any time by the Province, obtain, at the Lessee's expense, an audit from an independent consultant approved by the Province verifying the complete and proper removal of the Hazardous Substance from the Land, or if the Hazardous Substance has not been removed from the Land, a report as to the extent and nature of the failure to comply with the provisions of this subsection;

- (iii) comply with all laws and regulations relating to Hazardous Substances and environmental protection generally, including without limitation all laws and regulations from time to time in force regulating the manufacture, use, storage, transportation, release or disposal of Hazardous Substances and all laws and regulations from time to time in force regulating the remediation of lands contaminated by Hazardous Substances;
- (iv) at the Province's request undertake remedial action, satisfactory to the Province, in respect of any damage to the Land caused by any Hazardous Substance at any time prior to the Commencement Date or during the Term;
- (v) during the Term and on termination of this Agreement, undertake and complete such remedial action contemplated by the Environmental Management Plan and such further remedial action required by, and to the satisfaction of, the Province or any Governmental Authority;
- (vi) post security in such forms and amounts as required by the Province or any Governmental Authority to ensure the compliance by the Lessee with its obligations under section 8.2(v);
- (vii) permit the Province to make enquiries from time to time of any Governmental Authority with respect to the Lessee's compliance with all laws and regulations pertaining to it, its business and the Land, including without limitation all laws and regulations relating to any Hazardous Substance and to environmental protection generally, and the Lessee will from time to time provide to the Province such written authorization as the Province may reasonably require in order to make such enquiries and obtain information in response to the enquiries (provided that nothing in this Agreement obligates the Province to make any such enquiries);
- (viii) permit the Province from time to time to inspect the Lessee's improvements and goods upon the Land and its records relating to them for the purpose of identifying the nature of the improvements and the goods and the existence or absence of any Hazardous Substance on the Land and the Lessee will assist the Province in undertaking such inspections (provided that nothing in this Agreement obligates the Province to undertake any such inspections);
- (ix) dispose of all Hazardous Substances in accordance with the *Environmental Management Act* and any other applicable legislation and regulations made under those acts, and provide to the Province copies of all permits obtained by the Lessee in undertaking such disposal;
- (x) notify the Province of all spills and releases of Hazardous Substances on the Land which it is obligated to report to any Governmental Authority and provide copies to the Province of all orders, directives or other communications which the Lessee receives from any Governmental Authority in respect of such spills

or releases or in respect of any alleged breaches by the Lessee of any environmental legislation;

- (xi) provide to the Province copies of all documents in the Lessee's possession, in addition to those referred to in section 8.2(x), which relate to the cleanup of any spill, release or breach of environmental legislation referred to in section 8.2(x);
- (xii) not, without the Province's prior written consent, undertake any process or activity on the Land which:
 - (A) may result in any environmental liability unless the process or activity is contemplated and addressed by the Environmental Management Plan; or
 - (B) does not comply with the Environmental Management Plan;
- (xiii) on or before the day which is 30 days after any written request from the Province, including without limitation any request made at the time of any assignment of this Agreement, any proposed change in the uses permitted under this Agreement, or any spill, release or breach of environmental legislation referred to in section 8.2(x), deliver to the Province an environmental audit report on the condition of the Land to a degree of specificity required by it, prepared at the Lessee's expense by an independent consultant duly qualified and approved by the Province to prepare such an audit, together with a certificate of that consultant that other than as disclosed in the audit there has been no violation of any law or regulation applicable to Hazardous Substances and no spill or release of any Hazardous Substance on the Land which might result in liability on the part of the Lessee or the Province or in contamination of the Land. Notwithstanding the foregoing, except in the case of assignment of this Agreement, any proposed change in the uses permitted under this Agreement, or any spill, release or breach of environmental legislation referred to in section 8.2(x), the Province will not request an environmental audit prior to the end of the Exclusive Use Period;
- (xiv) dispose of raw sewage and refuse only in accordance with the requirements and regulations of appropriate federal and provincial agencies including the appropriate medical health officer or public health officer and the Environmental Management Plan;
- (xv) store bulk hazardous petroleum products and other toxic substances in accordance with the provisions of the *Environmental Management Act*; and
- (xvi) not use construction materials containing toxic substances except as provided in the Environmental Management Plan.

8.3 Ownership of Hazardous Substances and Storage Containers

If the Lessee brings, stores, disposes or creates upon the Land any Hazardous Substance or permits any of those situations to occur or if the conduct of its business causes there to be any Hazardous Substance upon the Land, notwithstanding any rule of law to the contrary, such Hazardous Substance and any container in which it is stored will be and remain the Lessee's sole and exclusive property and will not become the Province's property despite the degree of affixation to the Land of the Hazardous Substance or the container in which the Hazardous Substance is stored and this will be the case notwithstanding the termination of this Agreement.

8.4 Survival of Lessee's Obligations

The Lessee's obligations under this Article will survive the termination of this Agreement provided that to the extent the performance of those obligations requires access to or entry upon the Land or any part of it after termination of this Agreement, the Lessee will have such entry and access only at such times and upon such terms and conditions as the Province may from time to time determine, and the Province may, at the Lessee's expense, undertake or cause to be undertaken the performance of any necessary work in order to complete the Lessee's obligations, but by having commenced such work, the Province will have no obligation to complete such work.

8.5 Province's Right to Perform Lessee Obligations

If the Lessee fails to perform any obligation under this Article 8 the Province may, but is under no obligation to undertake on the Lessee's behalf:

- (i) remedial action in respect of any damage to the Land caused by any Hazardous Substance and charge to the Lessee the cost of such remedial action as money payable to the Province upon demand; or
- (ii) any of the Lessee's other obligations under this Article, in addition to those set out in section 8.5(i), and charge to the Lessee the cost of undertaking such obligation as money payable to the Province upon demand.

ARTICLE 9 – TERMINATION AND SURRENDER

9.1 Default

The Lessee agrees with the Province that:

- (a) if it:
 - (i) defaults in the payment of any money payable by it under this Agreement; or
 - (ii) fails to observe, abide by and comply with the provisions of this Agreement (other than the payment of any money payable by it under this Agreement);

and such default or failure continues for 60 days after the Province gives written notice of the default or failure to the Lessee;

- (b) if, in the Province's opinion, the Lessee fails to make diligent use of the Land for the purposes set out in this Agreement, and such failure continues for 60 days after the Province gives written notice of the failure to the Lessee;
- (c) if the Lessee fails to maintain in good standing any disposition issued by the Province to it for the use and occupation of Crown land including without limitation the Whistler Sliding Centre Agreements and if as a result of such failure the Province is entitled to terminate any such disposition;
- (d) if the Lessee:
 - (i) becomes insolvent or makes an assignment for the general benefit of its creditors;
 - (ii) commits an act which entitles a person to take action under the *Bankruptcy and Insolvency Act* (Canada) or a bankruptcy petition is filed or presented against the Lessee or the Lessee consents to the filing of the petition or a decree is entered by a court of competent jurisdiction adjudging the Lessee bankrupt under any law relating to bankruptcy or insolvency; or
 - (iii) voluntarily enters into an arrangement with its creditors;
- (e) if the Lessee is a corporation:
 - (i) a receiver or receiver-manager is appointed to administer or carry on its business; or
 - (ii) an order is made, a resolution passed or a petition filed for the Lessee's liquidation or winding up;
- (f) if the Lessee is a society, it converts into a company in accordance with the *Society Act* without the Province's prior written consent; or
- (g) if this Agreement is taken in execution or attachment by any person,

this Agreement will, at the Province's option and with or without entry, terminate, and all of the Lessee's rights, interests and estates in the Land will be absolutely forfeited to the Province.

9.2 Right to Cure Default

If the condition complained of (other than the payment of any money payable by the Lessee under this Agreement) reasonably requires more time to cure than 60 days, the Lessee will be deemed to have complied with the remedying of it if it commences remedying or curing the condition within 60 days and diligently complete the same.

9.3 No Claim by Lessee

The Lessee agrees with the Province that:

- (a) it will make no claim for compensation, in damages or otherwise, upon the lawful termination of this Agreement under section 9.1; and
- (b) the Province's remedies under this Article are in addition to those available to it under the *Land Act*.

9.4 Lessee Right to Surrender Lease

Provided the Lessee is not in default hereunder, upon 180 days notice to the Province, the Lessee may surrender this Agreement whereupon this Agreement will terminate and the Lessee will be released from all further obligations under this Agreement which arise in respect of the period subsequent to the effective termination date, but for greater certainty all provisions hereof which are stated to apply on termination or surrender of this Agreement shall continue to apply.

9.5 Right of Province to Perform Lessee's Defaults

It is hereby expressly understood and agreed that if at any time and so often as the same shall happen, the Lessee shall make default in the observance of performance of any of the Lessee's covenants herein contained, the Province may, but shall not be obligated to do so, without waiving or releasing the Lessee from its obligations under this Agreement, itself observe and perform the covenant or covenants in respect of which the Lessee has made default or make payment of any money that the Lessee has failed to pay, and all costs or expenses incurred by the Province in the observance or performance of such covenant or covenants including, without limitation, legal costs as between solicitor and client and any money so paid by the Province, with interest thereon, shall be payable by the Lessee to the Province in priority of any person claiming under or through the Lessee and all such costs, expenses, monies and interest thereon shall be payable by the Lessee as Additional Rent, and the Province shall have the same rights and remedies and may take the same steps for the recovery thereof as further recovery of Rent in arrears.

ARTICLE 10 – DISPUTE RESOLUTION

10.1 Initial Attempt to Resolve Disputes

If any dispute arises under this Agreement, the Parties will make all reasonable efforts to resolve the dispute within 60 days of the dispute arising (or within such other time period agreed to by the Parties) and, subject to applicable laws, provide candid and timely disclosure to each other of all relevant facts, information and documents to facilitate those efforts.

10.2 Mediation of Dispute

Subject to section 10.7, if a dispute under this Agreement is not resolved under section 10.1, the Parties agree to attempt to resolve the dispute by mediated negotiation with the assistance of a

neutral person appointed by the British Columbia International Arbitration Centre administered under its mediation rules.

10.3 Cost of Mediation

The cost of the mediation referred to in section 10.2 will be shared equally by the Parties.

10.4 Arbitration

Subject to section 10.7, if a dispute under this Agreement is not resolved under section 10.2 within 120 days of the dispute arising, on consent of both Parties in their sole discretion the dispute may be referred to arbitration conducted by a sole arbitrator appointed pursuant to the *Commercial Arbitration Act* on such terms as they may determine.

10.5 Cost of Arbitration

The cost of the arbitration referred to in section 10.4 will be shared equally by the Parties and the arbitration will be governed by the laws of the Province of British Columbia.

10.6 Venue

Any mediation under section 10.2 or arbitration under section 10.4 will be conducted in Vancouver, British Columbia.

10.7 Dispute of "Sole Discretion" Matters

A dispute under this Agreement in respect of a matter within the Province's sole discretion cannot, unless the Province agrees in its sole discretion, be referred to mediation as set out in section 10.2 or arbitration as set out in section 10.4.

ARTICLE 11 – NOTICE

11.1 Notices

Any notice required to be given by either Party to the other will be deemed to be given if mailed by prepaid registered mail in Canada or delivered to the address of the other as follows:

to the Province

Integrated Land Management Bureau
Suite 200 – 10428 153rd Street
Surrey, British Columbia
V3R 1E1;
Attention: Manager, Crown Land and Resources

to the Lessee

Vancouver Organizing Committee for the 2101 Olympic and Paralympic Winter Games
3585 Graveley Street
Vancouver, British Columbia
V5K 5J5
Attention: Chief Legal Officer

or at such other address as a Party may, from time to time, direct in writing, and any such notice will be deemed to have been received if delivered, on the day of delivery, and if mailed, seven days after the time of mailing, except in the case of mail interruption in which case actual receipt is required.

11.2 Fax Copies of Notices

In order to expedite the delivery of any notice required to be given by either Party to the other, a concurrent facsimile copy of any notice will, where possible, be provided to the other Party but nothing in this section, and specifically the lack of delivery of a facsimile copy of any notice, will affect the deemed delivery provided in section 11.1.

11.3 Delivery of Money

The delivery of all money payable to the Province under this Agreement will be effected by hand, courier or prepaid regular mail to the address specified above, or by any other payment procedure agreed to by the Parties, such deliveries to be effective on actual receipt.

ARTICLE 12 – MISCELLANEOUS

12.1 Unrelated Parties Not Liable

The Province acknowledges that none of the Dominion of Canada, the Province of British Columbia, the City of Vancouver (including without limitation its Board of Parks and Recreation), the Resort Municipality of Whistler, the City of Richmond, the Municipality of West Vancouver, the Canadian Paralympic Committee, the COC or the IOC, nor any department, agency, director, officer, minister, councilperson, servant, employee, agent or volunteer of any of the foregoing entities (each, an "**Unrelated Party**"), shall incur any financial responsibility or liability by virtue of or arising from the Unrelated Party's relationship to the Lessee as a member or, if applicable, as a venue owner or provider of capital funding except if, and then only to the extent that, they are made a party hereto or thereto. Without limiting the foregoing, for purposes of any obligation owing to the Province in connection with this Agreement, the Lessee shall not be deemed to be a partner, joint venturer or agent of any Unrelated Party. The Province covenants and agrees that, as its sole and exclusive remedy for any claims, demands, actions, suits or other proceedings under this Agreement, it shall have recourse only to the assets of the Lessee and not to the assets of any Unrelated Party. The Province, for itself and its administrators, successors, agents and permitted assigns, hereby agrees and covenants to refrain from bringing or causing to be brought, any claims, demands, actions, suits or other proceedings, whether at law or in equity, or whether before a court,

arbitration panel, agency board or other body, against any Unrelated Party, individually or in any combination thereof, and hereby irrevocably releases and waives any and all rights, demands, claims, actions, causes of action, duties or breaches of duty, known or unknown, existing, pending, accrued or unaccrued, which the Province claims to have, or may have against any Unrelated Party by virtue of or arising from the Unrelated Party's relationship to the Lessee as a member or, if applicable, as a provider of capital funding, except if, and then only to the extent that, any such rights, demands, damages, claims, actions, causes of action, duties or breaches of duty arise from any Unrelated Party being made a party hereto or to any subsequent agreement entered into by the Parties relating to the subject matter hereof.

12.2 Waiver

No provision of this Agreement will be considered to have been waived unless the waiver is in writing, and a waiver of a breach of a provision of this Agreement will not be construed as or constitute a waiver of any further or other breach of the same or any other provision of this Agreement, and a consent or approval to any act requiring consent or approval will not waive or render unnecessary the requirement to obtain consent or approval to any subsequent same or similar act.

12.3 Remedies

No remedy conferred upon or reserved to the Province under this Agreement is exclusive of any other remedy in this Agreement or provided by law, but that remedy will be in addition to all other remedies in this Agreement or then existing at law, in equity or by statute.

12.4 No Release

The grant of a sublease, assignment or transfer of this Agreement does not release the Lessee from its obligation to observe and perform all the provisions of this Agreement on its part to be observed and performed unless the Province specifically releases the Lessee from such obligation in the Province's consent to the sublease, assignment or transfer of this Agreement.

12.5 Enurement

This Agreement extends to, is binding upon and enures to the benefit of the Parties, their heirs, executors, administrators, successors and permitted assigns.

12.6 Force Majeure

If, due to a strike, lockout, labour dispute, act of God, inability to obtain labour or materials, law, ordinance, rule, regulation or order of a competent governmental authority, enemy or hostile action, civil commotion, fire or other casualty or any condition or cause beyond the Lessee's reasonable control, other than normal weather conditions, the Lessee is delayed in performing any of its obligations under this Agreement, other than the payment of money payable by it under this Agreement, the time for the performance of that obligation will be extended by a period of time equal to the period of time of the delay so long as

- (a) The Lessee gives notice to the Province within 30 days of the commencement of the delay setting forth the nature of the delay and an estimated time frame for the performance of the Lessee's obligation; and
- (b) The Lessee diligently attempts to remove the delay.

12.7 Limitations on Province's Obligations

The Lessee agrees with the Province that:

- (a) the Province is under no obligation under this Agreement, express or implied, to provide financial assistance or to contribute toward the cost of servicing, creating or developing the Land or the Improvements and the Lessee is solely responsible for all costs and expenses associated with its use of the Land and the Improvements for the purposes set out in this Agreement; and
- (b) nothing in this Agreement constitutes the Lessee as the Province's agent, joint venturer or partner or gives the Lessee any authority or power to bind the Province in any way.

12.8 Termination of Licence of Occupation

Upon execution and delivery of this Agreement, the Licence of Occupation shall terminate with effect as of the Commencement Date, but preserving the rights and obligations of the Parties thereto under and pursuant to the Licence of Occupation up to the Commencement Date.

12.9 Registration

The Province has no obligation to deliver this Agreement in a form registrable under the *Land Title Act* or to provide any survey of the Land or any portion of the Land so as to allow title for the Land to be raised under the *Land Title Act* and without limitation the Lessee agrees that the Province has no obligation under the *Property Law Act* to deliver this Agreement or any other instrument in respect of this Agreement in a form registrable under the *Land Title Act*. In the event that the parties determine that in order to give better effect to this Agreement it is necessary or desirable that the Land or any portion of the Land be surveyed or that any registration be effected under the *Land Title Act* the parties will cooperate with each other to obtain or effect any such survey or registration and the Lessee will be responsible for all survey, document preparation, filing and other related costs and expenses and property transfer or other taxes related thereto.

12.10 Powers, Privileges and Immunities Preserved

This Agreement does not override or affect any powers, privileges or immunities to which the Lessee is entitled under any enactment of the Province of British Columbia.

12.11 Execution Date and Effective Date

The Parties have executed this Agreement on the dates set forth below but as of the date of reference of this Agreement.

SIGNED on February 2, 2010
on behalf of **HER MAJESTY THE QUEEN
IN RIGHT OF THE PROVINCE OF
BRITISH COLUMBIA** by an authorized
representative of the Minister responsible for
the *Land Act*

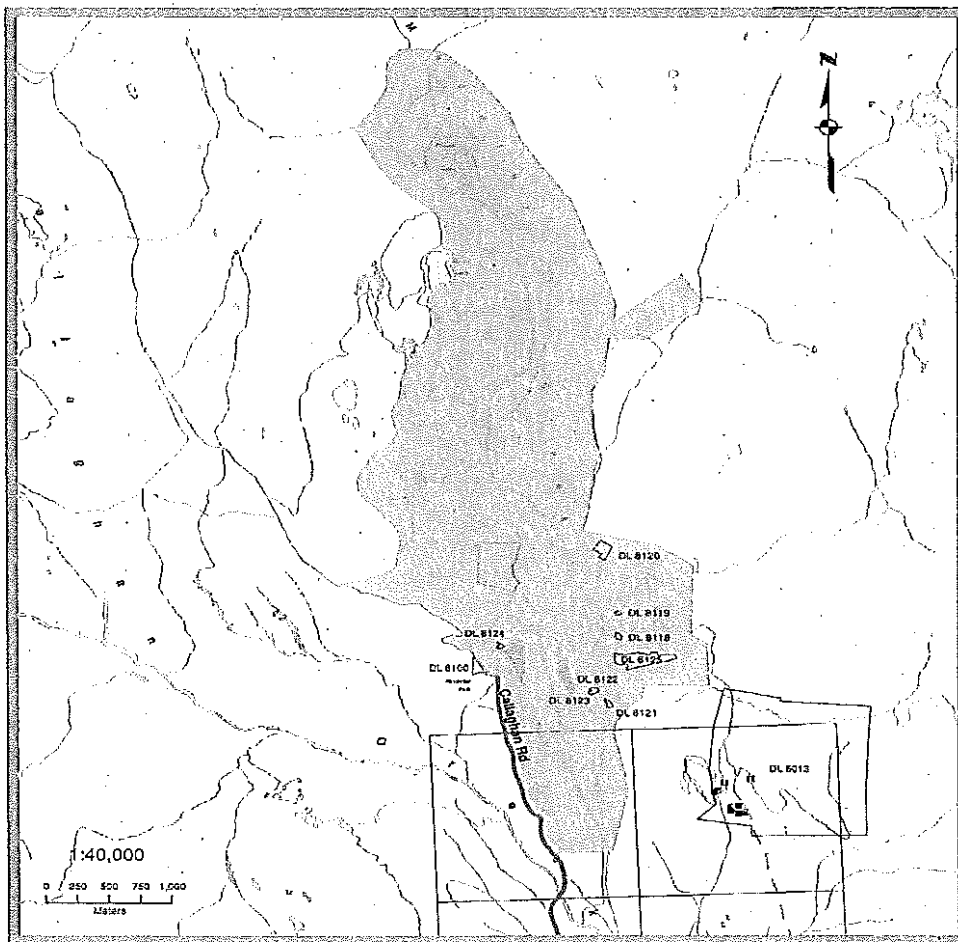
Maryanne White
Authorized Signatory

SIGNED on Feb 1, 2010
on behalf of **VANCOUVER ORGANIZING
COMMITTEE FOR THE 2010 OLYMPIC
AND PARALYMPIC WINTER GAMES**
by a duly authorized signatories

[Signature] CFO
Authorized Signatory
[Signature] CFO
Authorized Signatory

SCHEDULE A - LAND DESCRIPTION

1. **"Land"** means that area of approximately 1112.527 hectares of Crown land in the vicinity of District Lot 6013, Group 1, New Westminster District shown as the area marked in red on the map set out below and including both the unsurveyed portions of such area and surveyed district lots 8118, 8119, 8120, 8121, 8122, 8124 and 8125, Group 1, New Westminster District but excluding District Lot 8123, Group 1, New Westminster District and any area below a natural boundary (as that term is defined in the Land Act).

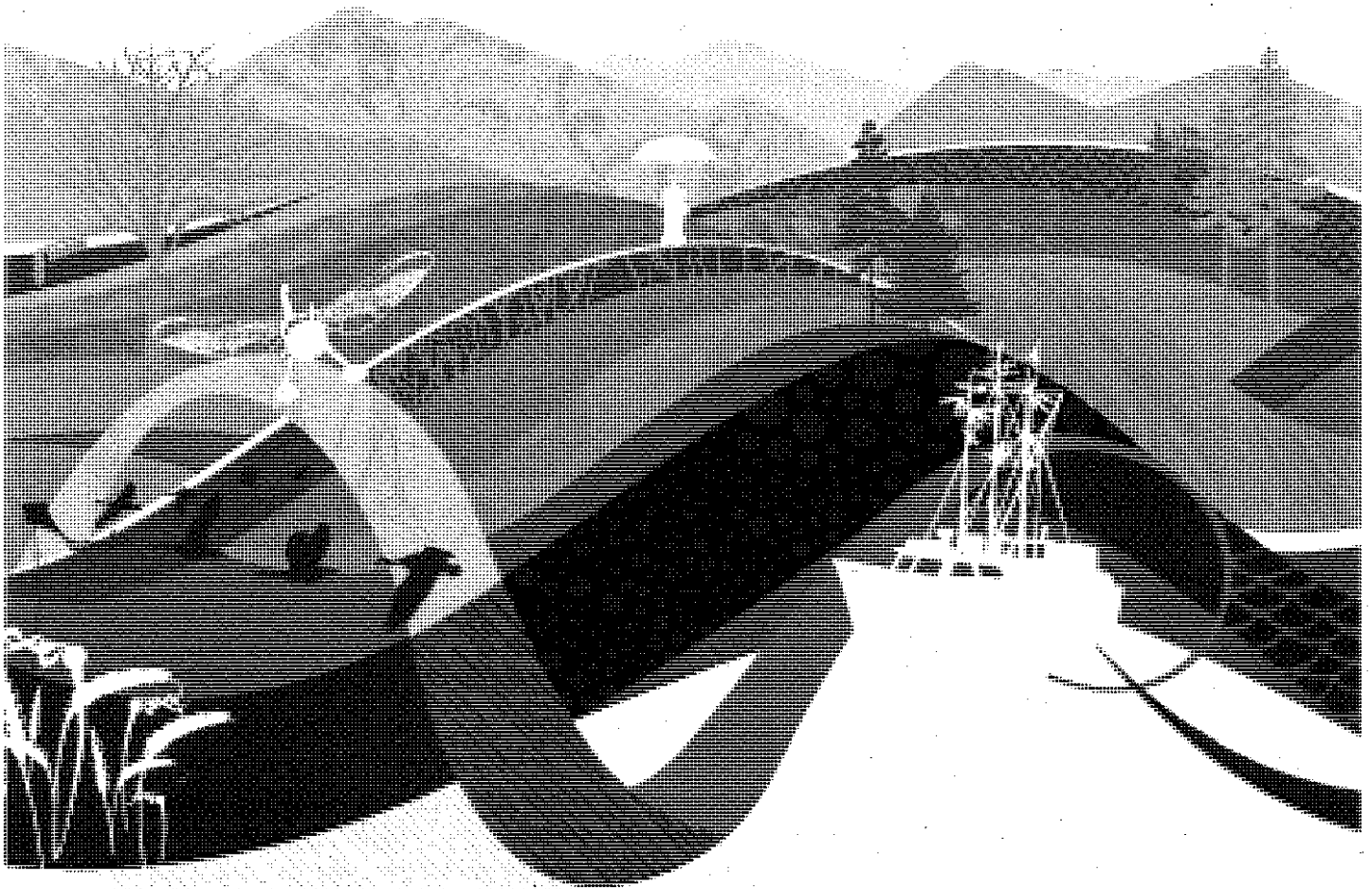


SCHEDULE B – COLLATERAL AGREEMENTS

1. Agreement with respect to the operation of the Madely Creek Quarry #7031 as set form in the letter from the Lessee and the Ministry of Transportation and Infrastructure and addressed to Integrated Land Management Bureau and dated November 7, 2008, as amended from time to time.

SCHEDULE C - REPORTS AND PLANS

1. Master Plan prepared by VANOC, dated June 2008 and designated "Draft Master Plan", which has been approved by the Province.
2. The Environmental Management Plan held on file as described in BCEAA Screening Report and Certification: Whistler Nordic Centre pursuant to the BCEAA and Canadian Heritage and Fisheries and Ocean Canada and Transport Canada, prepared by the British Columbia Environmental Assessment Office and certification issued April 5, 2005 and amended June 2007, Certificate Number TD05-01.



VANOC – Vancouver Organizing
Committee for the 2010 Olympic
and Paralympic Winter Games
3585 Graveley Street
Vancouver, BC, V5K 5J5

WHISTLER OLYMPIC PARK DRAFT MASTER PLAN

Dec 2008

Prepared in support of an application to the BC Integrated Land
Management Bureau for a License of Occupation and Lease Sites in
the Lower Callaghan/Madely Lake Area

Preface

The Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) is currently constructing the Whistler Olympic Park (formerly known as the Whistler Nordic Centre) in the Callaghan Valley. VANOC is responsible for overall management of the project design to ensure that it meets both the requirements of the Games and the legacy operations. A team of professional consulting engineers and architects engaged by VANOC has carried out the planning and design of the facilities. The objectives for development of Whistler Olympic Park (WOP) are multi-faceted: they include meeting requirements to successfully host the 2010 Olympic and Paralympic Games as well as the commitments to develop and operate a legacy facility after the Games.

Whistler Olympic Park's goals include the following:

- Successfully stage the XXI Olympic and X Paralympic Winter Games in 2010
- Preserve the legacy of the Olympic Games
- Continue to host national and international sport competitions
- Serve as a year-round training ground for developing and high-performance athletes
- Support and encourage sport development of youth and First Nations
- Encourage people to develop healthy lifestyles through the provision of recreation opportunities
- Promote tourism to Whistler and British Columbia
- Preserve the natural environment and values of the Callaghan Valley
- Minimize the impact on the First Nations traditional use of the Callaghan Valley
- Obtain long term Crown land tenures and resolve overlapping land tenure issues with existing operators
- Operate in a fiscally responsible manner

The Callaghan Valley is Crown land and responsibility for managing the recreational demand and land use conflict in the Valley rests with the Ministry of Forests, Integrated Land Management Bureau (ILMB) and BC Parks. Recreation activities in the valley, along with most areas in the Sea to Sky corridor, are seeing increasing numbers of participants. It is likely that Whistler area residents will also increase their use of the area once the road access is upgraded and the new Nordic facilities provided.

VANOC currently holds a license of occupation for construction of WOP. Once the Master plan is approved, the venue completed and surveyed, it is anticipated VANOC will receive a long-term tenure from the Province for the 262 hectare WOP site and lands needed for the recreation trails. This tenure will accommodate the facilities described in this plan and provide the land required for the 2010 Games and post-Games operations.

WOP is being developed within the traditional territories of both the Squamish and Lil'wat Nations. The Squamish & Lil'wat Nations signed the Shared Legacies Agreement with the Vancouver 2010 Bid Corp. and the Province of BC on November 22, 2002, and a Letter of Mutual Understanding with VANOC on February 2, 2005, that outlined a number of important

principles and understandings. In particular, the Letter of Mutual Understanding includes commitments between the Squamish & Lil'wat Nations and VANOC specifically regarding the development and construction of WOP. VANOC and the Squamish and Lil'wat Nations have also agreed to develop a proactive First Nations' employment strategy to create incentives for First Nations employment on construction of WOP.

The lower portion of the valley is within the Resort Municipality of Whistler (RMOW) municipal boundaries and the balance of the area including the venue location is within Area "D" of the Squamish-Lillooet Regional District.

Government Participation

The Multiparty Agreement for the 2010 Winter Olympic and Paralympic Games (2002) (signed by the federal government, the BC provincial government, the City of Vancouver, the Resort Municipality of Whistler, the Canadian Olympic Committee, the Canadian Paralympic Committee and the Bid Corporation) specifies that the following contributions will be made to the 2010 Winter Games by the federal and provincial governments:

- Contribute equally to the capital budget (a shared cost of approximately \$110 million for WOP)
- Subject to an endowment agreement and any contribution agreements, contribute to the Legacy Endowment Agreement Fund a shared total of \$110 million;
- Provide services and procedures that would ordinarily be provided.

The Legacy Endowment Agreement Fund has been funded as above by both senior governments was originally set at \$110 million. The endowment is managed by a separate and arms-length trust, the Games Olympic Trust (GOT). Access to the earnings of this fund are being provided to offset the operation and maintenance costs of WOP, as well as the other Whistler legacy facilities and the Richmond Oval.

WOP will be operated as a not-for-profit business and a key objective will be to maintain WOP's sport training and development focus while encouraging the commercial recreational activity and associated revenues needed to maximize earned revenue. While the intent is to operate the commercial aspects of the facility on a self-sustaining basis, ongoing subsidies from the Legacy Endowment Agreement Fund will be required to support sport development components of the operation. Additionally, it may be necessary to draw on the principal of the Endowment Fund to fund significant future capital upgrading and to cover shortfalls in operating revenue.

Environmental Assessment at WOP

Before construction of the project, VANOC requested that the British Columbia Environmental Assessment Office (EAO) designate WOP as a reviewable project under the *BC Environmental Assessment Act*. The project was also reviewable under the *Canadian Environmental Assessment Act* (CEAA). The application for the EA certificate included the following project components:

- Project components to be developed within the 262 hectare licensed parcel to support the Games and the legacy operations, and recreation trails to be developed outside of the parcel to support the legacy operations
- Development of a new access on the west side of Callaghan Creek and upgrades to the East Callaghan Main Forest Service Road (FSR) which provides access to WOP.

The access road and road upgrades are the responsibility of the BC Ministry of Transportation, but were included in the EA because the upgrade is an off-site impact that would not have occurred without the development of WOP project.

During the EA review, the EAO decided to separate the environmental review into "Part A" (the Nordic Venue and access roads) and "Part B" (the Recreational Trails). The rationale for postponing the review of the "Recreational Trails" was to allow the proponent (VANOC) adequate time for additional consultation during the design and planning of the Recreational Trails. In order to allow a CEAA determination to be made regarding the competition venue and access roads only, the Recreational Trails were removed from the scope of WOP CEAA screening review.

The EAO issued an Environmental Assessment Certificate for Part A, the Whistler Nordic Center (Environmental Assessment Certificate TD05-01) on April 5, 2005 in a "harmonized" process with Canadian Heritage (PCH), the Responsible Authority in the CEAA process. The EA Certificate and CEAA decision permitted development of the Olympic facilities but not the Legacy Trails.

In December 2006, VANOC requested that the provincial EAO amend Certificate TD05-01 under section 19 of the *Environmental Assessment Act* to include the project - Component B, the Whistler Nordic Legacy Trails Project. After an additional, Legacy Trails-specific environmental assessment process, amendments to the issued EAO certificate and PCH determination were made to include authorization for the Legacy Trails in June, 2007.

Environmental assessments are information intensive. VANOC and its expert consultants produced numerous assessment reports and management plans throughout the process. The goals here were not only to meet regulatory requirements, but to make VANOC's sustainability objectives tangible in venue development. Key EA documents for WOP include:

Creekside Resources Inc. 2002. *Archaeological Impact Assessment of the Proposed Callaghan Olympic Nordic Sports Centre Site.*

ENKON Environmental. January 2003. *Preliminary Environmental Assessment Proposed Whistler Olympic Park Callaghan Valley.*

ENKON Environmental. June 2004. *Phase II Environmental Assessment Whistler Olympic Park, Callaghan Valley.*

ENKON Environmental. 2004. *Application for an Environmental Assessment Certificate – Whistler Olympic Park Volume 1.*

ENKON Environmental. 2004. *Application for an Environmental Assessment Certificate – Whistler Olympic Park Volume 2.*

ENKON Environmental. 2004. "Whistler Olympic Park Environmental Management Program" in *Application for an Environmental Assessment Certificate – Whistler Olympic Park Volume 1.*

ENKON Environmental. 2007. *Whistler Olympic Park Recreational Trails, Callaghan Valley, BC - Environmental Impact Assessment*

ENKON Environmental Limited. 2007. *Whistler Olympic Park Recreational Trails, Callaghan Valley, BC: Project Application Amendment to Environmental Assessment Certificate TD05-01.* Prepared for the Environmental Assessment Office on behalf of Vancouver Organizing Committee (VANOC) for the 2010 Olympic and Paralympic Winter Games, Vancouver, BC.

EBA Engineering Consultants Ltd. July 2004. *Whistler Olympic Park Project Cumulative Effects Assessment.*

EBA Engineering Consultants Ltd. 2004. *Whistler Olympic Park Project Assessment of Alternative Means of Carrying out the Project, Effects of Accidents and Malfunctions and Effects of the Environment on the Project.*

Golder Associates Ltd. January 2004. *Phase II Geotechnical Study Whistler Nordic Centre Callaghan Valley, Whistler, BC.*

Kerr Wood Leidel Consulting Engineering. 2004. *Whistler Olympic Park Venue – Phase 2 Hydrological Update.* Report prepared for VANOC

Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC). 2005. *Whistler Olympic Park Part B – Recreation Trails Project Description.*

Much of the text in this Master plan document has been copied verbatim from these and other consulting and research studies conducted during and after the environmental assessment process.

Commitment to Sustainability

VANOC is committed to sustainable economic, social, environmental and inclusive practices in its planning and operation of the Games in 2010.

During the international bid phase, the Vancouver 2010 Bid Corporation committed to moving beyond environmental stewardship to embrace the economic and social components of sustainability in order to support balanced decision making, a long-term view, inclusiveness, equity and healthy communities. In 2005 and 2006, VANOC established a set of six corporate-wide sustainability performance objectives. These objectives are based on Bid commitments, best management practices of other Organizing Committees and input from sustainability experts, key partners and stakeholders. They are an integral part of VANOC's strategic planning initiatives and the guiding principles for every aspect of business and operations:

Sustainability Objectives

Accountability

- To behave ethically, set measurable performance targets and communicate openly about our progress and challenges
- To consult with external groups affected by our activities

Environmental Stewardship and Impact Reduction

- To conserve natural environments and manage, mitigate and offset negative impacts

Social Inclusion and Responsibility

- To convene accessible Games that have a positive impact on socially and economically disadvantaged groups that otherwise would not benefit
- To care for our workforce, protect human rights, and ensure health and safety

Aboriginal Participation and Collaboration

- To partner with the Four Host First Nations to achieve an unprecedented level of Aboriginal participation in the Games

Economic Benefits

- To demonstrate that sustainable innovation and practice makes good business sense

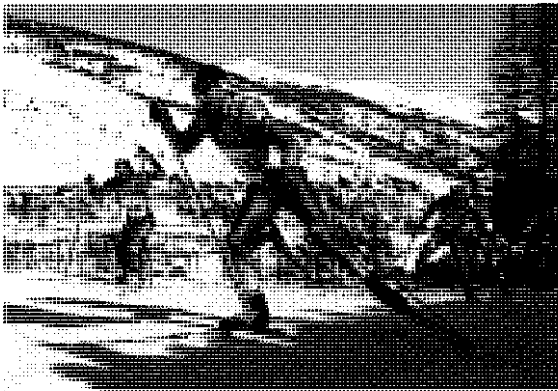
Sport for Sustainable Living

- To use sport, and growing athlete and public interest in living more sustainably, to inspire action on local and global sustainability challenges

Executive Summary

On July 2, 2003, the International Olympic Committee (IOC) selected Vancouver, Canada to host the 2010 Olympic and Paralympic Winter Games. In preparation for the Games, the Vancouver Organizing Committee for the 2010 Games (VANOC) is constructing the Whistler Olympic Park (WOP) and a permanent additional network of approximately 20-25 km of recreational trails. WOP is located in the Callaghan Valley and will host four Olympic competitions (cross country skiing, biathlon, Nordic combined and ski jumping) as well as two Paralympic competitions (cross country skiing and biathlon).

WOP location was chosen over 11 other sites around the Lower Mainland based on criteria



such as elevation, road access and proximity of the Whistler Athlete's Village. The Callaghan Valley is considered an excellent site for WOP due to the moderate temperatures, absence of wind, abundant dry snow, established and easy road access, and elevation. The surrounding glaciers above the valley create a cold outflow that meets the warm wet inflow and leaves dry snow. This is much drier snow generally than at Whistler or Cypress, and the snow comes early and stays late, providing an opportunity for preseason training and late season events.

The Callaghan Valley contains numerous streams, small lakes, localized swampy areas, bedrock outcrops and moderate to dense forest cover up to an elevation of 1300 m. The area lies within a region of rugged mountainous terrain in the Southern Coast Mountain Range. WOP is bounded to the east by the slopes of Rainbow and Sproatt Mountains and to the west by Powder Mountain, Brandywine Mountain, Mount Fee, and to a lesser extent by Mount Cayley. It extends to the west, rising up the Callaghan Creek watershed ultimately rising up the flanks of Mount Callaghan to provide access to the Pemberton Icefields beyond. Elevations at WOP site range from 800 to 1000 ASL, and elevations surrounding the alpine peaks range up to 2300 ASL.

The Valley is heavily utilized for recreation. Summer activities include hunting on land and fishing in Callaghan and Madeley lakes. Trails for mountain biking and hiking include the Flank Trail and others linked to trails in the Whistler area. Winter activities include snowmobiling and back country skiing. Several commercial companies operate tours in the valley. In addition, there are two forest service recreation areas, Alexander Falls, just west of the Olympic 5K Trail, and Madeley Lake immediately north of the project boundary. Each of these facilities provides camping space for six tents. Callaghan Lake Provincial Park is northwest of WOP site and provides ten camping (tent) spaces. There is an active forest license (Western Forest Products) in the area and an inactive Northair Mine lies just east of the Whistler Olympic Park Venue.

The valley also is shared traditional territory of the Squamish and Lil'wat Nations.

The full scope of the Olympic development is housed within site's 262 ha and includes:

- A K95 and a K125 ski jump facility.
- A biathlon range, competition trails, daylodge a biathlon event building and biathlon storage/wax building.
- A cross country skiing stadium, competition trails, a cross country skiing event building and cross country skiing storage/wax building.
- Parking lots, internal roads and pedestrian access
- Infrastructure and services including power, water sewage disposal, waste management, communications, fire protection and a maintenance building
- Permanent post Games recreational trails (also referred to as 'Legacy Trails') accessible to the cross-country skiing public and facilities suitable for four season recreation after the Games.
- Summer and winter commercial recreational amenities to complement the high performance sport facilities for legacy operations.

WOP and Legacy Trails both underwent harmonized federal/provincial environmental assessments. Environmental Assessment Certificate TD05-01 was issued by Canadian Heritage in April, 2005 for WOP project. Construction of these facilities and infrastructure commenced in the summer of 2005 and is scheduled for substantial completion in fall of 2007. Amendments to the issued certificates were made to include authorization for the Legacy Trails in June, 2007. Construction of the Legacy Trails component began shortly after and will conclude in fall 2008.

International Olympic Committee (IOC) standards require WOP to host World Cup level events in 2009 prior to the 2010 Winter Games in order to test the venue. In addition to World Cup test events, VANOC intends to hold regional, national and continental cup events two years prior to the Games (2008) in order to further test the venues and the associated event organizations. These pre-Olympic events will encompass all four of the sports that will compete at the venue during the Olympic and Paralympic Games. VANOC will be required to remain intimately involved in the day to day operations of WOP facilities until the conclusion of the Games to meet these pre-Olympic testing objectives.



In addition to test events, VANOC will implement and oversee the start up and ongoing operation of: grooming, snow making, lift operations, snow management, public skiing and snow activities, additional programs and public guest services. The primary goal of these business activities is to enhance the transition to successful post-Games/Legacy operations.

The Olympic and Paralympic Games will be held in February and March 2010 respectively. In the months leading up to the Games, VANOC will deploy necessary temporary facilities to support event delivery. This temporary Olympic 'overlay' may include, but is not limited to:

AV (Audio / Visual)	Seating
Cable Management	Scaffolding
Flagpoles	Signage
Temporary Food and Beverage	Staging
Fencing	Storage Containers
Heavy Equipment Rental	Temporary Power (if required)
Lighting	Tents
Look/Pageantry	Toilets
Rigging	Trailers

Such temporary infrastructure will be removed as soon as possible after the Paralympic Games in March 2010.

In a post-Games environment, WOP's assets will be owned by a non-profit entity known as the Whistler Legacy Society (WLS). The WLS was formed for the purposes of receiving and managing WOP, Whistler Sliding Centre and the Whistler Athlete Centre legacy properties in a post-Games context. The WLS will operate as a non-profit society with a Board of Directors and manage a non-profit business with the objective of self-sustaining operations. VANOC will develop and operate WOP until the Whistler Legacy Society is in place to take over.

WOP's core business program includes the following:

- host national and international sport competitions for Nordic skiing and biathlon at a world class Nordic Venue
- host regional and local sport competitions for Nordic skiing, biathlon, mountain biking and cross country running
- provide a winter and summer training facility for national and regional athletes including both elite and developing athletes
- host teaching programs, youth camps, and athletes with disabilities program
- provide winter recreation opportunities for cross country skiing biathlon, snowshoeing and snowplay in a terrain park or in a tube park
- provide summer recreation opportunities at the biathlon shooting range, mountain biking cross country running and hiking
- provide winter and summer tours for the public to the Olympic and Paralympic stadiums and nearby Alexander falls
- provide 40 - 50km of cross country ski trails (22 km of competition trails and 20-25 km of recreational trails in the Madelay Valley towards Madelay Lake), two storage, waxing or warming huts @ 300 sq.metres each, two sport buildings up to 380 sq.metres each, and a basic day lodge at 900 sq. metres to support the proposed activities.

VANOC requests the Province provide the appropriate tenures needed to achieve immediate operational objectives as well as enabling Legacy operations. Specifically, VANOC seeks a 30 year licence of occupation with associated designation of "Controlled Recreation Area" in accordance with the Land Use Policy "All Season Resort" under the *Land Act* (Ch. 245 R.S.B.C., 1996). This land tenure would be transferred to the Whistler Legacy Society (WLS) for continued operation of WOP after the Games are completed.

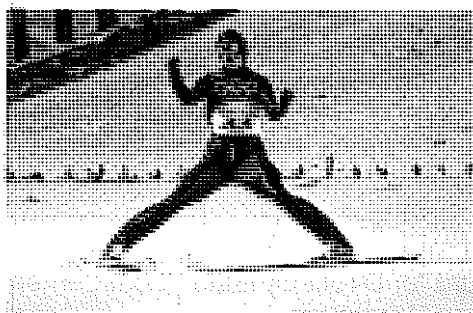


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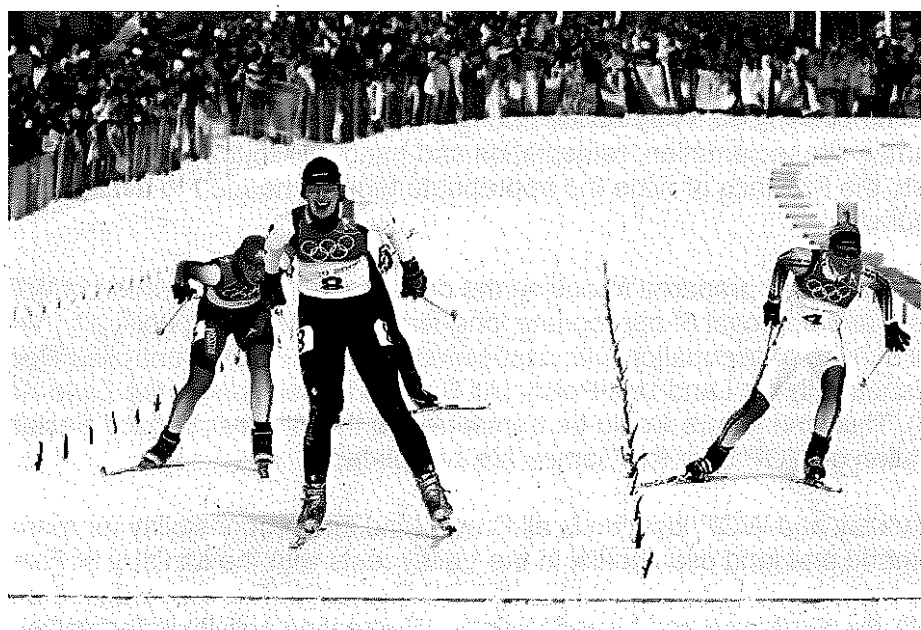
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1 Project Overview

1.1 Purpose of this Master Plan

The Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) is responsible for planning, organizing, financing and staging the XXI Olympic Winter Games and the X Paralympic Games in 2010. Whistler Olympic Park (WOP) is a key component of VANOC's venue development program and will host ski jumping, biathlon, cross country and nordic combined events. Marshalled by a provincial Environmental Assessment process, its facilities and associated infrastructure were tailor made to not only meet rigorous IOC and FIS standards, but also accommodate the recreating public in the post-Games context. Construction of WOP is currently underway and will be substantially complete in the fall of 2007. As WOP is located on Crown land, improvements underway are enabled by a licence of occupation (License No. 239428) granted by the Province.

As construction draws to a close and the venue is commissioned, new tenure arrangements are required for VANOC's operational utilization. This use involves:

- hosting regional, national and international test events
- ticketed public skiing and snowshoeing on groomed trails
- ski and snowshoe rentals
- group lessons and ski schools
- tours of Olympic facilities
- the installation of temporary Olympic overlay
- the site's functioning as a key venue during Olympic and Paralympic Games.
- post-Games site reclamation, remediation and handover to the Legacy Society

VANOC requests the Province provide the appropriate tenures needed to achieve these operations objectives.

This Master Plan has been prepared to outline the development and operation of WOP and to permit application and approval of appropriate long-term land tenure. Specifically, VANOC seeks a 30 year licence of occupation with associated designation of "Controlled Recreation Area" in accordance with the Land Use Policy "All Season Resort" under the *Land Act* (Ch. 245 R.S.B.C., 1996). This land tenure would be transferred to the Whistler Legacy Society (WLS) for continued operation of WOP after the Games are completed.

The Callaghan Valley and WOP location is all Crown land and responsibility for managing the recreational demand and land use conflict in the Valley rests with the Ministry of Forests, Integrated Land Management Bureau (ILMB) and BC Parks. WOP is also within the traditional territories of both the Squamish and Lil'wat Nations. Recreation activity in the valley, along with most areas in the Sea to Sky corridor, is increasing and it is equally likely that Whistler area residents will also increase their use of the Callaghan Valley after the access is upgraded and the new Nordic facilities opened.

1.2 Proponent Identification

The proponent of the Whistler Olympic Park is the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC). Incorporated September 30, 2003 under the Canada Corporations Act, VANOC's mandate is to support and promote the development of sport in Canada and deliver the 2010 Winter Games. VANOC's operations are overseen by a Board of Directors with representatives from the Canadian Olympic Committee (COC; and including Canadian members of the International Olympic Committee (IOC)), Government of Canada, Province of British Columbia, City of Vancouver, Resort Municipality of Whistler, Canadian Paralympic Committee, Lil'wat First Nation and Squamish First Nation. VANOC's Board is responsible for overseeing all aspects of organizing and hosting the 2010 Winter Games.

1.2.1 Proponent Contact Information

Vancouver Organizing Committee for the 2010 Olympic and Paralympic Games

Contact: John Aalberg, Director, Nordic Sports and WOP General Manager
400 - 3585 Graveley Street
Vancouver B.C. V5K 5J5
Main: 604-403-1428
Email: john_aalberg@vancouver2010.com

Contact: Neil Turner, Director, Environmental Approvals
400 - 3585 Graveley Street
Vancouver B.C. V5K 5J5
Main: 604-403-1835
Email: neil_turner@vancouver2010.com

1.3 Location

The Whistler Olympic Park (WOP) for both Olympic and Paralympic Games is located in the Callaghan Valley south of Whistler. WOP is located in the Madeley Creek drainage area, 9 km from the Highway 99 intersection on the Forest Service Mainline. The main entrance to the 24,000 ha Callaghan watershed is 12.5 km south of the RMOW on the northwest side of Highway 99.

The legal address of WOP is:

Whistler Olympic Park
5 Callaghan Valley Road
Callaghan Valley, BC

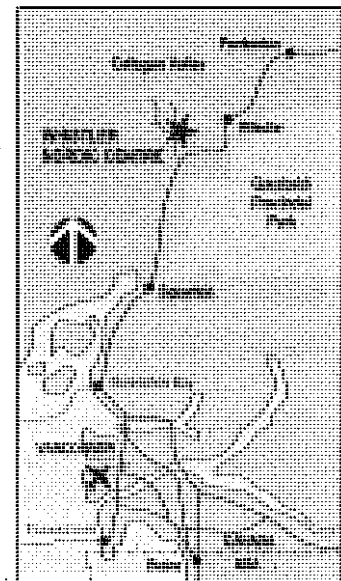


Figure 1 General Location Map

1.4 Land Considerations

The Callaghan Valley is heavily utilized for recreation. Summer activities include fishing in Callaghan and Madeley lakes and hunting. Trails for mountain biking and hiking include the Flank Trail, and are linked to trails in the Whistler area. The Flank Trail is an old (circa 1970s) road built to access timber in the area. Winter activities include snowmobiling and back country skiing. Several commercial companies operate tours into the valley. In addition, there are two forest service recreation areas, Alexander Falls, just west of the Olympic 5K Trail, and Madeley Lake immediately north of the project boundary. Each of these facilities provides camping space for six tents. Callaghan Lake Provincial Park is northwest of the Whistler Olympic Park and provides ten camping (tent) spaces.

There has been an active forest license (Western Forest Products) in the area and an inactive Northair Mine lies just east of the Whistler Olympic Park. The site was operated as a poly-

metallic underground mine for a relatively short period of time ending in 1974-75.



Figure 2 WOP and the Callaghan Valley

The valley also is shared traditional territory of the Squamish and Lil'wat Nations. Callaghan Valley has been included in the Squamish Nation's draft Land Use Plan that identifies the area of the Whistler Olympic Park as part of the Callaghan/Upper Soo Sensitive Area. According to the plan, some development (e.g. logging) of sensitive areas is permitted, but special logging techniques must be developed for use in these areas.

The lower portion of the valley is within the Resort Municipality of Whistler (RMOW) municipal boundaries and the balance of the area including the venue location is within Area "D" of the Squamish-Lillooet Regional District (SLRD).

1.5 Site Selection

The WOP location was chosen over 11 other sites around the Lower Mainland based on criteria such as elevation, road access and proximity of the Whistler Athlete's Village. The Callaghan Valley is considered a very good site for WOP due to the moderate temperatures, absence of wind, abundant dry snow, established and easy road access, elevation. The surrounding glaciers above the valley create a cold outflow that meets the warm wet inflow and leaves dry

snow. This is much drier snow generally than at Whistler or Cypress, and the snow comes early and stays late, providing an opportunity for preseason training and late season events.

1.6 Venue Plans

The Whistler Olympic Park Venues will host the Olympic cross-country skiing, biathlon, Nordic combined and ski jumping events as well as the Paralympic Games including – cross country skiing and biathlon. WOP facilities, developed initially for the Olympic and Paralympic Games will remain for future Nordic sport development, hosting ongoing International, National and Regional Nordic events and commercial public recreational skiing. Construction of WOP site and associated legacy trails began in 2005, after undergoing a comprehensive federal/provincial harmonized environmental assessments for WOP (see VANOC 2004a; 2004b) and the Legacy Trails (ENKON 2007). Construction on both project components is expected to be completed in the fall of 2007.

The sequence of activities carried out at WOP are summarized in Figure 3.









	2005	2006	2007	2008	2009	2010	2011	2012
WOP Design								
WOP Construction								
Test Operations & Events								
Olympic Overlay Const.								
Olympic Games						★		
Paralympic Games						★		
Site Remediation								
Legacy Operations								

Figure 3 Overview of Activity Sequence at WOP

1.7 Whistler Legacy Society

WOP's assets will be owned by a non-profit entity to be known as the Whistler Legacy Society (WLS). The WLS has been formed for the purposes of receiving and managing WOP, Whistler Sliding Centre and the Whistler Athlete Centre legacy properties in a post-Games environment. The WLS will be a non-profit society with a Board of Directors, and will be operated as a non-profit business with the objective of self-sustaining operations. VANOC will develop and operate WOP until the Whistler Legacy Society or other entity is in place to take over and will be required to remain intimately involved in the day to day operations of the facility until the conclusion of the Games. In addition to owning the venue assets, the Whistler Legacy Society

will operate the Whistler area Olympic facilities including WOP, the Whistler Sliding Centre and the Whistler Athlete Training Centre.

1.8 Post Games Use

It is anticipated that WOP and associated Legacy trails will be a unique entity, designed to offer a complementary mix of sport and recreation activities to enhance the visitor experience of the Whistler Resort and preserve the legacy of the 2010 Olympic and Paralympic Games. In the post-Games environment, the goals of WOP are:

- Continue to host national and international sport competitions
- Serve as a year-round training ground for developing high-performance athletes
- Encourage people to develop healthy lifestyles through the provision of recreation opportunities
- Promote tourism
- Operate in a fiscally responsible manner

Improvements to the Sea to Sky Highway and upgraded access to WOP will reduce the drive time to Vancouver to less than two hours and increase the local area market significantly by providing access to the Vancouver, Pacific North West and long haul travel markets using the international airport.

1.9 Suitability of a CRA Tenure Designation at the WOP

A Controlled Recreation Area is appropriate for WOP development that has occurred and the planned post-Olympic intensive recreation use. VANOC/WLS will control the activities that occur within the proposed CRA by managing its facilities and trail system to avoid incompatible activities and to ensure that any development and use occurs in a manner that is orderly and safe. VANOC/WLS will not unreasonably refuse to allow individuals to pass freely through the tenured area for the purposes of a public recreation or other activity. VANOC/WLS will however regulate, prohibit and direct movement and activities of persons and vehicles within the bounds of the proposed CRA. In addition, it will restrict non-paying users from utilizing the established (constructed) and maintained (groomed and lit) WOP recreation or facility improvements outlined above.

VANOC/WLS will employ a pay-ticketing system for members of the public wishing to ski or snowshoe on groomed trails. This system of admission will also be associated with ski/snowshoe rentals, group lesson/ski schools programs as well as Olympic facility tour opportunities. Postings of signage and notices at trail heads, buildings and throughout the tenured site will establish/delineate the recreation boundaries of WOP. This signage will clearly indicate trails or facilities which are to be used by paying visitors, the goal being to successfully avoid trespass.

2 Environment and Site Characteristics

2.1 Geophysical Environment

2.1.1 Physiography and Topography

WOP site is located on the northeast side of Callaghan Creek watershed within the Madeley Creek sub-basin. The area contains numerous streams, small lakes, localized swampy areas, numerous bedrock outcrops and moderate to dense forest cover up to an elevation of 1300 m. The site lies within a region of rugged mountainous terrain in the Southern Coast Mountain Range. WOP is bounded to the east by the slopes of Rainbow and Sproatt Mountains and to the west by Powder Mountain, Brandywine Mountain, Mount Fee, and to a lesser extent by Mount Cayley. It extends to the west, rising up the Callaghan Creek watershed ultimately rising up the flanks of Mount Callaghan to provide access to the Pemberton Icefields beyond. Elevations at WOP site range from 800 to 1000 ASL, and elevations surrounding the alpine peaks range up to 2300 ASL.

Common features of the Callaghan Valley include relatively steep bedrock controlled slopes along the valley sides leading to a more gently sloped, somewhat undulating valley bottom, containing a variable depth of soil deposits, drainage features and wet ponded areas.

The valley form has been most recently shaped by glacial processes, which has scoured the relatively steep mountain slopes and built up moraines and other soil/rock feature within the rocky bottom. Glacial fluvial and other erosion processes have further modified the mountain slopes and generated the undulating topography of the valley bottom within the main WOP site. Localized areas containing ponded water and/or soft spongy ground are found in many of the low lying portions of the site.

2.1.2 Soils and Geology

The soil zone on the valley walls normally contain a surficial layer of organics and forest litter underlain by a relatively thin (1 to 1.5 m) silty sand and gravel, which is underlain by a dense glacial till (unsorted silty sand with gravel, cobbles and boulders). The processes of erosion combined with the stabilizing influences of the vegetation have developed a stable configuration, which if disturbed in a significant way, can lead to veneer slides within the soil zone. The slope surface, underlying soil zones and underlying bedrock all conduct water, at varying rates, from the top of the valley walls to the valley bottom (Golder 2004).

The bedrock underlying the existing soil zones or forming outcrops can generally be divided into stratified and intrusive rocks. Two main groups in the stratified division are the Gambier and Garibaldi group. The Gambier group includes andesitic to dacitic tuff and breccia agglomerate. The Garibaldi group consists of recent basalt flows and pyroclastics with minor sandstone, shale and conglomerate. The intrusive rocks are more crystalline in nature and include quartz monzonite, granodiorite and quartz diorite. In the Callaghan Valley, the Garibaldi group is found

in the valley outlet area and the Gambier and Coast Plutonic are found in the central and northern portions. The Gambier group is the predominant group within the Olympic facilities area, with localized deposits of intrusive rocks expected along the Madeley Creek and below the marsh area between the parking and cross-country skiing stadium (Golder 2004).

The bedrock geology at the venue site is complex and the site is located at/near the northern boundary of the Callaghan Creek roof pendant that is one of many northwesterly trending volcanic and volcanic-sedimentary pendants within the southern part of the Coast Plutonic Complex. The pendant rocks are variably metamorphosed and commonly characterized by a strong northwesterly trending foliation. The dominant rock type exposed at the venue site appears to be crystal tuff. Basalt is intermittently exposed in the cuts of the lower, approximately 3 km of the main valley access road and in one exposure along the existing logging road near the cross-country venue. The crystal tuffs as well as other volcanic rock types range from being densely jointed to more compact/massive. Localized shear zones, faults and hydrothermal alterations were observed to result in variable rock conditions within a short distance.

Rocks of the Coast Plutonic Complex are also exposed at the venue site (upper ski jump area and northeast portions of the biathlon and cross-country venues) and ranges in composition from diorite, quartz diorite to quartz monzonite.

2.1.3 Hydrogeology and Groundwater

Piteau Associates (2004) conducted assessments of hydrogeology and groundwater in the Callaghan on behalf of VANOC. The assessment of existing geology revealed surficial sediments (i.e., sand and gravel) were very limited in occurrence in the study area, thus the site is unlikely to house significant subsurface water flows. Test well drilling determined there are no significant aquifers present beneath WNC. It was concluded that yields for wells drilled into Gambier Group rock (the predominant formation at WOP site) would be relatively low.

2.1.4 Natural Hazards

Rockfall, debris flow and debris flood hazards were assessed in the detailed design period by Golder (2004). The ski jump location was moved from its original location to the current site to avoid these identified hazards.

Seismic hazards for WOP site could include ground shaking and associated damage to building and ancillary services, liquefaction of the soils underlying the site and coseismic hazards including rockfall (Golder 2004). As most of the site structures will be situated on gently or moderately sloping areas that are expected to be underlain by dense soils and/or bedrock, permanent displacements or settlements due to seismic activity should be minimal. In the low lying, poorly drained areas of the site that are underlain by soft silty soils and peat, or in areas underlain by loose sandy/gravelly soils (such as along Tributary A and Tributary B) the seismic hazard effects on performance of site infrastructure such as buildings and roadways/parking lots (if not properly designed for) could potentially include liquefaction and excessive settlements. In such areas, special foundation treatment (sub-excavation and replacement, or preloading) was undertaken to avoid excessive settlements or foundation failure during significant seismic

events. As the foundations and structures are designed to current standards, the seismic hazard associated with a 1 in 475 year earthquake (current seismic design standard) is low.

No landslides or large-scale rockslides have been observed at the site, and there is no evidence of previous snow avalanche activity. There is no avalanche risk currently identified or associated with the venue operations or the proposed recreation trail development.

2.2 Atmospheric Environment

2.2.1 Climate

The climate of the Callaghan Valley is strongly influenced by the surrounding mountainous terrain. The project site is situated within the Pacific Range of the Coast Mountains physiographic region and the Garibaldi Mountains hydrologic zone. Climate characteristics of the valley are dominated by a coastal precipitation regime that is modified by elevation.

The Whistler climate station shows mean annual temperature is 6.3°C for the period of record. Mean daily temperatures are generally above freezing from March to November, and range from about 18 °C in July to -6 °C in early January. Extreme maximum temperatures between 30 and 35 °C typically occur in July and August, with an extreme value of 38.2°C on July 26, 1998. Extreme minimum temperatures in the range of -20 to -25°C can occur from December to February. A record low of -29.2°C occurred on December 31, 1978.

WOP site is at a higher elevation than the Whistler climate monitoring location, and is expected to receive more precipitation. Studies on Powder Mountain, to the southwest of the park, show that the area receives up to 50% more snowfall than corresponding elevations in the Whistler/Blackcomb area due to the rainshadow effect reducing precipitation east of the Tantalus and Earle Ranges.

2.2.2 Precipitation

Precipitation has been measured in the Callaghan Valley at a BC Hydro precipitation monitoring station at elevation 800 m from 1992 to 2004. The data is summarized in Table 1. The 13 year annual average is 1999 mm.

Table 1 Precipitation Data Measured from BC Hydro Station, 1992-2003

Year	Precipitation (mm)
1992	1862
1993	1774
1994	1953
1995	2230
1996	1295
1997	2267
1998	2061
1999	2576

2000	1867
2001	2026
2002	1655
2003	2425
Average	1999

2.2.3 Snow Depth

The Province has conducted a manual snow surveys in the Callaghan Valley since 1976. The survey site (Callaghan Creek - Station #3A20) is located on the east side of the valley at an elevation of 1,040 m and lies within about 1 km from WOP and about 200m higher in elevation. Data from the snow course is available from 1976 to 1983 and 1985 to present. In most years, manual measurements of snow depth were made on the first of the month in January, February, March, April, May and June. For the period 1985 to 1990, monthly measurements were made in March, April, and May only. Average snow depth and water equivalent for the period of record is summarized in Table 2.

Table 2 Calculated Average Snowpack, Callaghan Creek 1975 to 2003

Average Snowpack Data from Callaghan Creek –		
Measurement Date	Snowpack Depth (cm)	Water equivalent (mm)
Jan	101	293
Feb	150	502
Mar	190	602
Apr	195	821
May	153	708
May	91	461
Jun	46	248

The data indicate average maximum snowpacks in excess of 800 mm (water equivalent) at the end of March. A maximum snowpack of 1,604 mm was recorded on March 28, 1999.

2.2.4 Air Quality

Air quality monitoring in the upper Sea to Sky airshed – of which WOP is a part – is sampled at the Meadow Park Sports Centre (8107 Camino Drive) in Whistler, BC by the Ministry of Environment's Lower Mainland Region's Ambient Air Quality Sampling Program. In December 2002, the Ministry of Water Land and Air Protection produced the *Ambient Air Quality Monitoring Report Whistler, British Columbia PM10 & Ozone 1997-2001*, a document that characterizes in detail the air quality regime. It is available at: http://wlapwww.gov.bc.ca/sry/p2/air_quality/whistler_rep.pdf.

2.3 Aquatic Environment

2.3.1 Surface Hydrology

The site lies within the Callaghan Creek Watershed (180 km²), which is located approximately 10 kilometres southwest of Whistler, British Columbia. Callaghan Creek (WSC 900-097600-12900-46000) is a tributary to the Cheakamus River, which flows south into the Squamish River before reaching the ocean at Howe Sound.

WOP is situated within the Madeley Creek sub-basin (42 km²) located on the northeast side of the Callaghan Creek watershed. The competition and Legacy trails are within the catchments of Madeley Creek (WSC 900-097600-12900-46000-3820) and Madeley Tributary 1 (also known as Tributary A). This tributary encompasses a small catchment (6 km²), representing 3% of the Callaghan Creek watershed and 14% of the Madeley Creek sub-basin. It originates from a small alpine lake upslope and east of the area.

A small tributary to Callaghan Creek (Tributary 2) flows through the southern portion of WOP site and also drains some of the Nordic competition trails. It encompasses a small catchment (upper portion of catchment is 2.3 km²), representing 1.3% of the Callaghan Creek watershed and an area equal to 5% of the Madeley Creek sub-basin. Callaghan Tributary 1 (with branches Anomaly Creek and McLeod Creek) has a total catchment of 13 km². The Legacy Trails lie in the catchments of at least three additional tributaries, including a headwater branch of Callaghan Creek. The latter drains from Callaghan Lake.

There is one tributary to Madeley Creek (Tributary 1) that flows through WOP site. The tributary encompasses a small catchment (6 km²), representing 3% of the Callaghan Creek watershed and 14% of the Madeley Creek subbasin. It originates from a small alpine lake upslope and east of the area.

2.3.2 Aquatic Habitats and Resources

Results of the FISS database search for Callaghan Creek identified the presence of rainbow trout and Dolly varden char/bull trout. No information was available from FISS about Madeley Creek; however, Madeley Lake has been stocked with rainbow trout. Based on the results of ENKON's (2004) field surveys, rainbow trout and Dolly varden char/bull trout were found in the Callaghan Creek mainstem up to the wetland (Wetland 1) located above Alexandria Falls. Although no fish were captured upstream of Wetland 1, fish are likely present as no barriers to upstream fish migration were observed during foot or helicopter surveys.

Physical investigations of fish presence were conducted during the environmental assessment process. A total of 12 fish, consisting of six Dolly varden char/bull trout and six rainbow trout were captured by minnow trapping in Madeley Creek mainstem to a gradient change northwest of WOP and in Tributary 1 of Madeley Creek to Wetland 2. An additional three rainbow trout were captured by electroshocking in Tributary 1 below WOP and in the outflow to Wetland 2. Although no fish were captured above Wetland 2, the upper portion of Tributary 1 that flows through the cross-country trails and along the southern boundary of the Ski Jump event site

potentially contain fish. All other streams within and adjacent to the Whistler Olympic Park are non-fish bearing due to gradients >20% and barriers to upstream fish migration, but they contribute food and nutrient values to downstream fish populations.

2.4 Terrestrial Environment

2.4.1 Vegetation

WOP site is located in the Coast and Mountains Ecoprovince, within the Pacific Ranges Ecoregion, and in the Southern Pacific Ranges Ecosection. The majority of the site (greater than 90%) lies within the Coastal Western Hemlock Southern Moist Submaritime (CWHms1) Biogeoclimatic variant. The northeast corner of the site, which constitutes approximately 10% of the total site, lies within the Mountain Hemlock Leeward Moist Maritime (MHmm2) variant.

Forests on zonal sites within the CWHms1 are typically dominated by western hemlock, Douglas-fir, western redcedar and amabilis fir. The most common understory species is Alaskan blueberry. Less common species that occur in this variant include black huckleberry, oval-leaved blueberry, falsebox, bunchberry queen's cup, five-leaved bramble and one-sided wintergreen. A well-developed moss layer, consisting of step moss, red-stemmed feathermoss and pipecleaner moss, usually is present.

Forests on zonal sites within the MHmm2 variant are dominated by amabilis fir and mountain hemlock, with western hemlock and subalpine fir occurring less commonly. Predominant shrub species include Alaskan blueberry, black huckleberry, oval-leaved blueberry and five-leaved bramble. White-flowered rhododendron may also be present. The moss layer is dominated by pipecleaner moss and red-stemmed feathermoss.

The area is within Western Forest Products Limited's licence area. It contains older forests, recently logged areas and sections that have been logged over the last ten to thirty years. Western Forest Products generally replants cutblocks with mixed stands during the first growing season post harvest. The species combination planted depends upon the biogeoclimatic variant. Planting in the MHmm2 variant consists of 60% amabilis fir, 20% yellow cedar and a

20% allowance for natural fill-in with western hemlock, mountain hemlock and amabilis fir. In the CWHms1 variant planting on northeast aspects consists of a mix of 60% amabilis fir, 20% western redcedar, 10% yellow cedar and a 10% allowance for fill in with western hemlock, mountain hemlock and amabilis fir. On southwest aspects the planting mix is 90% Douglas fir and 10% western redcedar.

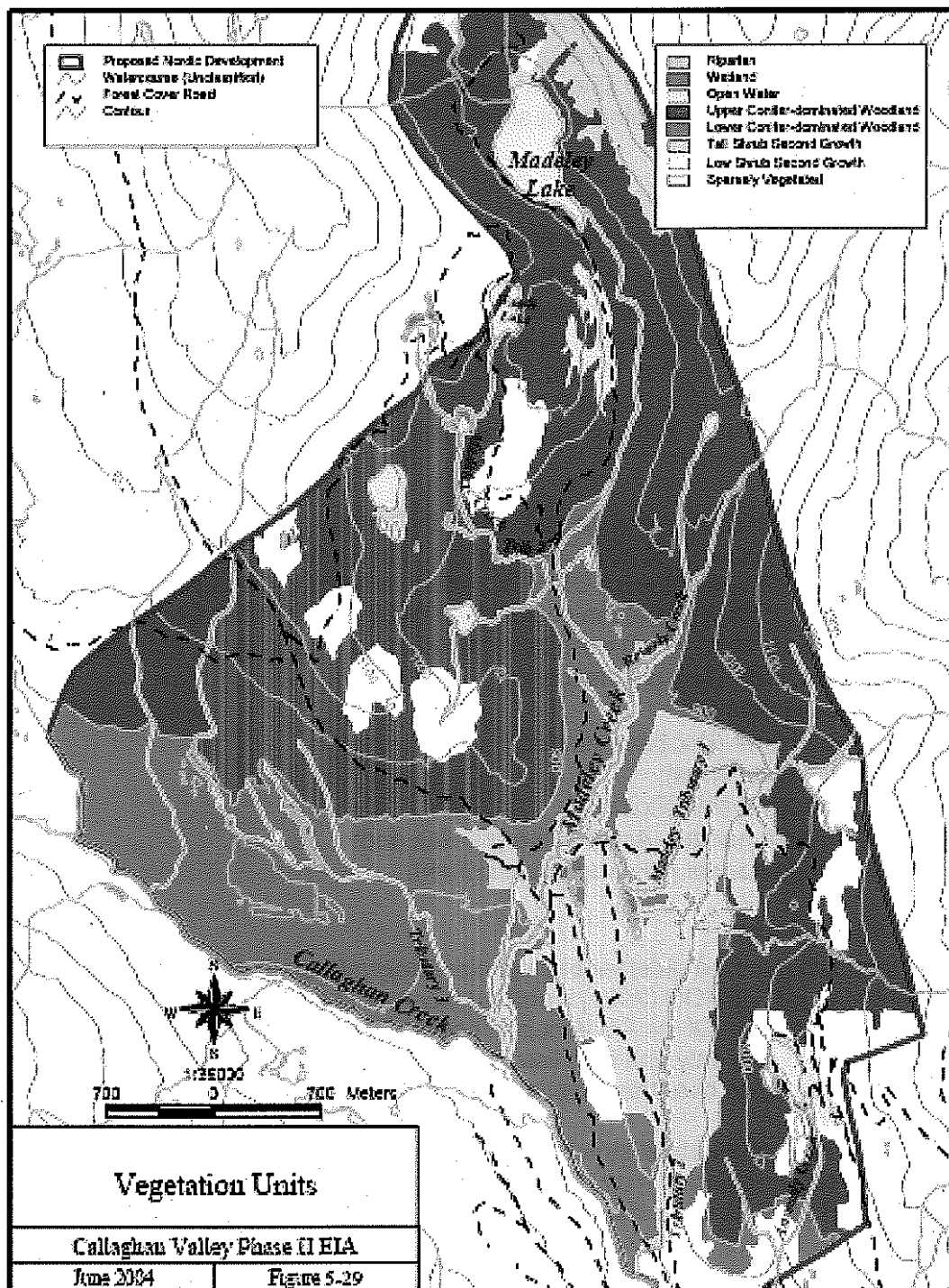


Figure 4 Vegetation at WOP

There are eight different vegetation communities represented within the Whistler Nordic

Centre site. They include riparian, non-forested wetlands, open water areas, upper elevation conifer-dominated woodlands, lower elevation conifer-dominated woodlands, tall shrub second growth, low shrub second growth and sparsely vegetated areas. Old growth forests (>250 years of age) are located all around the main event sites.

2.4.2 Wildlife

2.4.2.1 Rare or Endangered Wildlife Species

The provincial Conservation Data Centre (CDC) lists a total of thirty species that occur in the Squamish Forest District. Of these, seven are red-listed, eighteen are blue-listed and five are yellow-listed. Based on habitat requirements, approximately 20 red, blue and yellow listed species could occur within Callaghan Valley, while 15 of these species could potentially occur at WOP site. ENKON (2004) identified three red/blue listed species within or immediately adjacent to WOP including the blue listed Tailed frog, the red-listed Pacific water shrew, and the blue listed Dolly varden char/bull trout.

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) lists 197 species (plant and animal), which occur in British Columbia and have been evaluated for the degree to which they are at risk. Of the eighteen COSEWIC-listed vertebrate species that potentially occur in the Callaghan Valley, potentially seven could breed within the Whistler Olympic Park boundary. These species, all of which were determined to be "Not at Risk," include:

- American Black Bear (*Ursus americanus*);
- Lynx (*Lynx canadensis*);
- Sharp-shinned Hawk (*Accipiter striatus*);
- Merlin (*Falco columbarius*);
- Ensatina (*Ensatina eschscholtzii*);
- Northwestern Salamander (*Ambystoma gracile*); and
- Red-backed Salamander (*Plethodon vehiculum*).

2.4.2.2 Birds

While greater than two hundred different bird species likely migrate through Callaghan Valley during the spring and fall, ENKON (2004) identified fifty-four species on or immediately adjacent to the Whistler Olympic Park. Of the fifty-four bird species identified, no red listed bird species were observed or heard and only one blue listed bird species, the band-tailed pigeon (*Columba fasciata*) was observed flying over the Whistler Olympic Park.

Based on the vegetation and habitat structure of the Whistler Olympic Park, forty-seven (47) of the fifty-four (54) recorded species may potentially breed there. Nine (9) active and two (2) inactive (old) passerine nests were identified within the Whistler Olympic Park.

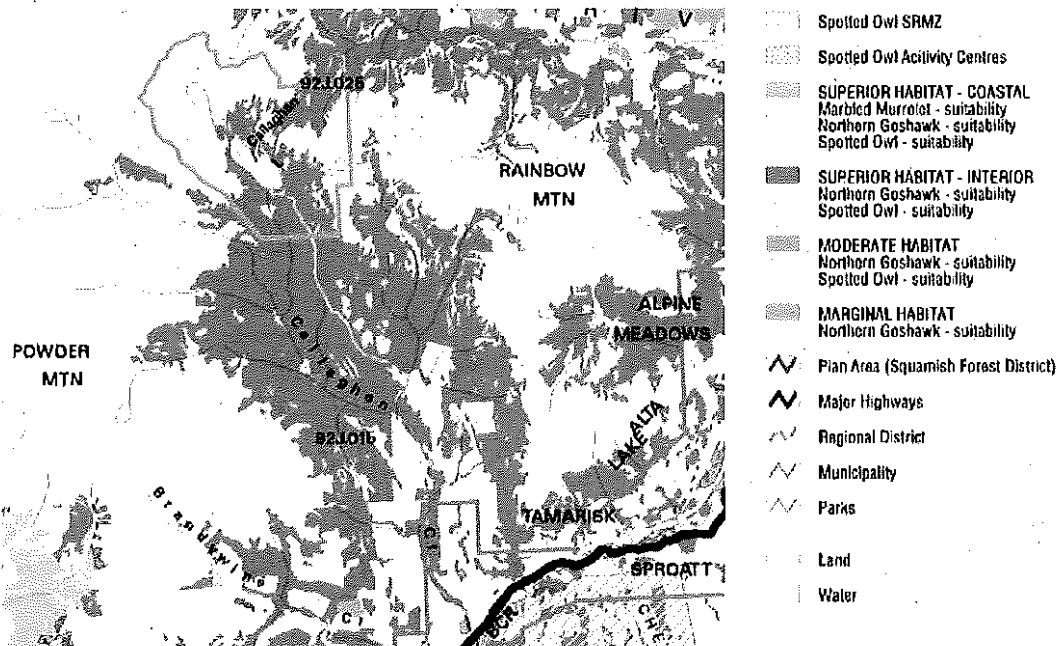


Figure 5 S2S LRMP Identified Wildlife Species of Concern, Birds: Mature/Old Growth Forest

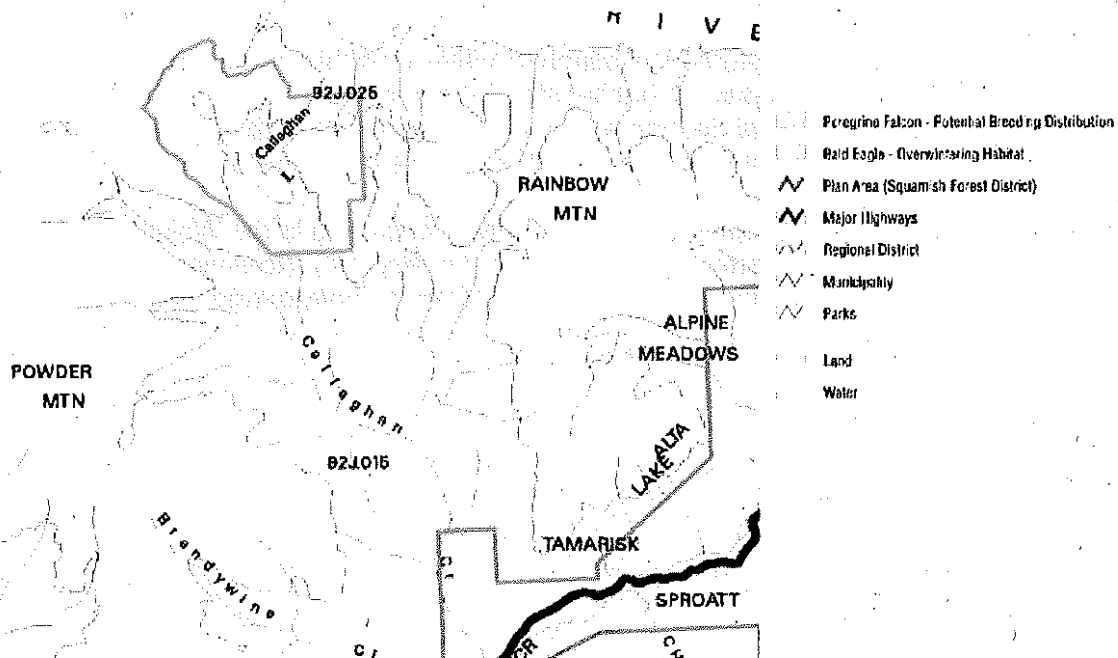


Figure 6 S2S LRMP Identified Wildlife Species of Concern, Birds: Additional Raptors

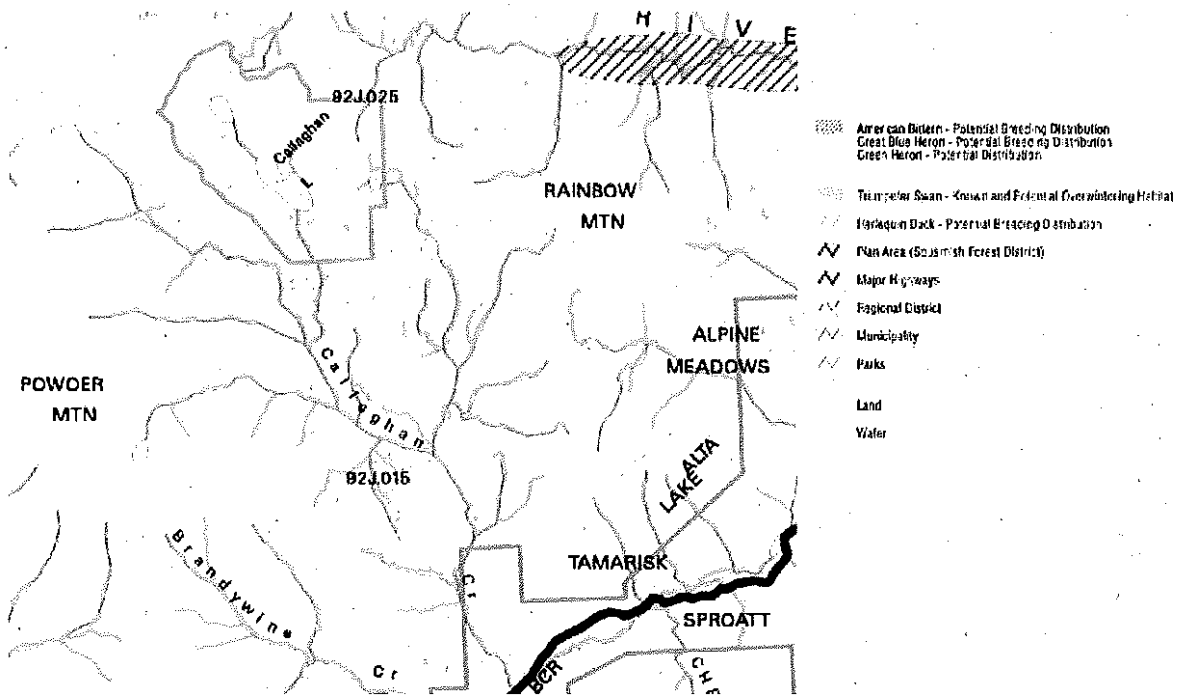


Figure 7 S2S LRMP Identified Wildlife Species of Concern, Birds: Other

2.4.2.3 Reptiles

No reptiles were observed or captured in Callaghan Valley or within or adjacent to the Whistler Nordic Venue (ENKON 2004) based on habitat structure, potential habitat for reptiles is associated with rock outcrops and riparian areas of Madeley Creek, Tributary 1 and Wetlands 1 and 2. In general, any exposed slopes to the south and west are preferred most by reptiles.

Based on the habitat structure, reptile species potentially occurring in the Whistler Olympic Park include the Western terrestrial garter snake (*Thamnophis elegans*), Northwestern garter snake (*Thamnophis ordinoides*), the yellow-listed rubber boa (*Charina bottae*) and the common garter snake (*Thamnophis sirtalis*).

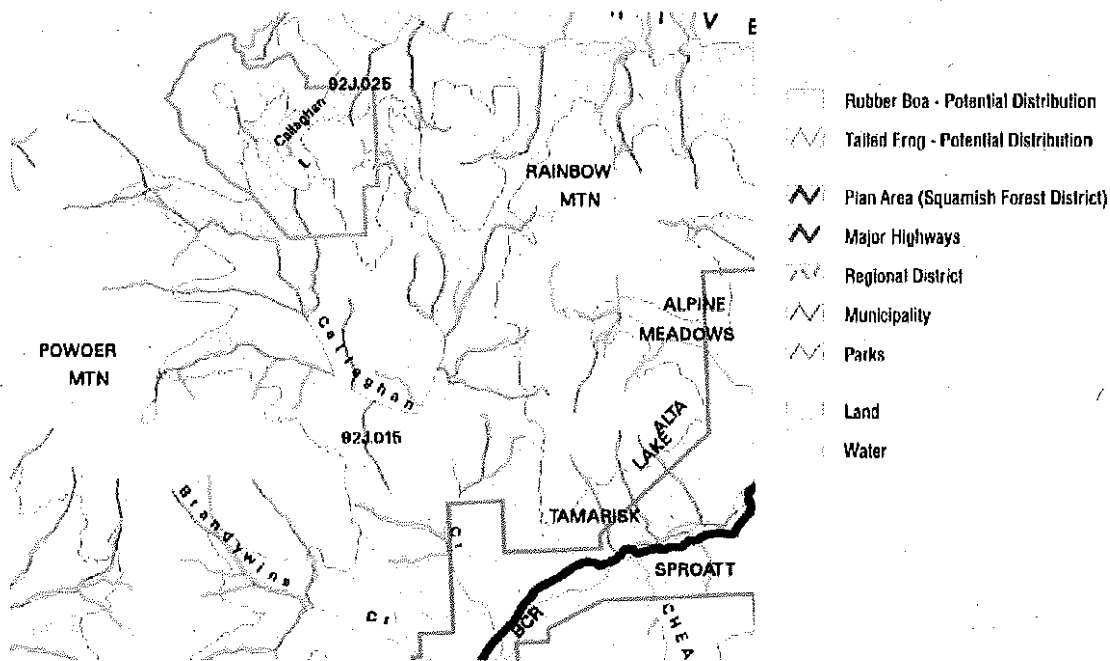


Figure 8 S2S LRMP Identified Wildlife Species of Concern: Amphibian and Reptile

2.4.2.4 Amphibians

Four species of amphibians were captured within the Whistler Nordic Venue site including the blue listed red-legged frog (*Rana aurora*), the red-listed Tailed frog (*Ascaphus truei*), the rough skinned newt (*Taricha granulosa*) and the northwestern salamander (*Ambystoma gracile*).

2.4.2.5 Mammals

The Sea-to-Sky Land Use Management Plan resource maps identify the majority of the lower Callaghan Valley (including the Whistler Olympic Park) as a medium grizzly bear/wolverine management priority area, while the area above the Whistler Olympic Park was identified as a high management priority area. Grizzly bears occur in relatively low densities across the majority of Callaghan Valley. Historically there have been sightings around Callaghan Lake and the campground but none in the venue area. Numerous black bear (*Ursus americanus*) scat were observed by ENKON throughout the site. This mammal is abundant throughout the valley and the Whistler area. Although no mountain goats were observed during ENKON's field surveys, goats have been observed around the southeast portion of Callaghan Lake. According to the Sea-to-Sky LRMP Base Case report, some of the largest discrete areas of goat winter range occur along Billygoat Creek, Cheakamus Creek, Garibaldi Mountain, Birkenhead Lake, Clendenning Creek, Lillooet River and Ryan River, all of which are outside of Callaghan Valley.

Sea-to-Sky LRMP resource maps do not identify any spring or winter deer range, deer migration corridors or moose winter range within Callaghan Valley. Based on the habitats present in the Whistler Olympic Park some common mammals that potentially may occupy the area include black bear (*Ursus americanus*), cougar (*Felis concolor*), and marten (*Martes americana*).

Common species of small mammals may be found throughout the forest environment surrounding the venues include the short-tailed weasel, (*Mustella erminea*), Douglas squirrel (*Tamiasciurus douglasi*), Northern flying squirrel (*Glaucomys sabrinus*), Snowshoe Hare (*Lepus americanus*), common shrew (*Sorex cinrius*), creeping vole (*Microtus oregonus*), deer mouse (*Peromyscus maculatus*), and dusky shrew (*Sorex monticolus*). Around riparian areas common species may include the Pacific water shrew (*Sorex paulustris navigator*, confirmed), deer mouse (*Peromyscus maculatus*), Pacific jumping mice (*Zapus princeps*) and the vagrant shrew (*Sorex vagrans*).

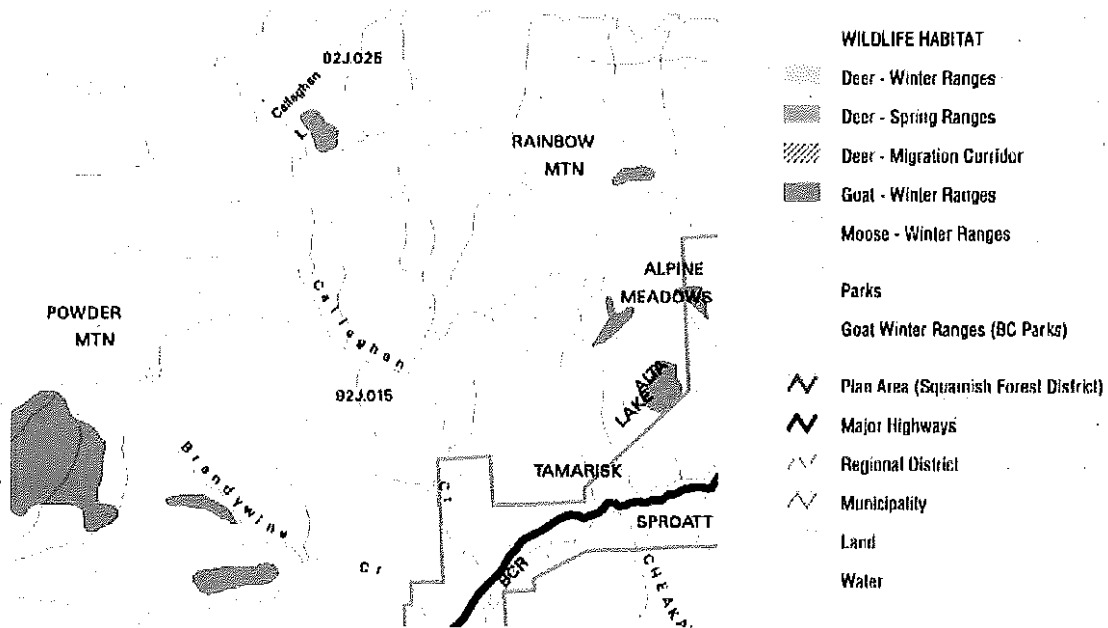


Figure 9 S2S LRMP Identified Wildlife Species of Concern, Mammals: Ungulates

2.5 Land Use Context

2.5.1 Existing Zoning

The Squamish-Lillooet Regional District now provides local government services in the venue area. The majority of the SLRD territory in the Callaghan is zoned rural 1 under bylaw 20. From Bylaw 675-1998, there is a portion that is zoned backcountry tourism 1. As an amendment to the Whistler South Official Community Plan (Bylaw 495-1994), Bylaw 692-1999 created SLRD area D subarea plans. The Callaghan Valley area is part of sub-area 4 and was designated a Special Study Area. Zoning is the responsibility of the regional district and VANOC filed for rezoning in the summer of 2004 to permit the construction and operation of the Olympic facilities.

2.5.2 Land Use Planning

2.5.2.1 Local Resource Use Plan - 1995

Currently the only land use planning document for recreation management in the Callaghan Valley is the Whistler Local Resource Use Plan (LRUP). The LRUP was completed in 1995 and signed off by the Resort Municipality of Whistler (RMOW), the Ministry of Forests, Squamish Forest District and the Ministry of Environment, Lands and Parks/BC Lands. WOP area extends into the Callaghan Valley (Zone 4) and the Madeley (Zone 5) LRUP areas.

The Callaghan Valley (Zone 4) covers only the lower two-thirds of the Valley and is described as a multi-use zone allowing motorized access on all roads. The resources in the zone are the Alexander Falls Forest Service Recreation Site, two small, unnamed lands and a series of ponds. Users identified within the zone include hikers, mountain bikers, picnickers, campers, snowmobilers, cross country ski tourers and commercial users. In addition the plan describes the snowmobiling use in the zone as primarily road based for access to areas beyond. The LRUP identifies increased recreation resources in the Callaghan Valley as desirable with limited use at the time of the study and great future potential use.

2.5.2.2 Land and Resource Management Plan 2007

In 2002 the Ministry of Sustainable Resource Management initiated a Land and Resource Management Planning (LRMP) process for the Sea to Sky Corridor. The Sea to Sky LRMP plan area covers the Squamish Forest District. The goal of the LRMP is to balance and integrate the use of public land, other than parks and protected areas, in the plan area – the administrative boundaries of the Squamish Forest District.

Land and resource management plans (LRMPs) are sub-regional integrated resource plans that seek to create a vision for the use and management of public provincial lands and resources. Their development requires the involvement of people representing a wide range of interests and values. LRMPs contain broad strategic objectives that balance the well being of communities, the economy and the environment. They incorporate sustainable solutions and management direction for the benefit of present and future generations. Currently the LRMP table has completed recommendations to government but these have not been formally accepted, and the LRMP remains outstanding.

2.5.2.3 Squamish Nation (Xay Temíxw) Draft Land Use Plan

The Squamish Nation (2001) completed an interim land use plan for their traditional territory, which includes the Callaghan Valley. The purpose of the land use plan is to determine and describe the community's vision for the future of the forests and wilderness of the traditional territory – how the land and resources should be protected, managed and utilized for the benefit of present and future generations. The plan is an exercise of governance by the Squamish over their traditional territory and is intended to provide direction regarding current land uses. The results are without prejudice to negotiations under the treaty process and do not constitute an abrogation or derogation from Squamish Nation aboriginal rights or title.

This is a strategic land use plan that deals with broad land allocation and resource management direction. It does not address the many landscape-level and site-specific concerns and issues within the Squamish Nation territory. A second, more detailed phase of planning is needed to examine specific resource values and concerns within individual watersheds of the traditional territory. This plan is also not a land use and occupancy study. Much more research is required to accurately map the detail of how the Squamish people have lived on, traveled in and used their traditional territory over the centuries.

The plan was produced within the context of an already dramatically altered landscape. The land use choices made in this plan reflect this situation; they are based on what is available today, as well as upon traditional use patterns. They also reflect an intention to restore health to areas that have been degraded by industrial logging, pollution, erosion and other impacts of development.

Objectives and strategies of the Xay Temíxw Draft Land Use Plan include the following:

- Protect Archaeological and Traditional Use Sites in the Squamish Nation Traditional Territory.
- Ensure the Nation has secure and exclusive rights to the cultivation and harvesting of non-timber forest products (nutraceutical and botanical) based on Squamish Nation traditional knowledge.
- Maintain the abundance and diversity of all native species of wildlife throughout the traditional territory.
- Provide opportunities for timber harvesting while ensuring that other values, such as cultural heritage and traditional use and biodiversity conservation, are not compromised within the traditional territory.
- Maintain, rebuild or enhance salmon stocks to historic levels.
- Maintain and restore opportunities for hunting and trapping by Squamish Nation members.
- Provide opportunities for Squamish Nation members to participate in tourism development, particularly cultural tourism and ecotourism.
- Ensure a clean, safe and reliable supply of water for all Squamish communities and residents.
- Ensure that roads on reserve are maintained to a safe standard.
- Provide opportunities for Squamish members – especially youth and children – to experience the land and their culture in a natural setting.
- Create jobs and economic development opportunities for Squamish people.

2.5.2.4 Lil'wat Land Use Plan: Phase 1

In August 2006, the Lil'wat Nation released Phase 1 of their land use plan (LLUP) to the public for review (available at www.lilwatnation.com). The land use plan applies to lands contained within the Traditional Territories as delineated in 2003. The document is a planning tool for staff and Council to make better informed decisions at a strategic level. The document outlines a series of management strategies for the biophysical and socio-cultural components of the land. The LLUP lands are organized by watershed units. The study area falls within the Cal-Cheak

watershed unit. Under the LLUP this unit has a preferred land use designation as Conditional Economic Development Area.

The Scwálem (Callaghan) watershed is described in the LLUP as containing food harvesting, mineral extraction and vision questing areas. Scwálem is also used for hunting, trapping, and fishing. The area also contains extensive old growth forests, a village site, rock art and culturally modified trees (CMTs).

The 2010 Olympic Games and legacy activities are recognised in the LLUP along with the potential economic opportunities that may arise for the Lil'wat Nation. The LLUP identifies industrial logging and mining as being incompatible with tourism-focused land uses. At the same time the LLUP accepts "environmentally and culturally sensitive forms of land development that may provide benefits to the Lil'wat Nation".

2.5.3 Historical Land Use

The main part of the Nordic Centre incorporates a large cut-block (approximately 330 ha) that was logged between 1975 and 1977. Ground based harvesting methods were used for logging and a number of skidder trails dissect the area. In general, these skidder trails have disrupted natural drainage paths and disturbed sensitive soils adjacent to wetland areas. A smaller area (24 ha) located upslope and east of the area was logged in 1996-97.

Other development in the immediate area includes the Northair Mine, situated about 1.5 km southeast of WOP. Northair Mines operated an underground mine at this location from 1974 to 1982. The mine processed approximately 477,000 tonnes of ore, recovering silver, gold, cadmium, copper, lead and zinc. Tailings from the mine were deposited in Northair Lake, which was modified with a tailings dam along its eastern edge. A settling pond is located near the southern end of the dam to collect groundwater seepage from the impoundment. The southern end of the settling pond has a small earthen dam with a wooden flume and culvert at the top. Northair Lake drains into North Anomaly Creek before reaching Macleod Creek and Anomaly Creek below the mine road.

2.5.4 Current Land Use

2.5.4.1 Commercial and Recreation Use

The Crown Land Administration Division of the Ministry of Agriculture and Lands (formerly known as LWBC) reports the following commercial recreation tenures in the Callaghan Valley as of March 2004 (most recent data on their web-site):

- 2402463 – Callaghan Country Wilderness Adventures
- 2407109 – Canadian Snowmobile Adventures
- 2408006 – Compass Adventures
- 2407807 – Whistler Backroads Mountain Bike
- 2401194 – Whistler Heli-Skiing
- 2407195 – Blackcomb Helicopters

Recreational activities currently taking place in the Callaghan Valley include Nordic skiing, snowshoeing, snowmobiling, ski-touring, hiking (and mountaineering), mountain biking, ATV/dirt biking, 4x4-ing and camping. The Squamish Nation Aboriginal Interests and Use Study (AIUS) estimates current total year round recreation visitation at approximately 38,876, with winter activity dominating at 34,843 visits (Westland Resource Group *et al.* 2004). Summer visitation is estimated to be much lower at 4,033 visits.

Snowmobiling

The disproportionately high winter recreational use of the Callaghan Valley can be attributed largely to snowmobiling. The majority of that snowmobile use does not have the Callaghan Valley as its destination. Rather, the valley is a gateway and travel corridor to and from the Pemberton Icecap north of Callaghan Provincial Park (part of "Around the World" route). Both the public and commercial recreation operators use this route. Currently, the Icecap is accessed from both the Brandywine and Callaghan Valleys, with the preferred route being up the Brandywine. However, a fee for use system imposed in 2006 at the Brandywine portal resulted in increased use of the Callaghan Valley, totalling an estimated 10,000 trips (Cascade 2007).

Commercial recreation operators Canadian Snowmobile Adventures and Callaghan Country offer trips on the east side of Callaghan Creek, and Blackcomb Snowmobile operates on the west side. The commercial operators generate approximately 9,828 snowmobile days annually (Cascade 2007).

Nordic Skiing

A Nordic skiing trail system was established by Callaghan Country, which operates a staging area/warming hut on the west side of Madeley Creek near WOP. Callaghan Country did not provide visitor numbers, but Cascade (2007) considered them to be limited given the access and accommodation provided at that time.

Hiking

The hiking designation includes a variety of activities carried out on foot. These activities include bird watching and nature viewing, mountaineering, ski-touring and snowshoeing, picnicking and sight seeing.

The primary hiking area in the Callaghan Valley is the Rainbow-Madeley Trail, which originates in Whistler and enters the Callaghan valley from the east side. Madeley Lake is one of the destinations on this hiking route. The current estimate for public hiking in the Callaghan Valley is less than 5000 day visits (Cascade 2007).

Two tenured commercial recreation operators, Compass Adventures and Whistler Backroads, currently offer hiking trips in the Callaghan Valley. In 2002, the total recorded commercial hiking client visits was 235 (Cascade 2007).

Snowshoeing occurs predominantly on the Rainbow-Madeley Trail. The Flank trail and some of the Nordic trails maintained by Callaghan Country also are utilized. User numbers on the Rainbow-Madeley and Flank trails are hard to establish but believed to be low due to the distance of travel required to access the trails from Whistler. The total number of visits by the snowshoeing public is estimated at less than 200 per year (Cascade 2007).

Callaghan Country is the only commercial recreation operator that presently offers snowshoeing in the Callaghan Valley. The total client day visits for 2002 reported to Land and Water BC (LWBC) is not known, as the numbers were combined with other non-motorized activities (Cascade 2007).

Mountain Biking

Mountain biking currently takes place along the forest service roads, wilderness roads and Flank Trail. The current estimate of annual mountain bike use by the public is 1125 visits (Cascade 2007).

Two commercial recreation operators, Compass Adventures and Whistler Backroads, presently offer mountain biking trips in the Callaghan Valley. Guest days for the 2002 season reported to LWBC totalled 209.

Dirt biking, ATV's and 4X4's

The level of public dirt biking, ATV and 4X4 use is currently unknown (Cascade 2007). However, this sector appears to be growing in popularity. Periodic use is expected to occur in isolation of other activities like camping, sight-seeing, or hiking.

Whistler ATV and Canadian Snowmobile Adventures are the two companies that currently offer ATV tours in the Callaghan valley. LWBC-recorded annual visits totalled 3,199.

Forest Recreation Sites

There are also two Forest Recreation Sites (FRS) located in the valley, one at Alexander Falls and one at Madeley Lake. Each FRS offers six camping sites. Alexander Falls is on Madeley Creek downstream of the potable water intake for WOP. Madeley Lake is the headwater of Madeley Creek.

Kayaking and Canoeing

Kayaking and canoeing occur on Callaghan Creek and Callaghan Lake. In 2003, 313 kayak trips were recorded as originating from a traditional kayak put-in located on west bank of Callaghan Creek (Cascade 2007). In 2006, approximately 500 trips originated from a new put-in on the east side of the creek (Cascade 2007).

There are no statistics for recreational water uses on Madeley Creek. However, a disused boat ramp on Madeley Lake suggests historic use, and canoeing is a current possibility. Kayaking in Madeley Creek is also possible, but kayaking opportunities are limited by shallow water and an abundance of boulders.

Fishing

Local sportsmen and visitors periodically fish in Madeley Lake. Estimated fishing days in the Callaghan Valley (including fishing on Callaghan Lake) are in the range of 300 annually, based on discussions with local fishing guides (Cascade 2007).

2.5.4.2 Forestry

Forestry is the major economic activity and the most intensive land use in the Callaghan Valley today. The Callaghan watershed is one of the largest in the Soo Timber Supply Area (TSA). It can be accessed via Branch 01 of the Callaghan Forest Service Road (FSR). The Ministry of Forests provides management of the provincial forest. Western Forests Products (WFP) is the licensee in the area and maintains an active logging operation (Timber License T0830 and Forest License A19216 Chart 2 in the Callaghan watershed).

Logging began in the Callaghan Valley in the 1950s. Since then, more than 2,100 hectares have been harvested. No floodplain has been harvested and there have been no post-logging landslides. This area is now considered one of the most significant multiuse recreation areas in the Soo Timber Supply Area and the Vancouver region. The Report of the Callaghan Lake Study Team mirrors this assessment, as does the Whistler Local Resource Use Plan. On October 28, 1996 it was announced that 2,600 hectares of the Callaghan area would become a provincial park as a result of the Lower Mainland Protected Area Strategy (PAS). The remainder of the watershed remains under provincial forest designation.

With the announcement in 1998 of a Vancouver-Whistler 2010 Olympic Bid including a Nordic Centre in the Callaghan watershed, concerns and issues were identified regarding 16 proposed or approved WFP blocks. The preliminary Callaghan Nordic site plan was considered in the preparation of the 2001–2005 WFP Forest Development Plan (FDP). Logging activity in the Callaghan Valley in the area of the Nordic Centre has been voluntarily deferred by WFP during the Olympic planning process.

Forestry operations currently co-exist with recreation in the valley. Forestry occurs in the wooded slopes of the Callaghan Creek valley at approximately 1,000 metres. WFP operates on both the east and west side of the Callaghan Valley and approximately 30,000 cubic metres of timber are harvested annually by Lizzie Bay Logging under contract with WFP. In addition to the Forest Practices Code of BC Act and the Whistler Local Resource Use Plan, WFP manages its forest practices according to the 1999 Joint Agreement for Co-operative Forestry/Olympic planning of the Callaghan Valley. WFP has demonstrated that it is willing to pursue best management practices within the Callaghan Valley.

WOP area incorporates a large cutblock (approx. 330 ha) that was logged between 1975 and 1977. A smaller area (24 ha), located upslope of the site was harvested in 1996-1997.

2.5.4.3 Mining

Northair Mine is a mineral tenure in the Callaghan valley that was authorized under the Ministry of Energy and Mines permit M-109 from 1975 to 1991. The company is headquartered in Vancouver. The Chief Inspector of Mines closed permit M-109 in 1991, and refunded the reclamation bond to Northair, based on recommendations of ministry staff that the reclamation for this mine had met the standard of that time. The Northair Mine had a substantial economic impact when it was in operation from 1976 to 1982. It is currently dormant but may be reopened if gold prices increase to a point where operations would be profitable.

The Olympic site does not overlap the existing mineral claim, but the post-Game recreation operation might use and access the Northair area. The claim holder has expressed interest in working with the VANOC including offering the option to utilize the mine's water reservoir on site for venue fire protection. The Ministry of Energy and Mines completed an on-site inspection and determined there are no public safety or public health concerns with the site. The mine has been closed in accordance with its permit requirements and the site is in good standing. The Ministry of Energy and Mines also established a non-staking reserve (NSR) during the master plan process to avoid any new claims being established in and around the venue areas.

2.6 Socio-Community Conditions

2.6.1 Demographic Profile

The estimated 2003 population of the Squamish-Lillooet Regional District (SLRD) was 35,179. Of this total, approximately 27% (9,480) live in the Resort Municipality of Whistler (RMOW). Although precise population figures are not available for the Pinecrest Estates sub-division and the Blacktusk Village sub-division (which are located about 1.1 km apart in Area D of the SLRD approximately 9.8 km and 8.7 km respectively south of the Callaghan Valley Forest Road turnoff), based on the number of homes and the average 2001 Census household size of this area (i.e., 1.5), the population of Pinecrest is estimated at 165 (110 homes x 1.5 people per home) while the population of Blacktusk is estimated at 140 (93 homes x 1.5 people per home). Combined, the residents of these two subdivisions represent just under 1% of the total SLRD population (Grant Thorton 2004).

The two First Nations with an interest in WOP project include the Squamish First Nation and the Lil'wat Nation. As of May 2004, the Squamish First Nation had a population of 3,375. Of this total, 2,225 live on Squamish First Nation reserve land. By comparison, the Lil'wat Nation had a May 2004 population of 1,832, of which 1,295 live on Lil'wat Nation reserve land. While it is not known exactly how many members of these First Nations live outside the SLRD, the 2001 Census indicated that 11.2% of the total SLRD population were of Aboriginal heritage. Applying this percentage to the 2003 population estimate of 35,179 suggests that there are currently about 3,940 people of Aboriginal heritage living in the SLRD.

Projections prepared by BC Stats suggest that between 2003 and 2025 the population of the region will increase by 86% rising from just over 35,000 to more than 65,000. Between now and 2025, the percentage of the SLRD population represented by children and young adults is projected to decrease, while the percentage represented by middle-aged and senior adults is projected to increase.

2.6.2 Employee Housing

The construction of WOP has the potential to affect demand for short-term employee housing while the operation of the project is expected to affect demand for commercial or visitor accommodation – especially in the RMOW. This section provides information on the RMOW's current employee and commercial accommodation profile.

The RMOW has been making a significant effort to address the issue of inadequate employee housing – something the Whistler Housing Authority (WHA) identifies as the most significant challenge facing the community over the past 15 years. Through the establishment of an Employee Housing Fund, the WHA has been working to create an inventory of price controlled rental and owned units that are available to employees who have worked in Whistler for more than one year. As of 2004, this inventory included 1,429 properties representing 4,300 beds. In addition to this inventory, employees who have not worked in Whistler for one year (and, therefore, are not eligible to access this inventory), have access to uncontrolled rental units. According to the WHA, this rental pool tends to dry up during the winter ski season. However, during the summer (April to September), which is also when most construction activity occurs, there is typically lots of rental units available.

The Whistler 2020 Development Corporation, in conjunction with VANOC, is currently constructing the Whistler Athlete's Village in Whistler. After the Games, the 478 housing units built will become the first homes in a Legacy Neighbourhood. Additional phases may be developed in the future, dependant upon resident housing needs and RMOW priorities.

2.6.3 Transportation Profile

Access to the Callaghan Valley is via the 8.3 km Callaghan Lake Forestry Road that exits Highway 99 approximately six km north of Brandywine Falls Provincial Park. At present, construction of a paved road is replacing a gravel one, which is actively used (i.e., 900 to 1,000 truck trips annually) by logging trucks during logging season. Between the Highway 99 turn-off and WOP site, the road intersects with five other logging roads. At the location of the access road turn-off, Highway 99 is a two-lane road with shoulders that are several feet in width.

There are no residences or other buildings in the vicinity of the Callaghan Valley Forestry Road turn-off which suggests that pedestrian safety issues in this area are minimal. However, there are safety concerns associated with Highway 99 access and egress from the Pinecrest Estates and Blacktusk Village sub-divisions due to the high volumes of traffic in these areas – especially during the morning and evening commutes. The Ministry of Transportation is currently working with area representatives, as part of the Sea-to-Sky highway upgrading project, to identify options for addressing these traffic concerns.

The rail line largely parallels Highway 99 crossing from the west to the east side near Brandywine Falls and then crossing back to the west side just south of Westside Road near Sproatt. At the Callaghan Valley Forestry Road turn-off, the rail line runs immediately east of Highway 99.

2.6.4 Community Service Profile

Policing services in the RMOW and surrounding area are provided by both municipal and provincial Royal Canadian Mounted Police (RCMP) resources. At present, there is one provincial RCMP officer who is responsible for policing the rural area outside the RMOW boundary and 22 RCMP officers who are responsible for policing in the municipality. These officers have access to 11 police vehicles. All 23 officers and seven municipal support staff work out of the detachment located in the public safety building across from municipal hall in the village. If required, the municipal officers provide policing support to the provincial officer. In the case of a major crime or the need for a dog team, etc., these local officers are supported by provincial RCMP headquarter resources from Vancouver.

As WOP is located between the jurisdictions of RMOW and the SLRD, fire fighting and search and rescue services are shared. Whistler is provided by the Whistler Fire Rescue Service. At present, the Fire Rescue Service has 20 career staff plus 60 paid, on-call staff, for a total staff complement of 80. These staff work out of three firehalls. The main firehall is located in downtown Whistler. All 20 career staff plus 20 of the on-call staff work out of this hall which has three emergency vehicles including a Quint with a 65" elevating device, a 95" aerial platform truck, and a rescue truck which stores gear for responding to motor vehicle accidents. The second firehall is located north of Whistler near the Alpine sub-division. Twenty of the on-call staff work out of this firehall which has an engine and a compressed air foam system truck. The third firehall, and the one closest to the Callaghan Valley, is located at the Spring Creek subdivision. Twenty on-call staff work out of this firehall which has two engines. The Garibaldi Volunteer Fire Department provides fire protection services (not accident response services) for a specific area of the SLRD extending from Brandywine Provincial Park to the salt sheds at Cheakamus Canyon. The Garibaldi Fire Department firehall is located at the entrance to the Blacktusk Village sub-division. Staff resources include 20 volunteer fire fighters while equipment resources include a one ton compressed air foam truck, a tanker truck with crew cab, and a small portable foam rig that can be transported into rural/non-roaded areas (e.g., by ATV). The Whistler and Garibaldi fire departments have a mutual aid agreement to assist each other as necessary.

Key healthcare services in Whistler are provided by the Whistler Health Centre which is located in Whistler Village North. In addition, there is a walk-in clinic in the village. The Health Centre includes an urgent care department, lab and x-ray services, and doctors' offices. There is a helipad for air ambulances immediately adjacent to the health centre. Both ambulance service and doctors are on call 24 hours a day. The Centre provides short-term emergency care only so anyone requiring overnight care is transported to Squamish or Vancouver. The Centre also houses the Vancouver Coastal Health Unit which provides a range of community services including environmental health, public health, alcohol and drug, mental health, home care

nursing, counselling and clinics. The Centre serves records about 23,000 patient visits annually and this number has generally been stable (Grant Thornton 2004).

2.7 Socio-Economic Conditions

2.7.1 Regional Economic Overview

Historically, forestry was the main industry sector in the SLRD and the direct and spin-off employment generated by this sector helped contribute to the relatively high standard of living enjoyed by residents in this region. However, over the last few years, the role of the forestry sector in the economy has declined while the role of the tourism sector has become increasingly important largely due to the success of Whistler.

Table 3 Squamish Area Income Dependency Trends

Sector	Proportion of Income (1981 Ratios)	Proportion of Income (1988 Ratios)	Proportion of Income (2001 Ratios)
Forestry	15%	14%	12%
Mining, Fishing, Agric.	1%	1%	1%
Tourism	14%	26%	39%
Public Sector (All levels)	17%	20%	21%
Other Basic Industries ^a	16%	23%	17%
Transfer Payments (EI, SA, OAP etc.)	25%	16%	9%
TOTAL	100%	100%	99%

2.7.2 Tourism Profile

The RMOW is one of the premier resort destinations in the world. In 2003, the community had 115 hotels, condo-hotels and B&Bs offering more than 5,418 rooms. In addition, it has approximately 93 restaurants/lounges/bars, 207 retail shops, a full range of community services, world-class golf courses, 200+ trails, 33 ski lifts, and a lift capacity of over 59,000 skiers per hour.

Visitor numbers to Whistler has dropped every year for the past four years reflecting an overall four-year decline of approximately 19%. By comparison, the amount of room revenue increased for the 1999 to 2002 period (although by smaller percentages each year), before dropping by 6% in 2003. In general, the reason that visitor levels can decline while room revenues increase is due to increased room rates. While it is likely that a range of factors have contributed to the decline in the number of visitors to Whistler over the past few years (e.g., economic downturn in Asia, SARS), overall, global geopolitical stresses are believed to be largely responsible. At present, however, statistics suggest that travel activity patterns are beginning to return to more healthy levels and it is anticipated that the SLRD and Whistler will benefit both from the increased profile of the region resulting from the 2010 Games as well as from the increased priority that travellers are placing on the safety level of their travel destination. However, in light

of the recent economic challenges faced by travel destinations around the world, it is also anticipated that competition for market share will become increasingly stiff (Grant Thornton 2004).

The income contributions of tourism and forestry (excluding wood products manufacturing) were quite close in 1991 contributing an estimated 14% and 15% of annual community income respectively. However, between 1991 and 2001, a significant shift in dependencies occurred with the percentage of income generated by the forestry sector falling to 12% and the percentage of income generated by the tourism sector increasing to 29%. The proportion of income generated by other primary industries and the public sector has been fairly stable while some increase has occurred in the proportion of income generated by "other basic industries". What is particularly notable about the figures in this table is the significant decrease that has occurred in the proportion of income generated by transfer payments which declined from 25% to 9% over this ten-year period. While some of this decline is likely due to changes in eligibility requirements for EI and SA, it is more likely that this change is indicative of a healthy economy and a strengthening job market (Grant Thornton 2004).

The ongoing expansion of the role of the tourism industry in the SLRD is largely attributable to the growth of Whistler which is the primary destination of most visitors to the region. However, Squamish also offers a range of high quality outdoor activity opportunities (e.g., rock climbing, windsurfing, mountain biking, golfing, rafting, etc.) and has been working for several years to brand itself as the "Outdoor Recreation Capital of Canada". As such, the community has become a recreation destination in its own right.

In general, it is reasonable to anticipate that the economy of the region will be quite strong over the years leading up to the Olympics and that this strength will be reflected in a strong demand for real estate (at least in the short- to mid-term) and continuing emphasis on recreation and tourism (Grant Thornton 2004). Over the longer-term, a continuing increase in dependence on the tourism sector has implications for the economy of the SLRD. In particular, such a trend can generate employment and income challenges around the seasonal and entry-level nature of many tourism and recreation jobs. Overall, the continuing growth and stability of the population of the area will be dependent on the availability of suitable employment both for people who need "family income jobs" as well as for students and other residents looking for seasonal and/or entry-level positions.

2.8 First Nations Setting

Both sides of the Callaghan Valley lie within the traditional territories of the Lil'wat and Squamish First Nations. Members of both First Nations groups traditionally have hunted and trapped in the area. The Squamish Nation's (Xay Temíxw) draft Land Use Plan identifies four candidate Wild Spirit Places, including Payákentsut (West Callaghan). Payákentsut encompasses 10,224 ha and contains one of the largest areas of unprotected old growth forest in the Cheakamus River valley.

The Squamish First Nation has stated that they want and need to have greater participation in the economy of their traditional territory and the Chief and Council have established a

committee to address the issue of economic development. The Squamish First Nation generates revenue from various sources, primarily in the form of lease and taxation revenues from business developments operated by other parties and located on Squamish Reserve Lands. Following is a brief summary of the current key economic activities of the Squamish First Nation:

- Government, the VANOC, and the Lil'wat and Squamish Nations and addresses issues around economic development, training opportunities, the Cultural Centre and other facilities
- A 51% interest in New Haven Construction which has been involved in various large-scale projects such as the Rapid Transit Expansion.
- Leaseholder to various developed land parcels which currently hold, for example, the following operations: South Park Royal Shopping Centre, Mosquito Creek Marina; Canadian Superstore and Gas Bar; golf driving range; and, various locations of commercial development.

The population of the Lil'wat Nation has been growing at a rate of about 6% annually and this growth significantly exceeds any comparable increase in employment opportunities. The Nation continues to deal with high rates of multi-generational unemployment that, in turn, has led to a range of social issues. Recognizing the urgency of addressing these issues, the Nation completed a human resource development strategy in 2001 that highlights how important it is that the community have access to a trained and educated workforce in order to take advantage of economic development initiatives. At present, the primary economic activities of the Nation revolve around Creekside Resources Inc. (CRI) which is a wholly-owned business of the band. CRI was established to create economic development and employment opportunities in the natural resources sector, and to protect the Lil'wat's interests in their traditional territories. The company employs about 80 seasonal workers who are engaged in a range of economic activities including, for example, woodlot management, Ministry of Forests recreation site management, a rock quarry business and coordination of watershed restoration. As noted above, the Lil'wat Nation and the Squamish First Nation have a protocol agreement and, among other economic initiatives, will be working together on the development of the Squamish Lil'wat Cultural Centre in Whistler.

2.8.1 Traditional Use and Aboriginal Rights/Title

The following are summarized from the *Lil'wat Traditional Use of the Callaghan Creek Watershed* prepared by Creekside Resources Inc. (2002a) and *Squamish Traditional Use Study* prepared by Yumks and Reimer (2002). Confidential *Aboriginal Interest and Use Studies* also were prepared for the Squamish and Lil'wat First Nations in 2004 respectively, as required by the Environmental Assessment processes.

2.8.1.1 Lil'wat First Nation Traditional Use

The Traditional Use Study (TUS) was designed to collect information about Lil'wat cultural uses and values and heritage values as they pertain to the Callaghan Valley watershed.

On May 10th, 1911 the Lil'wat Nation, together with the other St'at'imc Nations, put in writing that, "we are the rightful owners of our tribal territory, and everything pertaining thereto", (Declaration of Lillooet Tribe 1911). In 1998, in response to concerns about overlapping territorial claims by neighbouring First Nations in the treaty process, the Mount Currie Band Council published a traditional territory map documenting the extent of Lil'wat Traditional Territory. The tribal territory documented in the ethnographies incorporates this map, including the Callaghan Valley watershed.

The study data were derived from a number of sources including:

- Ethnographic literature
- Baseline Lil'wat Traditional Use Study database
- Maps and ground truthing records
- Trap line records

According to Creekside Resources (2002a)

The review of these resources establishes a strong historic Lil'wat presence in the area surrounding the Callaghan Valley. No references to use within the watershed itself were located. Historic usage is indicated in several ways. The primary evidence is provided by nineteen Lil'wat language place names in the area surrounding Callaghan Creek. Place names are powerful indications of aboriginal peoples' use of the land. The act of naming a place demonstrates that Lil'wat people knew the landscape well. Physiographic features such as creeks, mountains, mountain passes and glaciers are known and named. Intimate familiarity of Lil'wat people with places in the area is demonstrated by the division of Whistler Mountain into several named parts.

Places are also named for their function. Characteristics of locations also provide names, for example "Swampy Lake". The Callaghan Traditional Use Map shows that Callaghan Creek is imbedded in a network of Lil'wat place names surrounding the watershed. In addition to the 11 names mapped, there are eight other Lil'wat names applying to the region that are not mapped.

The Mount Currie people traditionally trapped in the area. While a Mount Currie band member does not hold the current trap line registration for the Callaghan area, the trap line records indicate that Lil'wat people actively trapped nearby watersheds in the past. The Pemberton Company of Indians had a group trap line that included Billy Goat Creek. Creekside Resources (2002a) surmised that trappers may have accessed the Whistler area, including Callaghan Creek, by travelling through Billy Goat Creek. Prior to establishment of Highway 99, transportation patterns may have involved north/south canoe and boat travel on the Lillooet River system, and from there an east-west access through Billy Goat Creek to the Whistler area. This transportation pattern may have existed prior to the establishment of the trapping system, and may be a traditional route in the Whistler area.

Traditional Lil'wat stories are also tied to the land in the vicinity of Callaghan Creek. The story of the travels of the Transformers, the Sasquatch and the one-legged medicine man are linked to the Whistler area. An archaeological site, near Green Lake, is physical evidence of Lil'wat use of the Whistler area. The housepit also near Whistler indicates more permanent settlement by the Lil'wat people in the past. An additional site consisting of culturally modified western red cedar trees is known to be located along Highway 99 and indicates more recent

traditional use of the area. Finally, ethnographic sources show that Lil'wat people were known to have a hunting and gathering territory that clearly includes the Callaghan Creek watershed.

The TUS did not identify any current uses of the Callaghan Valley by Lil'wat people. However, Creekside Resources (2002a) concludes: "The study did establish that the Lil'wat people have strong historic ties to the land in the area around the Callaghan Valley." However, assuming that there are no unidentified Lil'wat people who are using the Callaghan Valley for traditional purposes, there would thus be no conflicts between traditional users and the establishment of the Nordic sports facilities.

2.8.1.2 Squamish First Nation Traditional Use

Yumks and Reimer's (2002) Squamish Nation Traditional Use Study (TUS) aimed at collecting information about the Squamish Nation's use of the Callaghan Creek watershed. The TUS documents cultural heritage information for the purposes of identifying potential land use conflicts related to the Nordic Ski development. References to impacts are limited to the scope of the data collected, cultural and heritage values.

According to Yumks and Reimer (2002), Squamish traditional territory – the area used by the band's ancestors – is in the Lower Mainland of southwestern British Columbia. Specifically, the Squamish Nation defines the boundaries of their traditional territory as follows: from Point Grey to Roberts Creek on the west, then north along the height of land to the top of the Elaho River headwaters, including all of the islands in Howe Sound and the entire Squamish Valley and Howe Sound drainage. The boundary extends southeast to the confluence of the Soo and Green Rivers north of Whistler, then south along the height of land to the Port Moody area, including the entire Mamquam River and Indian Arm drainage, then west along the height of land on the south side of Burrard Inlet to Point Grey (Squamish Nation 1990a). The Squamish border the Musqueam to the south, the Sechelt to the west, the St'at'imc (Mt. Currie) to the north and the Tsleil-Waututh, Coquitlam and Katzie to the east. The Squamish Nation has occupied and governed its territory since beyond recorded history. Total area of Squamish Nation's traditional territory is 6,732 sq. km. or 673,540 hectares.

The TUS of the Callaghan Creek watershed was derived from a number of sources. Ethnographic and historical literature was reviewed for specific references to the Squamish Nation's use of the watershed. Additionally a baseline of maps, ground truthing and other records were reviewed for reference to the Callaghan Creek watershed. The information from these sources, presented below, demonstrates Squamish Nation traditional use of the Callaghan Creek watershed.

The review of ethnographic literature, attempts to examine trap line records, place name research, current community information and in field inspections demonstrates that the Squamish Nation has a strong historical and pre-contact presence in the Callaghan Creek drainage and the surrounding region. A number of indicators of traditional use were located within the watershed boundaries of Callaghan Creek. The Callaghan Creek watershed is embedded in a regional network of Squamish Nation place names, archaeological sites,

traditional stories, training, technology, social life, and ideology. Based on this evidence, Yumks and Reimer (2002) conclude the following:

While this is not an aboriginal rights and title evaluation, the strong evidence within this vast network provides a preliminary indication that the Squamish Nation could demonstrate their aboriginal rights and title to the Callaghan Creek drainage and surrounding areas. The study strongly established that people of the Squamish Nation have a close tie to the land in and around the Callaghan Creek drainage."

The Squamish Nation has identified the upper Callaghan Creek drainage as a Wild Spirit Place called "Payakentsut" (Squamish Nation 2001). The formation of this Wild Spirit Place was a community effort. The membership of the Squamish Nation decided the location and boundaries of this Wild Spirit Place based on their traditional knowledge and environmental values. The Wild Spirit Place in the Callaghan Creek watershed is important for plant gathering, hunting, fishing, and conducting ceremonies.

Examination of areas on the development plan map used in community interviews illustrates that several areas in the Callaghan Creek watershed were used for a number of purposes. In-field examination of the areas documented sections of a trail network throughout the watershed, linking it to other areas in Squamish Nation traditional territory. The entire watershed was used for hunting and trapping birds and mammals, with areas near water features being the best for game. Slopes with a southerly aspect were indicated as being prime medicinal plant- and berry-picking areas. Fishing was limited to those areas below Alexander Falls. Assuming that there are no unidentified people from the Squamish Nation using the Callaghan Creek locality for traditional purposes, there would be no conflict between the traditional users and the establishment of the Nordic Ski facility.

There is no mention of Squamish village sites in the Callaghan Creek watershed. The references focus mostly on those areas that are settlement sites and not the smaller seasonally used campsites. No specific mention of the use of the Callaghan Creek watershed is made in these sources; emphasis is given to other topics. Ethnographic research is mostly concerned with the description of the Squamish Nation's customs, beliefs, oral history and tradition, material culture and place names.

There is some reference to where hunting, plant gathering, trapping and other resource collection took place, but those specifically mentioned by the ethnographer's informants are outside of the Callaghan Creek watershed. Historical accounts of various expeditions also mention Squamish use of a trail or route from Howe Sound to Pemberton. This route followed the Squamish and Cheakamus rivers and is known to local native people as the Grease Trail. This route was used by people of the Squamish Nation for trading oolichan grease and other materials to their interior (Mount Currie) neighbours. Along the Cheakamus canyon and Highway 99, sections of this route can still be seen. This travel corridor was and still is considered one of the region's most important routes to and from the coast and interior. This trail served as cultural, economic, political and social link between the coastal Squamish and interior Lil'wat peoples. Squamish people did traditionally use the Callaghan Creek drainage, but

changes in this use occurred with the construction of Highway 99, the PGE railway and Daisy Lake dam. These developments altered habitat for land and marine species. The construction of Highway 99 opened the area to other people, causing a decline in use.

2.8.2 Archaeological Resources

No archaeological sites were recorded during field assessments for WOP project site and the archaeological potential of the terrain is considered low. Blazed trees and a possible mask tree observed during 2002 pedestrian traverses were not considered to be archaeological sites (see Creekside 2002b).

Construction of the Legacy Trails, which are outside the area covered by the Archaeological Impact Assessment (Creekside 2002b), will entail minimal ground disturbance. Therefore, no effects on archaeological sites are anticipated. However, there might be some potential to affect as-yet unidentified culturally modified trees (CMT).

3 Venue and Recreation Trails

3.1 Project Background and Rationale

On July 2, 2003, the International Olympic Committee (IOC) selected Vancouver, Canada to host the 2010 Olympic and Paralympic Winter Games. In preparation for the Games, the Vancouver Organizing Committee for the 2010 Games (VANOC) is constructing the Whistler Olympic Park (WNVC). WOP is located in the Callaghan Valley and will host four Olympic competitions (cross country skiing, biathlon, Nordic combined and ski jumping) as well as two Paralympic competitions (cross country skiing and biathlon).

The Olympic and Paralympic Games will be held in February and March 2010 respectively. International Olympic Committee (IOC) standards require WOP to host World Cup level events in 2009 prior to the 2010 Winter Games in order to test the venue. In addition to World Cup test events, VANOC intends to hold regional, national and continental cup events two years prior to the Games (2008) in order to further test the venues and the associated event organizations. These pre-Olympic events will encompass all four of the sports that will compete at the venue during the Olympic and Paralympic Games. The WNVC is currently under construction and is expected to open in the fall of 2007 with the partial operation needed to meet these pre-Olympic testing objectives. VANOC is also undertaking construction of a permanent additional network of approximately 20-25 km of recreational trails in the Madeley Valley.

During the summer of 2010, following the Games, site transition will take place and the first full winter season of legacy operations will occur in 2011.

3.2 Project Location, Alternatives and Site Selection

The location of WOP is in the Callaghan Valley, located in the Madeley Creek drainage area, 9 km from the Highway 99 intersection on the Forest Service Mainline. The main entrance to the 24,000 ha Callaghan watershed is 12.5 km south of the RMOW on the northwest side of Highway 99.

Callaghan Valley provides an ideal setting for backcountry recreational activities. Callaghan Lake is located 30 km from Whistler. The Callaghan Valley has had very little facility development to date, but is used for resource extraction and recreational activities. It lies within the traditional territories of both the Squamish Nation and Lil'wat Nation.

WOP location was chosen over 11 other sites around the Lower Mainland. The site selection criteria included:

- Elevation (800-1000 metres above sea level)
- Moderate temperatures, abundant snowfall, absence of wind
- Proximity to the Whistler Olympic and Paralympic Village in Whistler
- Snow in the Callaghan Valley tends to fall early and stay late; an ideal scenario for pre-season training and late season events

The Callaghan Valley is considered a very good site for WOP due to the moderate temperatures, absence of wind, abundant dry snow, established and easy road access, elevation and proximity to the Olympic village site and Whistler resort. The surrounding glaciers above the valley create a cold outflow that meets the warm wet inflow and leaves dry snow. This is much drier snow generally than at Whistler or Cypress, and the snow comes early and stays late, providing an opportunity for preseason training and late season events.

3.3 Constraints

As discussed above, WOP site was identified as the most suitable site around the Lower Mainland based on criteria such as elevation, road access and proximity of the Whistler Athlete Village. However, due to the relatively remote location of the project site and remote access issues, the construction and operation of the project has faced the following significant project constraints:

- Terrain characteristics, including topography and soil characteristics
- Stream crossings
- Adequate potable water supply
- Potable water quality that meets water quality guidelines
- Potable water infrastructure, including treatment and delivery
- Sewage discharge infrastructure, including delivery and treatment
- Energy supply and delivery
- Raw resource materials delivery for construction
- Road access to the venue and onsite road infrastructure

In addition, the project has been constrained by a short construction season of 4-6 months per year, with an overall building timeframe between 2005 and 2007 of 18 - 20 months.



Figure 10 Minor works being undertaken in Winter

3.4 Facilities and Design

On-site facilities include:

- A K95 and a K125 ski jump.
- An Olympic and Paralympic biathlon facility including: A sport management building, shooting range, penalty loop, wax testing area and competition ski trails.
- An Olympic and Paralympic cross-country stadium including: A sport management building, wax test area and Olympic and Paralympic competition ski trails.

- A variety of other services and infrastructure amenities (i.e.: Maintenance facility, roads and bridges, parking lot facilities, a central day lodge, electrical/communications facilities, water and wastewater supply/distribution and lighting).
- Other amenities and facilities such as: Olympic training trails and a 5 km. paved and illuminated roller ski and inline skating trail within the core area, and permanent wax cabins at Cross Country and Biathlon areas.

WOP was planned, designed and developed to international sports standards, as prescribed by the Ski Jump, Nordic Combined and Cross Country Federation Internationale de Ski (FIS) the International Biathlon Union (IBU) and the International Paralympic Committee (IPC).

Figure 11 Site Plan Superimposed on Air Photo

3.4.1 Cross Country Stadium and Trails

The Cross Country stadium is a horseshoe shaped configuration that measures approximately 150 metres in length by 65 metres wide, and covers an area of approximately 10,000 square metres. The stadium is located approximately 200 metres south of Madeley Tributary A, midway east of the main venue access road between the Ski Jump and Biathlon Venues. The site preparation area for the Olympic overlay functions including spectators, operations, athletes and media/broadcast, encompasses approximately 55,000 square metres (not including the stadium area). It occupies land to the south and west of the stadium. The venue is located along the internal venue service road at an elevation of approximately 865 metres. The Cross Country competition ski trails occupy lands to the north and east of the venue, and incorporate the necessary cut-offs and loop connections to meet Paralympic trail requirements.

Table 4 Vancouver 2010 Cross Country Events

Men	Women
Mass Start - 50km	Mass Start - 30km
Individual - 15km	Individual - 10km
Team Sprint	Team Sprint
Pursuit - 30km (15+15)	Pursuit - 15km (7.5+7.5)
Individual Sprint	Individual Sprint
Relay - 4 X 10km	Relay - 4 X 5km

The cross country stadium was designed for a capacity of 12,000 persons, per day. This number includes athletes, coaches, accredited constituent groups, sponsors and spectators. Separate arrival and access routes have been planned for accredited and non-accredited groups. Terrain variability around the stadium will allow flexibility with regard to competition, trail design, and will provide the capability of any combination of courses that might be necessary to meet ever changing sport requirements and FIS approval. All of the Olympic and Paralympic competition trails will be homologated to FIS and Olympic standards. The Cross Country Venue, stadium and overlay compound areas have been planned and designed in consideration of barrier free circulation and access for Paralympic athletes and spectators with disabilities.

Figure 12 Cross Country Stadium Site

3.4.2 Biathlon Stadium and Trails

The biathlon competitions for the 2010 Winter Games will be held at WOP in the Callaghan Valley. The Biathlon venue is separate from the cross country ski venue, and is located at the northern most end of the site, in a draw bounded by a knoll on the west and steep mountain slopes to the north-east. The Biathlon stadium, including the shooting range, penalty loop, wax testing slope and overlay compound areas, has been planned and designed in consideration of barrier free circulation and access for Paralympic athletes and spectators with disabilities.

The Biathlon stadium, spectator seating area, shooting range and penalty loop are fit into a draw at the northern most end of the site at an elevation of approximately 870m. The entire area, as described, requires a level surface. The shooting range (measuring 82.5 m x 50.0 m) contains 30 target lanes with a standard width of 2.75 m/lane. A permanent 2.4 m high safety fence is constructed between the shooting range and the penalty loop. A 3 m x 7 m range hut (storage bunker) is located at the north end of the safety fence, incorporated in the shooting range retaining wall. The range and penalty loop are adjacent to each other and both elements are clearly visible from the spectator seating area, which is 40m away from the shooting line. A 2.5 m x 2.5 m pedestrian tunnel connects the athlete's compound with the stadium infield coach, media and official access.

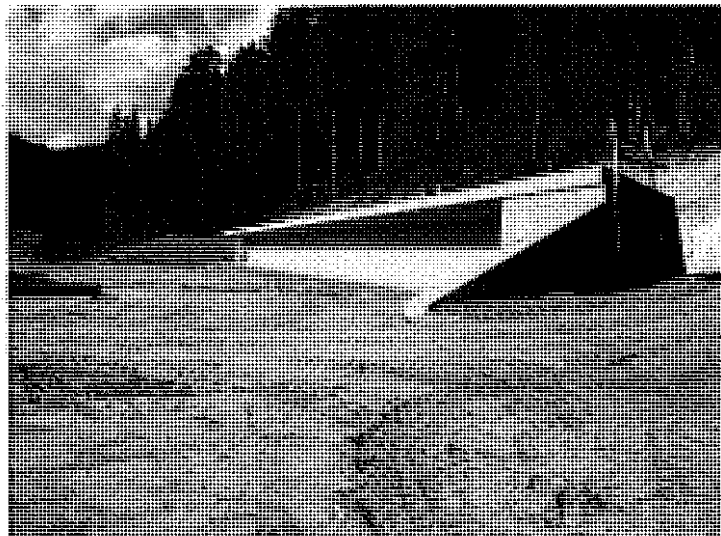


Figure 13 Biathlon Shooting Range in Construction

The start/finish area is located at the south end of the stadium with the final straight away in front of the main spectator seating area and adjacent to the technical building plaza. The start/finish area is in close proximity to the event operations and athlete compounds, wax test area and warm-up ski trail.

The biathlon stadium is designed for a 12,000 person, per day, capacity. This number includes athletes, coaches, accredited constituent groups, sponsors and spectators. Separate and convenient arrival and access routes have been planned for accredited and non-accredited groups, ensuring security and easy access.

Figure 14 Biathlon Stadium Site

Terrain variability around the stadium will allow flexibility with regard to competition trail design, and will provide the capability of any combination of courses that might be necessary to meet ever changing sport requirements and IBU approval. All of the Olympic and Paralympic competition trails will be homologated to IBU and Olympic standards.

Table 5 Vancouver 2010 Biathlon Events

Men	Women
Mass Start - 15km	Mass Start - 12.5km
Individual - 20km	Individual - 15km
Team Sprint - 10km	Team Sprint - 7.5km
Pursuit - 12.5km	Pursuit - 10km
Relay - 4 X 7.5km	Relay - 4 X 6km

3.4.3 Ski Jumps – K 125 and K 95

The ski jumping competitions for the Olympic Winter Games will be held at WOP in the Callaghan Valley. The ski jump venue is a seasonal facility that will support winter jumping only.

The ski jump venue will be situated approximately 300 metres south of the cross country stadium. Similar to the other two sport stadiums, the Ski Jump site is designed to accommodate a 12,000 person capacity. This number includes athletes, coaches, accredited constituent groups, sponsors and spectators. Separate arrival and access routes have been planned for accredited and non-accredited groups, ensuring security and easy access.

Table 6 Vancouver 2010 Ski Jumping and Nordic Combined Events

Men Ski Jumping	Nordic Combined
K95 Individual	K95 / 15km Individual Gundersen
K125 Individual	K125 / 7.5 Sprint
K125 Team	K125 / 4. X 5km Team

The west facing mountain slopes selected for ski jumping in the Callaghan Valley is well suited for developing jumps that will meet FIS Ski Jump and Olympic requirements. The terrain allows the jumps to be constructed in response to the natural topography. The jump design includes an elevated in-run structure with the landing zone and out-run generally at grade. The K95 and K125 jumps will be homologated to FIS Ski Jumping and Olympic standards.

Figure 15 Ski Jump Site with Chairlift and Judge's Tower

There will be a refrigeration system to cool the snow placed on each of the two ski jump in runs. The refrigeration system comprising the compressors, chillers, circulating pumps, condenser, receiver, Motor Control Center, etc will be controlled by a dedicated refrigeration system control panel. A small snowmaking system (air/water) has been designed and constructed for the ski jump and landing hill and outrun. The system consists of compressor building, water pump, 10 hydrants and associated pipes.

3.4.4 Ski Jump Judge's Tower

The purpose of this structure will be to accommodate the jumping competitions for the 2010 Games, as well as training and jumping competitions in the winter of both 2008 and 2009. The Judge's Tower houses:

- Event management and announcers;
- FIS Race Technical Director
- Dignitaries and others at the Rooftop Viewing Deck

The 2,200sft, 3 storey Ski Jump Judge's Tower is located alongside the two ski jumps. The building is used during competition events for judging and scoring and jury deliberations.

3.4.5 Chairlift

A fixed grip double chairlift has been designed and constructed for access to the ski jumps. The purpose of the chairlift will be to accommodate athletes and coaches, officials, volunteers and others associated with the operation of the ski jump during training and events. The Ski Jump Chairlift is some 330m in length and has a vertical change of 124m.

The chairlift is designed for foot passengers only and is located parallel to the ski jumps and the offset varies from 20m to 60m from the centreline of the K95 jump. The intention is to maintain a forest buffer between the chairlift and the jumps. A mid-station will allow officials, operations personnel, dignitaries, etc. to access the Judges Tower midway up the landing hill. The top station is located to allow a somewhat level walk from the chairlift station to the stair tower access for the jumps.

3.4.6 Daylodge

A permanent Daylodge is designed to service the entire venue. The Daylodge is focused on the service requirements for the legacy activities and will subsequently be used as a central point for legacy activities and sport-based activities such as future significant Provincial, National, and International events at the Whistler Olympic Park. In keeping with the spirit of Venue wide sustainability the goal is to create buildings for short term Olympic use that have long term Legacy value.

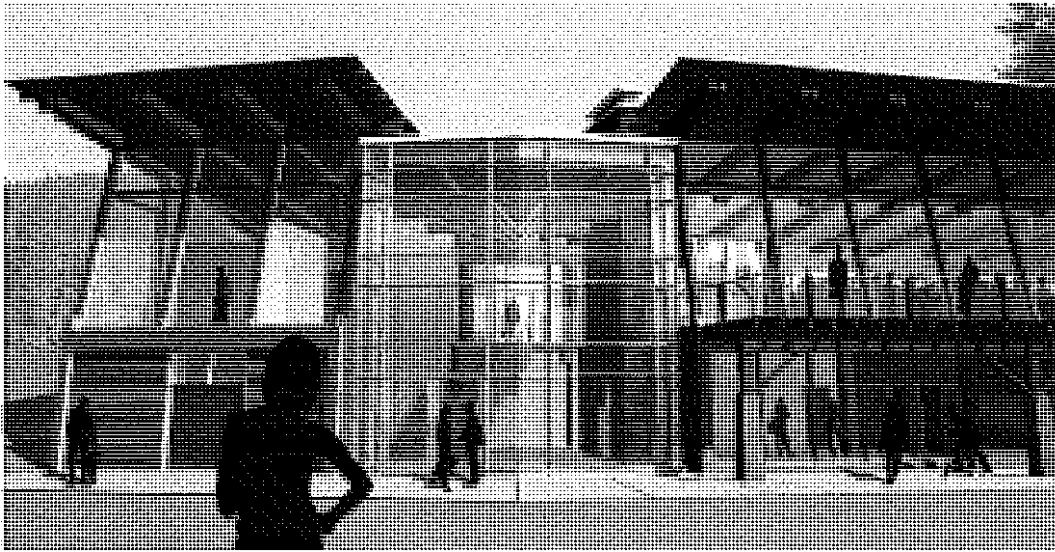


Figure 16 Concept Design for WOP Daylodge Lower Entrance

The Daylodge will setup WOP's West Coast theme by use of simple contrasting materials: timber, stone, metal, concrete, and glass. This design theme will then be carried out in a similar, manner for the Technical services and MP wax buildings at the other venues. The design will privilege central location to the venues and easy road and parking access as well as orientation to the majestic views of the valley.

The building will feature low-sloped butterfly roofs to mitigate snow and ice collection. It will incorporate sustainable design concepts throughout to achieve our team-founded initiatives that make most sense for the site, design, and budget to maximize their sustainability now and into the future.

The building is centred around an upper and lower entry area that will allow for connection to all program spaces in the building. The upper floor is mainly focused around the food and beverage portion of the program. The restaurant/scramble will be directly accessed from the upper level entry and will incorporate approximately 143 people for meal service. The flanking grille/lounge will accommodate an additional 57 people for meal service. Those spaces along with the outdoor patio spaces will accommodate approximately 250 people/ turn. These spaces are sized according to projection numbers for legacy activity of a 1000 person peak day that will incorporate approximately 3 turns. The kitchen was sized accordingly to be able to meet the needs of the full phase 1 and phase 2 food and beverage spaces and will be properly fit out during phase 1 with expansion in mind.

The upper level has additional ticketing and retail uses that also flank the upper level entry lobby that will allow for the sale of daily and seasonal tickets, merchandise, memorabilia, and a small component of sports retail. Finishing off the upper level is the general office spaces that will be the hub of the office and management functions as well as for guest services for the entire WOP site.

The lower level entry provides a double height connection to the upper floor as well as the main functions within. The most direct public function of the lower floor is washrooms, locker rooms, and shower and change rooms for the facility. These rooms have been sized according to occupant loads for the phase 1 building and the future phase 2 build out. The other main public function of the lower level is the ski and equipment rental space flanking the lower level entry. This space will be designed to allow for streamlined rental of cross-country skis and snowshoes as well as rental repair and as being the secondary hub for guest services and ski school operations.

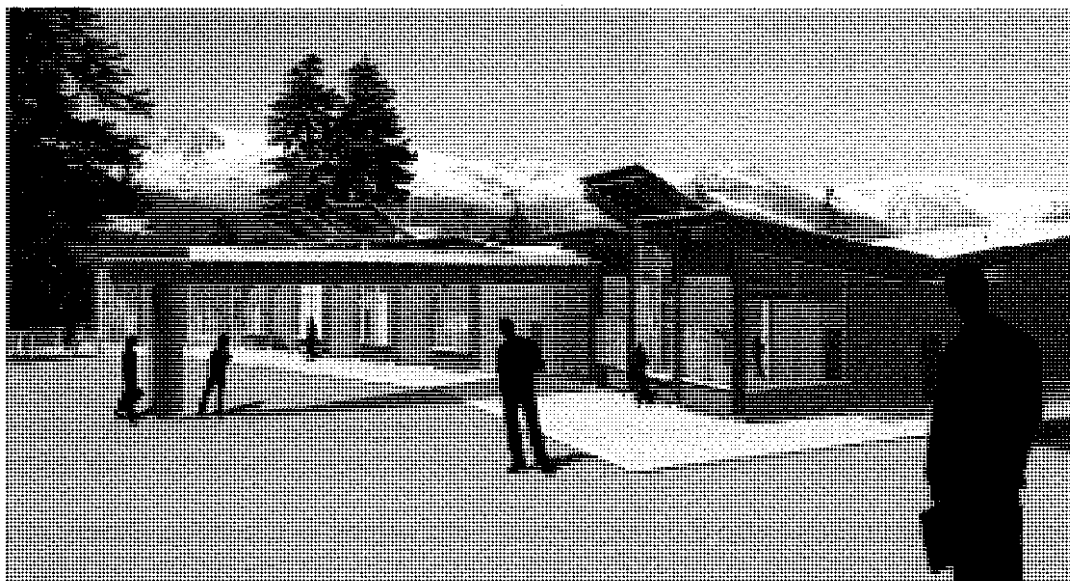


Figure 17 Daylodge Design Concept, Main Entrance

On the exterior of the rental area is ample covered space out of the weather below the deck for gathering and built in wax tables for cross country usage.

The balance of the floor will be used for non-public activities of the building including staff break room, mechanical and electrical rooms, and storage for the smooth functioning of the building. The phase 2 future build out entails an addition to the food and beverage space to allow for an additional 71 people as well as a sport component of the building that will allow for multipurpose sport event rooms as well as cross country club locker facilities. These spaces are necessary for future legacy projections for day use and sport event activities and might commence at an undetermined later date.

3.4.7 Technical Buildings

The 3,500sft, 2 storey Sport Technical Buildings and 2,500sft Wax/Flex Buildings are located at the respective competition stadiums and service the venue site (Cross Country and Biathlon). The buildings are primarily used during competition events for timing and scoring, jury deliberations, race secretariat and stadium announcing. Outside of event times Sport

Federations, training athletes and Nordic clubs will be able to use these buildings for administration and conduct training camps as WOP has been identified as a national training centre for nordic sports.

The technical service building and MP wax building will maintain the West Coast theme formed in the Daylodge by use of simple contrasting materials: timber, metal, concrete, and glass. Their design will privilege site access & orientation and sport functionality, while taking into consideration potential related Legacy programmes.

All additional program space needed for the Olympics will be dealt with by the VANOC's Overlay component.



Figure 18 Technical Building under Construction, 2006

The Cross Country technical building include elevator lift access to the second level in compliance with Paralympics sport requirements and barrier free building codes. 'Club' facilities are included in the Multipurpose/Wax building, a planning choice made to accommodate team activities that cannot be accommodated within the Day Lodge program. As a consequence, the technical buildings are programmed to meet sport event requirements as well as Legacy needs for 'club' access.

In this programming is included also the multipurpose 'wax cabins' in a building directly adjacent to the technical services building, which in the case of the Cross Country facility has been

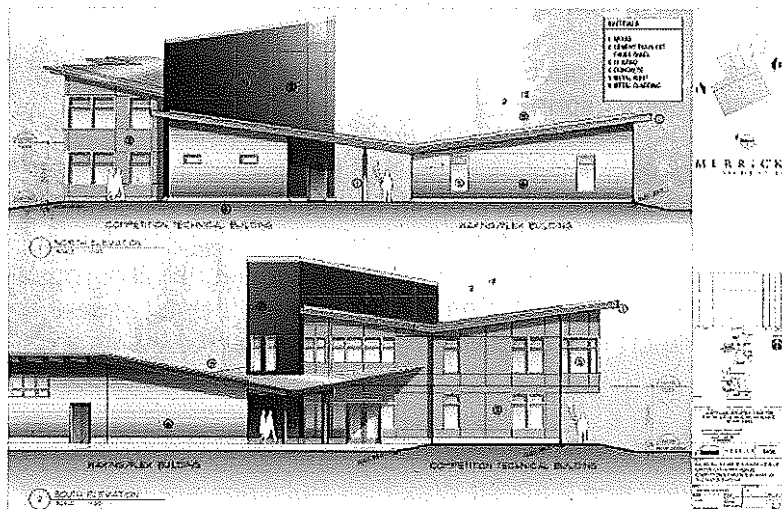


Figure 19 Cross Country Technical Building Concept

designed with flexibility to potentially house future wax cabins serviced by a central corridor. Therefore during the games, there will be a large open space to be divided with temporary partitions and during Legacy permanent partitions may be added to create the internal cabins with the linked corridor. In the Biathlon Technical building, permanent partitions have been made in addition to space for stone grinder machinery at the lower level wax room unique to this facility. During Legacy these spaces will be used for event

wax cabins, club wax cabins, club storage space, general storage space, and possibly other uses according to Legacy activities.

3.4.8 Maintenance Building

The maintenance building has been programmed to meet the needs of legacy activities that will occur in the valley year-round, while being the Olympic headquarters for Games-time trail and machine maintenance. The maintenance building has a supporting role for the day use legacy activities and sport-based activities such as future significant Provincial, National, and International events.

The building is focused on the service requirements for the legacy activities valley-wide and will subsequently be used as a central service point for legacy activities at the Whistler Olympic Parks. Along with the building, the grounds will provide space for the movement, storage, and repair of snow grooming machines, ski-doo's, and other maintenance machinery that will be used in the legacy condition. The maintenance building and grounds has been planned and sited in order to be out of sight of the visitor headed to the Daylodge along the roadway. The utilitarian nature of this building and grounds are screened by a change in grade and sufficient tree screening while still giving direct access from the maintenance grounds to the valley as a whole. The building itself will be a pre-engineered metal building with a material palette of corrugated metal siding, metal roof, and a tough concrete base. The building will feature low-sloped roofs with snow guards and overhangs to mitigate snow and ice collection. The pre-engineered structure will be built upon a concrete skirt to allow for the building to have a hard wearing base to ensure the building's condition into the future.

3.4.9 Ski Trails

The purpose of these trails will be to accommodate the cross-country, biathlon and Nordic combined competitions for the 2010 Games, as well as training and competitive events in 2008 and 2009. Recreation trails are designed for all season use in the Legacy context. The Ski Trails dimensions per venue are designed as follows:

- Cross-country Blue Trail – 5km by various widths of 5.0m, 6.0m, 7.0m and 8.0m. This includes a portion of the Paralympic Trails.
- Cross-country Red Trail – 5km by various widths of 5.0m, 6.5m, and 8.0m. This includes a portion of the Paralympic Trails.
- Biathlon Competition Trails – 4 km by various widths of 5.0m, and 7.0m. This includes a portion of the Paralympic Trails.
- Training Trails – 10km of 6m width
- Spectator Trails – 2.5km of 6m width (Ski trails ploughed and used as spectator access trails during Games)
- Cross-country and Biathlon warm-up tents – 1.5km of 6m width

Approximately 5km of the competition trails will be paved and lighted for athlete and team all-year training and preparation. In the winter months, newly fallen snow will be compacted, graded and tilled using snow cats. It is expected that approximately 300 mm of fallen snow will compact to a thickness of about 150 mm. Trails will continuously be compacted and tilled, with track setters being used as required for competition.

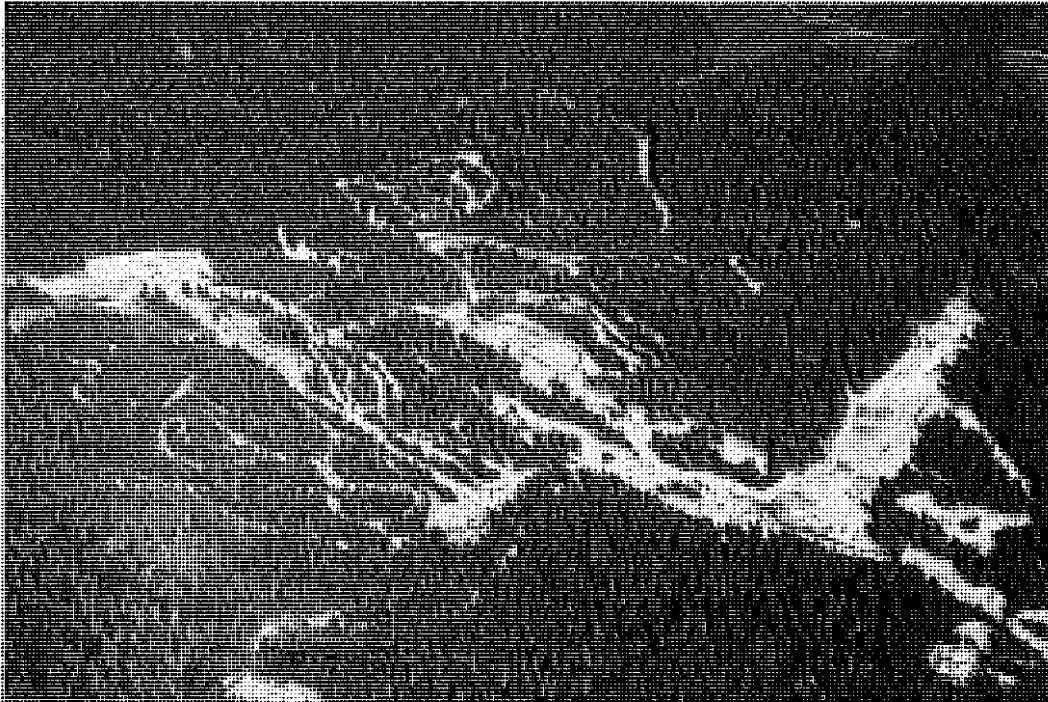


Figure 20 WOP site, Summer 2009

3.4.10 Recreation / Legacy Trails

In addition to the structures outlined above, VANOC is constructing a permanent additional network of approximately 20-25km of recreational trails in the Madeley Valley to be used on a year round basis that are not part of the Olympic requirements but would be operated by and used in conjunction with WOP after the 2010 Games.

The recreation trails add mostly beginner and intermediate terrain to be developed outside of the current venue area to provide suitable recreation trails for all skill levels. These trails will connect with WOP area at several locations. Trails will range in width from 5 m for "single track" skiing to 7 m in heavily used two-way trail sections near the core facilities. Some short sections of the trails will be grubbed and graded. Gravel topping may be added to some trails to provide surfaces for mountain bikers.

The recreation trails will be maintained and managed out of WOP, operated in conjunction with WOP, using the same operator, and will rely on that facility for all of its services and support including access, parking, power, waste management. Warming hut locations and viewpoints/resting areas have been identified in the draft trail plan. The trails are intended to be permanent and there will be no decommissioning phase for the project. There will be no motorized recreation activity provided on this trail system, other than to meet servicing, grooming, emergency and other operational needs.

Figure 21 Competition Trails

Figure 22 Recreation Trails

4 Servicing and Utilities Infrastructure

4.1 Access Road

Prior to the venue plan, access into the area and beyond to the Callaghan Provincial Park was mainly by Forest Service Road (FSR). A number of trails and former mining exploration routes also exist. In winter, the FSR has not been maintained, so access was over snow and often groomed by Canadian Snowmobile Adventures (CSA) for use as part of their tenured commercial snowmobile operations.

Access upgrades were required to provide a permanent paved route to the venue, plus an alternative access and egress if needed for security purposes. It was determined to provide the new access via the west side and to upgrade the east side as the alternate. In July 2004, the Ministry of Transportation awarded the detailed design assignment of the access road to the proposed Whistler Olympic Nordic Centre.

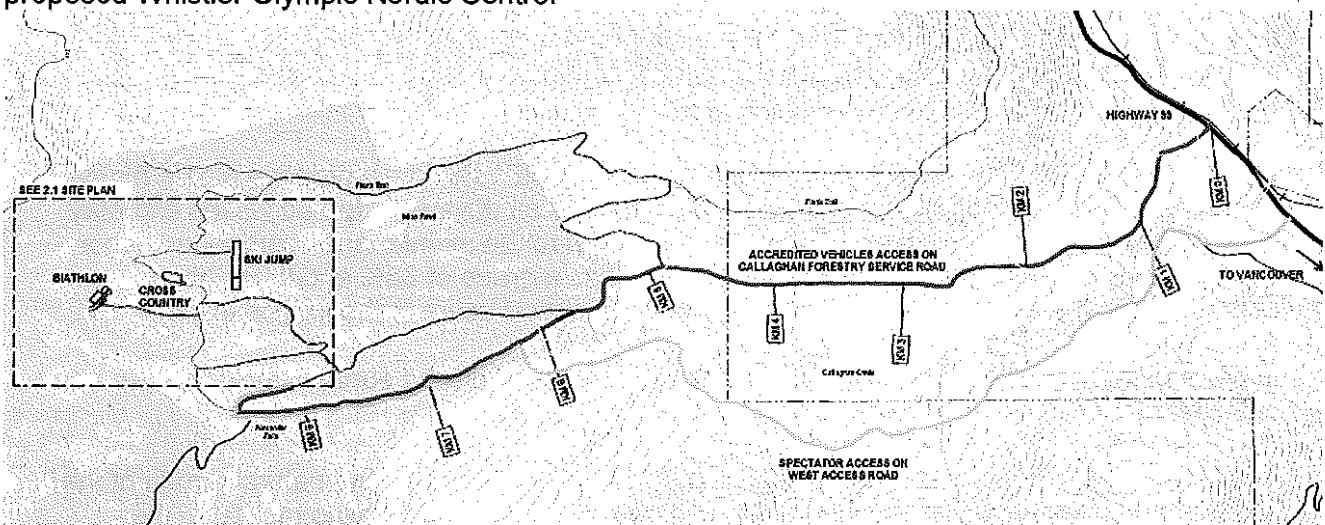


Figure 23 Access Roads to WOP from Hwy 99

The new route generally follows the Callaghan West Forest Service Road until crossing Callaghan Creek at Kilometre 7.2 of the proposed roadway (Sta. 172+00). At that point, the proposed roadway follows the route of the Callaghan East Forest Service Road until terminating in the vicinity of the Nordic site at kilometer 9.6. The 60km/h rural highway consists of two 3.5 m wide lanes and 1.0 m paved shoulders and includes the construction of three new bridge structures. One of the newly constructed structures is an 80-m long curved bridge that spans the Callaghan Creek. Pullouts have been provided at intervals sufficient to allow emergency stopovers without major impact on through traffic.

The existing gravel access road on the east side of Callaghan Creek will be used as an alternate security / VIP route to the Olympic Whistler Nordic Site. This gravel road will be

resurfaced prior to the Olympics to improve the running surface. The section between Tributary 'B' Creek and the junction with the new paved access road is being realigned and built to a 40 km/h design standard. For the last 2 km prior to the Olympic Nordic Venue site, the alternate security / VIP route shares the roadway with the new paved access road. Post Games, this route will be the permanent public access.

4.2 On-Site Roads, Traffic and Parking

The permanent road network of the Whistler Olympic Park will consist of approximately 8.0 km of paved roadway and 5.0 km of spectator pathways.

L200 roadway is the main access road throughout the site. It starts just south of Madeley Creek and winds itself past the maintenance compound and down to the bus parking area. L300 is a short access road linking the A3, athletes compound, to L200. L400 is a one-way access roadway throughout the bus parking area. L500 is the bus shuttle roadway from L200 to the spectator plaza. L600 continues from the L200 alignment to the Biathlon area at the north end of the site. The L700, L750 and the L805 are access roadways to the maintenance compound, the wastewater treatment compound and the ski jump areas, respectively. L800 and L850 are also access roadways to the ski jump from the existing road. L900 is a four lane, two lanes paved and two lanes gravel, continuation of Ministry of Transportation (MoT's) access road from Highway 99 to the bus parking area (L400).

The vertical grade of the main access roads do not exceed 10%, in accordance with MoT's Alpine standard, whereas minor access roadways were treated as driveway type accesses and may have higher grades. Specifically, L700 the access road to the maintenance compound has a grade of 11.7%. L805, access to the judges tower, has a grade of 35% and it has been determined that specialized vehicles will be used to transport users to the judges tower.

In general the typical road section consists of a 7.2 m paved driving surface, including shoulders.

The intention of the roadway and spectator path design was to follow the natural terrain of the site while maintaining the prescribed design criteria. Also, as a cost saving measure, the alignments followed the existing accesses as closely as possible. This information was used to adjust the alignments. In the case of the spectator paths, specifically S1200, alignments were roughly staked in the field and flagged in the spring of 2005. The routes were then revised in the field optimizing the experience one would have traveling along the path and clearing of each route was completed. The cleared paths were surveyed and that information was used to define the spectator paths while maintaining the minimum width and maximum grades of 6%. The remaining spectator path alignments, S1100, S1300, and S1400 will be determined in the field by VANOC once the roadways and competition trails have been defined in the field. The maximum grades of 6% may be increased due to site conditions, for short distances to reduce excavation and embankment construction costs.

Figure 24 WOP On-site Road System

Table 7 Projected Traffic Volumes, Games-Time

Vehicle Type	Use	Vehicle Number
Motor coaches	Sponsors	10
Motor coaches	Spectators	660
Vans (15 PAX)	Athletes	160
Vans/Cars	Technical Officials	60
Vans	NOC Team Vehicles	160
Vans/Trucks	Broadcasters	120
Motor coach	Media Shuttle	10
Transit Buses	Volunteer Shuttle	90
Cars/Vans/SUVs	IOC Family	100
Trucks	Sponsor technical support/ maintenance and service equipment	200
Total		1570

Traffic during the games shall enter the site from MoT's access road onto the L900 and enter the bus parking facilities along L400. Accredited vehicles will access the site along the same entrance roads and continue to the venues along L200. Concrete roadside barrier will be in place to divide the roadway and separate the accredited and non-accredited vehicles.

The parking circulation is provided primarily by the L400 alignment. This is a one lane bus (during the Games) route only and provides drop off for users. The roadway could be widened with a "saw tooth" appearance which will provide an additional area for buses to pull over and drop off passengers, however, the saw tooth concept was not considered to reduce the construction costs. The buses will be able to proceed to the parking area or off the site without placing the vehicle in reverse and delay incoming traffic.

The minimum size for on-site parking spaces was based on a review of the Parking and Loading Regulations in various municipalities and from surveys of vehicles in the Whistler Creekside parking lot. In other communities where the type of vehicle typically driven is similar to that expected at WOP, including the RMOW, the required parking dimensions range from 2.6 to 3.0 metres width and from 5.7 m to 6.1 m depth.

Surveys undertaken by Ward Consulting Group at the Whistler Creekside parking area during the winter 2000 found that 90% of the vehicles surveyed over a 4-day period had maximum dimensions less than 2.0 m wide and 5.5 metres long. Allowing for driver and passenger access, a parking space of 2.8 m by 6.0 m would accommodate the 90% vehicle dimensions observed in this survey.

From the above review, paved on-site parking stalls at WOP that are designed to accommodate private vehicles (cars/minivans/SUV) will have a minimum width of 2.8 m and a minimum depth of 6.0 m. For unpaved spaces a minimum of 3.0 m width and 6.0 m length will be applied.

Parking areas in the legacy condition will be similar in location to parking during the Games, however, somewhat reduced to meet the projected demand. A majority of the bus parking area at the east end of the site will be re-naturalized and limited parking for the proposed campground will be incorporated. Additional parking will remain adjacent to the Daylodge and within the current operations compounds. All parking areas are yet to be finalized in the legacy condition. Exact size and locations may vary.

4.3 Water Supply

The permanent water supply and distribution system have been designed for the Legacy condition demand. For Games period temporary additional supplies of potable water will be trucked in. Portable toilets that do not require flush water will be used during the Games period.

The Water Treatment Plant (WTP) structure is to be an approximately 120m² wood framed structure with a below grade basement and slab on grade. It is located between Madeley Creek and the Mid-flank Trail approximately 300m north of the Alexander Falls Bridge (see Figure 24)

The point of diversion (POD) is located on Madeley Creek approximately 500 m upstream of Alexander Falls on the left bank of the stream. Access to the site is via a developed access road adjacent to the creek. The approximate coordinates of the POD are N 49447.4, E 8818.6 as determined from existing mapping and site investigation work undertaken to date. The water intake structure or materials used in its construction will not affect water quality. No substances are added to Madeley Creek, the temperature of the water will not change passing by the intake structure, and the intake structure will be designed to avoid increasing turbidity of the water or affecting the channel in any way. The intake structure is designed to maintain high velocity along the intake to prevent deposition of sands and gravel at the intake. Potential bank erosion will be limited by rock protection placed at the bank to protect the pipe leading to the water treatment plant.

The estimated maximum possible daily withdraw from Madeley Creek is 1,209.6 m³/day or a maximum rate of 14 L/s. Maximum demand is likely to be exercised during snowmaking operations in during the early (Nov.-Dec.) winter period. The only water licence recorded for Madeley Creek is Licence No. C122392 issued to VANOC in December 2006. The licence permits withdrawal of 80,000 gallons (364 m³) per day for "enterprise"¹ and 819 acre-feet (~1,000,000 m³) per year for snow-making.

The design and construction of the water intake will not result in impacts to fish or fish habitat at the site. The intake itself is a small stainless steel screen installed on a pipe stem located near the bed of the stream. It is located in a deep, bedrock-controlled pool in Madeley Creek.

¹ Defined as: "Water used for hotels, motels, trailer parks, service stations, restaurants, commercial campgrounds, mobile home parks, or similar commercial enterprises which are owned and operated for profit."

These pumps will be placed in a wet well and the water level will be continuously monitored with a level transmitter. The WTP system will operate only if the water level in the wet well is above Low Level. The water in the wet well is continuously monitored for turbidity and the signal is sent to the MB SCADA Panel and recorded (see Section 4.7). The water temperature in the wet well is also monitored.

Treated water from the water treatment plant will be pumped via 1,600 m of 150 mm diameter ductile iron water main to high level water reservoir on ski jump, same pipe will feed the distribution system at junction 11. Distribution system with two north and south branch of 150 mm ductile iron pipe will deliver water to the venues. All permanent buildings will receive water supply connections including the wastewater treatment plant at the south end of the site. The philosophy of the system is to have the reservoir filling during periods of low flow and regular distribution, supplied by the reservoir back into the system.

Because of high pressure at the lower elevations, a pressure reducing valve station will be placed in each building's mechanical room to return the system pressure back to adequate operating pressures at the buildings.

A High Level Water Reservoir located at K95 Ski Jump is to be installed and has a capacity of 605 cubic meters. There are two high pressure pumps for snow making, a lead pump and a lag pump. These pumps are located in the Valve Chamber. There will also be a domestic water pump for the Common Tower.

Figure 25 Site Plan for WTP and WWTP and Associated Piping

4.4 Waste Water

A wastewater treatment plant (WWTP) has been designed to provide advanced waste water treatment for a maximum day flow of 234m³/day. The WWTP structure is to be an approximately 160m² wood framed structure with slab on grade. It is sited approximately 70m west of Tributary B and east of the L200 Road, opposite the O8 Maintenance Building compound (see Figure 24).

Wastewater flows will be collected from permanent facilities at each venue and the Day Lodge in a combination system of gravity sewers and forcemains which will discharge to the WWTP. Small lift stations will be used to convey flows from low areas to the gravity sewer mains. Water treatment residual will be pumped to the wastewater treatment plant. It is expected that the water treatment facility will produce a residual stream between 5 and 10% of plant throughput which will be drained to a lift station in the water treatment compound and will be pumped to the wastewater treatment plant. At maximum capacity of water treatment during snowmaking operation, the residual flow will be between 52 and 105 m³/day which is less than wastewater treatment capacity considering limited sewage flow rate from maintenance and operation crew only. At the maximum day rate the residual flow will be up to 24 m³/day, which has been allowed for in the wastewater treatment capacity.

The technology proposed for the biological process of the WWTP at tertiary level of treatment is a Membrane Biological Reactor (MBR). The MBR will be designed to nitrify on a year round basis and will be able to meet stringent ammonia effluent limits that may be imposed by regulatory agencies having jurisdiction over the discharge from the WWTP. With the provision of Ultraviolet (UV) disinfection at the end of the liquid treatment train, the effluent from the WWTP will be able to meet the Unrestricted Public Access standards for reclaimed water.

Raw wastewater from WOP buildings will flow through a manually cleaned coarse screen prior to entering an equalization tank, which will be used to attenuate peak instantaneous flows to the MBR and reduce the design flux rates of the membranes. Raw wastewater will be pumped through a fine screen, then discharged to the MBR. Aluminium sulphate (alum) will be added to the MBR to precipitate phosphorus to meet the stringent Total Phosphorus (TP) limits of < 0.25 mg/L stipulated for the Cheakamus River at Whistler geographical region. If required, an alkalinity supplement, such as caustic, will be added to the bioreactor to ensure that ammonia in the raw wastewater can be fully oxidized to nitrate.

The effluent from the MBR will be treated by UV disinfection, chlorination and dechlorination processes prior to an effluent pump station. The treated effluent will be pumped and will convey through a forcemain to Madeley Creek.

Screenings and debris removed from the manual coarse and fine screens will be disposed of at a sanitary landfill. Waste activated sludge generated by the biological process will be stored on-site in an aerated storage tank, then disposed of off-site at a larger municipal wastewater treatment facility or organics composting facility.

Given the relatively small size of the sewer collection system, fugitive odour emissions from the WWTP are not expected to be an issue. Notwithstanding, provisions will be included in the design to treat odour emissions from the Equalization Tank/Pump Station, and fine screening. The foul air from these locations will be treated using UV, activated carbon or biofiltration.

4.5 Power Supply and Distribution

The power supply (BC Hydro is responsible for the complete power supply system) consists of a 25 kV overhead line, via a new 9 km road (West Access Road), from Highway 99 to the main electrical room in WOP. BC Hydro has installed and connected the pole line from Highway 99 to the property line of WOP underground to the Maintenance Building and Water Treatment Plant to form a closed loop.

Each of WOP site's eight electrical rooms have an emergency power panel with a manual transfer switch connected to an outside power receptacle. During the Olympic Games, it will be necessary to rent and connect modular diesel generators to the power receptacles outside the unit substations. These gensets will be the prime power supply with BC Hydro power as standby back-up power for the essential loads. In the event of generator failure, the manual transfer switch will transfer the essential loads from the generator to BC Hydro power supply.

4.5.1 Games Security

The RCMP will propose a comprehensive Games security plan for WOP. The required infrastructure is currently part of the in-process Overlay design.

4.5.2 Games Broadcast Compounds

There will be 2 Games broadcast compounds – one combined for the Biathlon and Cross Country, and one for the ski jumps. The detailed infrastructure requirements are part of the Overlay design. It is anticipated that design would include the 600 V power supply to each broadcast compound via underground ducts.

Each broadcast trailer may have emergency power generators, to supplement the normal power supply. Cable management will include the pre-wiring of the 600V power distribution with power receptacles inside the compound for quick connects and disconnects to the trailers. Oversized underground ducts will be required from the permanent communication rooms to the broadcast compounds. This would include pre-wiring the broadcast communication distribution with access panels and switches inside the compound for quick connects and disconnects to the trailers.

4.5.3 Scoreboards

Power and communication infrastructure will be provided for the scoreboards and signage. The final wiring and connection will be determined as part of the Overlay design when the exact requirements are available. One permanent scoreboard is planned for the cross-country stadium.

4.5.4 Games Public Address System

Infrastructure for 4 public address systems will be provided for Ski Jump, Biathlon, Cross Country and Entry Gate/public walkways during the Games. The PA system equipment supply and installation will be part of the Overlay design and requirements. Each public address systems can be switched and accessed separately. In an emergency event, all the public address systems may be controlled and accessed from a command / emergency response control room. A smaller, permanent system will be installed at each stadium.

4.6 Communications

Bell will engineer, supply, install, connect and commission an incoming fibre cable on BC Hydro's pole line system and in the underground duct bank infrastructure. The main telephone / data service will be from Highway 99, via pole lines on the West Access Road, to the underground communication ducts along the internal roads. The main fibre backbone cable will be spliced to the communication rooms of the Maintenance building, Ski Jump, Media Centre, Daylodge, Cross Country, Biathlon and Water Treatment facilities. From the main and local communication rooms, fibre and Cat-6 cables in raceways, will connect the data / telephone hubs / jacks to the end users.

Bell will also engineer, supply, install, connect and commission the alternate fibre cable along the edge of the temporary access road and in the underground duct bank infrastructure. The alternate telephone / data service will be from Highway 99, surface mounted on the temporary access road to the underground communication ducts along the internal roads. The alternate service may be 100 strands of single mode fibre. The alternate fibre backbone cable will form a closed loop with the main incoming fibre cable.

All communication rooms will be situated in secure locations. Intruder alarm systems will be incorporated into the communication rooms. The underground infrastructure drawings have been reviewed and approved by Bell Canada. Underground communication duct banks will be buried below the roads and the walking paths.

Separate manholes and pullboxes are required for the underground communication distribution. The pullboxes / manholes, along the main roads and walking paths, may be 1500 x 1500 x 1500 concrete pullboxes with H20 highway loading covers. The pullboxes / manholes, adjacent to the communication rooms for the Overlay requirements, may be 900 x 1800 x 900 (H) fibreglass pullboxes with open bottoms. During the Olympics, Bell will install temporary communication pedestals adjacent to the fibreglass pullboxes for the Overlay requirements.

A Wi-Fi, Security and Public Address Systems will be part of the Overlay design. The above wiring may be installed in the communication underground duct bank system to reduce the extent of open wiring.

In the Legacy mode, there will be a cell tower (50 m high) with a footprint of 7 m x 7 m associated with the maintenance facility. Guy wires are not required. The concrete base will be 15.2 m x 15.2 m with a 2.1 m high chain link fence and barbed wire to prevent unauthorised

entry to the tower compound. A double door will be installed for vehicle entry. The maximum distance between the tower and the communication room is 10 m. A cabletray will be run on the ground between the cell tower and communication room. There will be more than 25 cables in the tray. In the Overlay mode, there will be a portable / temporary 30 m high cell tower and associated temporary communication room at the Biathlon site.

VANOC is planning for 2 broadcast compounds with the possibility of a third broadcast compound for standby. At the last winter Olympic event, there were 20 x 4" ducts entering the technical building for the various Overlay functions such as timing, scoreboard, public address and video. To accommodate this, a large manhole will be installed outside the technical building with 20 x 4" ducts leading to the judges' room. Infrastructure for the Broadcast, TV Mobiles, and segment timing facilities are currently part of the ongoing Overlay design.

4.7 Instrumentation and Controls

The various units in the Whistler Olympic Park that make up the Water Supply, Sanitary and Waste Water Systems will be monitored in the Maintenance Building by a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system will comprise the following:

- SCADA Panel - in the Maintenance Building
- Water Treatment Plant control panel
- Waste Water Treatment Plant control panel
- Lift Station 1 control panel
- Lift Station 2 control panel
- Remote I/O panels at water treatment plant and at the reservoir pump station
- Refrigeration System control panel

4.8 Construction Schedule and Cost

Construction of the venues and facilities will generally consist of the following major components:

- Site clearing and preparation (2005-2006)
- Construction of venues (2006-2007)
- Construction of infrastructure facilities including roads, water supply, wastewater supply, power stations and supply (2006-2007)
- Landscape design (2007-2008)

Substantial completion for WOP is scheduled for November, 2007.

Capital works cost is estimated at \$110 million CAD.

5 WOP Operating Plan

5.1 Commissioning and Start Up

WOP venue will be commissioned and made operational by December 2007. VANOC will assume primary management responsibility for the venue until 2010. The overall venue general management will be lead by VANOC's Nordic Sport's department and its Nordic Director. The Nordic Sports Director will, together with the three VANOC competition Sport Managers and sport assistants, administer and coordinate the main sport activities and sport priorities at the venue. VANOC human resources (HR), finance and information technology (IT) staff will support in their respective roles during the startup and pre-Games operations.

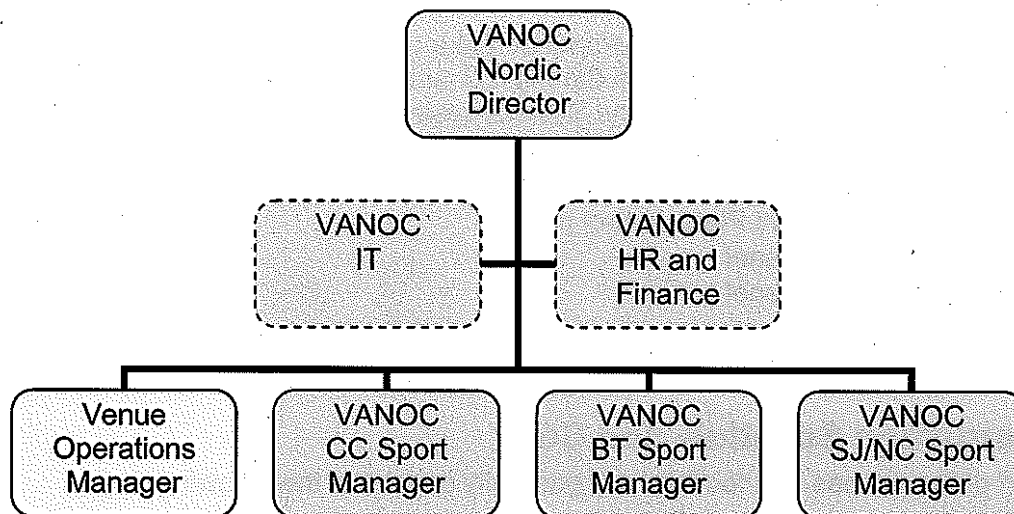


Figure 26 General Organizational Structure, Pre-Games Operation at WOP

Under the supervision of the Nordic Director, the main operational objectives for this group is to implement and oversee:

- Start-up and facility planning for grooming, snow making, lift operations, snow management, public skiing and snow activities, building programs and public guest services
- Management and administration of an operational staff to implement venue servicing activities to the highest standards
- Coordination and scheduling of all WOP daily activities together with the VANOC Nordic Sport Managers
- Preparation, support and setup for successful VANOC training and test events.
- Coordination of projects aimed to enhance the transition to successful post-Games/Legacy operations

5.1.1 Venue Operations Staffing

A Venue Operations Manager will be hired to oversee the general operations and the maintenance of the grounds and facilities at the venue, and will work together with the VANOC Sport Director and Managers to set the operational priorities. The operational staff (groomers, ski hill operators, snowmakers, lift operators, range manager etc.) will be hired from the local and regional employment pool.

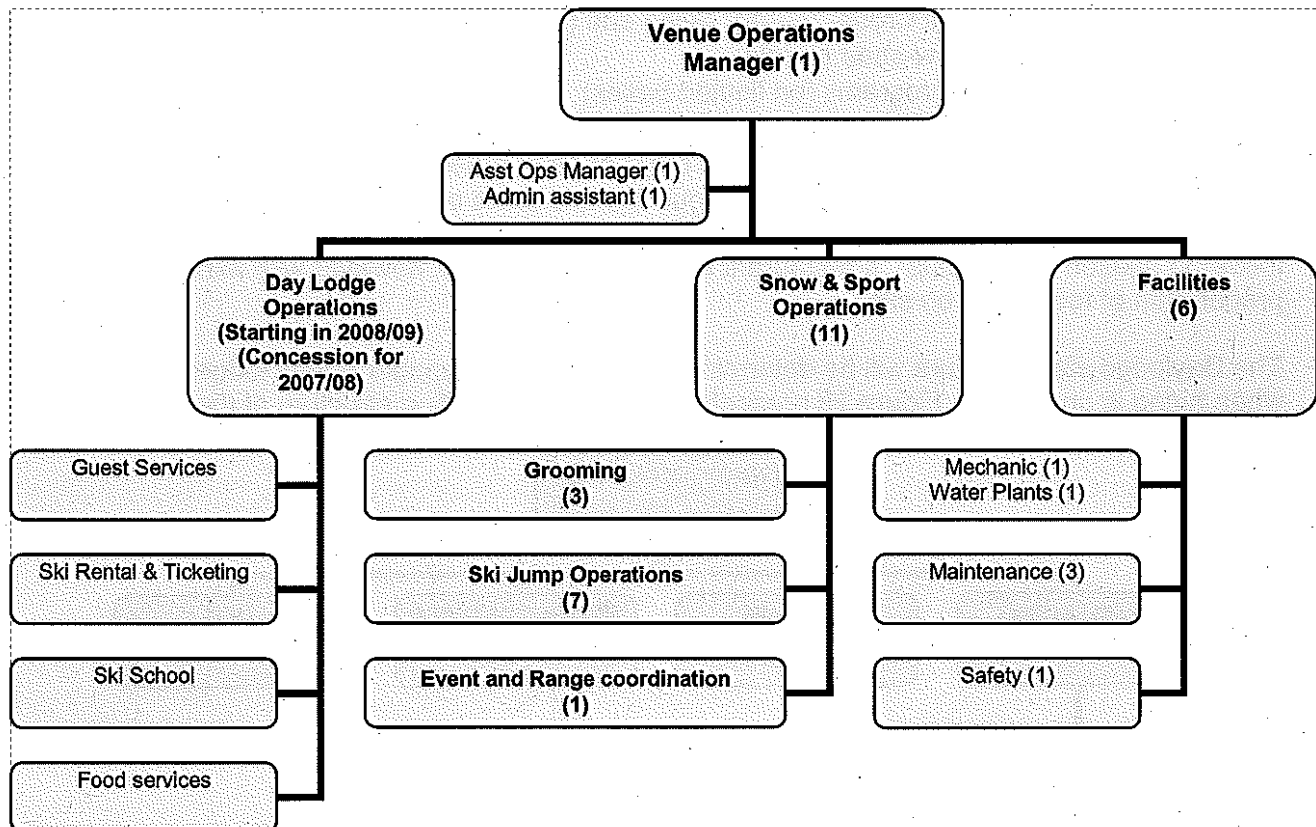


Figure 27 Internal Venue Operational Organization Pre Games

Venue Operations Management (3 FT) – overall management and administration, guest services

Facility and Site Management (2 FT and 4 PT) – Facility and trail maintenance, water and waster water plants operations, cleaning & waste, road and snow maintenance coordination, safety

Snow Operations (4 FT and 7 PT) – Sport area management, trail and hill preparation, snowmaking, lift service, grooming, range safety, sport equipment maintenance

In summary, the venue operational staffing number is estimated to start out at 15 FT equivalent positions per year. The exact staffing numbers will be determined as venue operations managers are hired, and plans and schedules are further detailed. This staff will be supported by 4 – 6 VANOC HQ positions (Sport Managers, IT, HR, Finance) in Vancouver.

5.1.2 Day Lodge Operations Staffing

The Day Lodge will act as the central staging point for providing guests with services such as:

- Recreational Cross-Country skiing and rental/retail services
- Ski and snow-shoe rentals
- Ski school programs (on limited bases)
- Group and private ski lessons (on limited bases)
- Seminars, meetings etc at the Day Lodge or other buildings
- General public information about Olympic plans and activities (including tours)

In the 2007-2008 season, the Daylodge will provide a limited food concession to visitors. The following season (2008-2009), a restaurant service will be added, however with minimum preparation of food done on site.

The Daylodge staff structure will be determined by the venue manager or day lodge manager when hiring is underway. Figure 28 presents an preliminary staffing structure at the Daylodge.

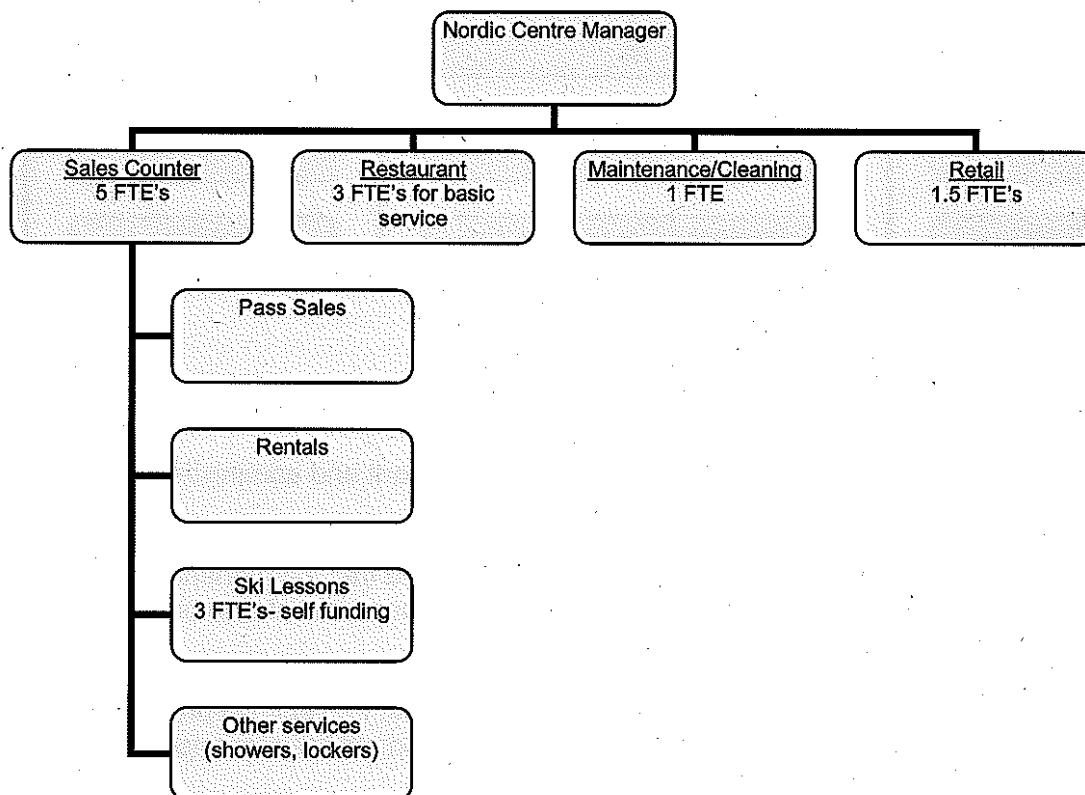


Figure 28 Daylodge Operations Staffing

5.1.3 Start-Up Capital Estimates

Startup capital will be supplied to outfit the venue with operational tools and equipment, as well as for furniture and fixtures in all buildings. Such sport equipment, tools and operational equipment includes:

- Grooming machines (4)
- Snowmobiles (8)
- Trucks and large snow clearing machinery (6)
- Olympic and Paralympic Range target systems (2)
- Ski jump track setting system (2)
- Scoreboards (1 permanent, 1 portable)
- Tools and equipment for operations and maintenance
- Timing systems
- PA systems
- Event equipment
- Furniture and Fixtures for buildings

The estimated cost for the above equipment is approximately \$5 million, including Cross-Country rental shop equipment and fit-out, as well as kitchen fit-out in the Day Lodge (and contingency).

5.2 Pre-Games Operations

The pre-Games Operation will commence with the delivery of the permanent construction facilities in December 2007, and end with the start of VANOC's exclusive Games period in January 2009. The pre-Games Operations will focus on preparing the venue and VANOC for the Olympic and Paralympic Games, but will also include periods and opportunities for recreational activities to enhance a smooth transition to the post-Games Legacy operations.

The following pre-Games activities will take place at the Nordic Centre:

- Cross-Country skiing and training for elite and competitive athletes, recreational skiers, club and regional teams and programs
- Cross-Country competition events
- Biathlon training for elite and competitive athletes, club and regional programs
- Biathlon competition events
- Ski jumping training for National Teams
- Ski jumping competition events
- Summer training for athletes, clubs and regional teams on biathlon shooting range, rollerski trails and other trails
- Venue tours and information for public and visiting groups, both summer and winter
- Other public programs (tbd)

To support these activities, the following operational elements and resources will be in place:

- Venue management and administration
- Road maintenance and winter plowing

- General facility, site operation and maintenance (winter and summer)
- Sport equipment maintenance
- Winter trail grooming operation, summer trail maintenance
- Biathlon shooting range maintenance, operation and safety management
- Ski jump hill snowmaking, preparation and grooming, ski lift and safety services
- Day Lodge operation and public services:
 - Recreational skiing and visitor services
 - Snow-shoeing
 - Ski and snow-shoe rentals
 - Ski school programs
 - Group and private ski lessons
 - Food service
 - Conferences, meetings, seminars etc at Day Lodge

The planned implementation timeline for operations during this pre-Games period is as follows:

May 2006 – November 2007:	Venue construction and commissioning Snow grooming during winter months, restricted access Staffing, equipment and operations planning
December 2007 – April 2008:	Daily winter trail grooming and snow maintenance Range operation and maintenance Ski Jump and lift operation Recreational skiing and Ski Club programs National and Continental Test Events Road and snow maintenance Minimal Day Lodge operation
May 2008 – November 2008:	Venue construction upgrades Public tours and Games information Athlete, club and team training and use of trails/range Limited Day Lodge operations
December 2008 – April 2009:	Daily winter trail grooming and snow maintenance Range operation and maintenance Ski Jump operation Recreational skiing and Ski Club programs Program coordination International Test Events Road and snow maintenance Day Lodge operation
May 2009 – November 2009:	Temporary facility construction & setup/Games readiness Public tours and Games information Day Lodge summer operations

December 2009:	Daily winter trail grooming and snow maintenance Range operation and maintenance Ski Jump operation Recreational skiing and Ski Club programs Program coordination Road and snow maintenance Minimal Day Lodge operation
January - April 2010:	Games exclusive period Olympic and Paralympic Games
May – July 2010:	Games de-commissioning and site restoration

5.2.1 Site Access

The general public and organized backcountry user groups in both the summer and winter seasons will be accommodated wherever possible in their need to gain access through the site. If it is determined that the management of the tenure requires formal agreements with certain public recreational groups, they will be developed as needed.

VANOC will ensure that summer recreation amenities at Madely Lake are maintained for public users during the summer months. This includes keeping access via Branch 04 open to the general public, as well as keeping the walk-in camping, hiking/biking trails and boat launch open wherever possible. Periodic closures of these amenities for safety and security reasons may still be necessary.

Access restrictions for the general public and organized groups will be necessary in the proposed tenure area associated with the installation of temporary Olympic/Paralympic infrastructure in the fall and winter of 2009-2010. A summary of the closures is provided below:

September – November 2009	Access restrictions to various parts of the tenure core (Olympic) area due to an assortment of construction activities associated with Olympic/Paralympic Overlay installations
November 2009– January 2010	Recreational trails will be open to the public; core area and all Olympic trails will be closed to Public
February – April 2010	All recreational trails and all Olympic/Paralympic competition trails closed to the public.
April - June 2010	Restricted access throughout the tenure area due to Olympic/Paralympic cleanup.

5.3 Test Events

IOC standards require WOP to host World Cup level events the year before the 2010 Olympic Games to test the venues. The 2010 Organizing Committee intends to hold regional, national and continental cup events two years prior to the Games in order to test WOP venues to the greatest extent possible. These pre-Olympic events will include all four sports disciplines – cross-country, biathlon, ski jumping and Nordic combined.

Table 8 Draft Test Event Schedule

YEAR	MONTH	DATES	DISCIPLINE	EVENT
2008	January	4 - 6	Ski Jumping (SJ)	Canadian Championships
	January	19 - 20	Cross Country (CC)	BC Cup
	January	26 - 27	Biathlon (BT)	BC Cup
	February/March	28/1 - 2	SJ / NC	FIS & Continental Cup
	March	16 - 23	Cross-Country	Canadian Championships
	March	24 - 30	Biathlon	Canadian Championships
	Summer			
	November	20 - 30	Ski Jumping	Training Camp
2009				
	December	12 - 15	NC	FIS World Cup B
	January	4 - 6	SJ / NC	Canadian Championships
	January	15 - 18	CC	FIS World Cup
	January	22 - 25	NC/SJ	FIS World Cup
	March	4 - 8	BT	IBU World Cup
	March	12 - 15	IPC Nordic	IPC World Cup Finals
	March	22 - 28	BT	Canadian Championship, Cadets
	Summer			
	November	20 - 30	SJ / NC	Training Camp
	December	TBD	BT/CC	North American Cup
2010	February	12 - 28	All	Olympic Games
	March	12 - 20	IPC Nordic	Paralympic Games

5.4 Olympic/Paralympic Overlay

Temporary Olympic and Paralympic infrastructure installation constitutes the 'Overlay' process. Installation of temporary structures will be coordinated with VANOC's Venue Overlay Function as part of the Games site preparation and overlay activities. Major overlay activities will be undertaken in 2009 in preparation for the Games and may include:

- AV (Audio / Visual)
- Cable Management/ Cable Transfer System
- Flagpoles
- Temporary F/B (Food and Beverage)

- Fencing
- Heavy Equipment Rental
- Lighting
- Look/Pageantry
- Rigging
- Seating
- Scaffolding
- Signage
- Staging
- Storage Containers
- Temporary Power (if required)
- Tents
- Toilets
- Trailers
- Tribunes/media positions

Figure 29 Olympic Overlay Site Layout

5.5 Olympic Games-Time

The 2010 Olympic Games will be held over a 17-day period from February 6 to February 21, 2010. WOP will host events in four sports disciplines - cross-country, biathlon, ski jumping and Nordic combined. Up to 30,000 people per day are expected at WOP during the Olympic Games. This number includes spectators, athletes, sponsors, IOC and technical officials, broadcasters and press personnel, volunteers and other support staff. The following are estimates of visitation during Games-time, by source:

From Olympic Village:

- 280 Cross-Country athletes
- 220 Biathlon athletes
- 75 Nordic Combined athletes
- 70 Ski Jump athletes
- Coaches/Team Service: 565 (close to a 1:1 ration between athlete and team service)

Others:

- Spectators: 20,000 per day
- Press: 500 – 600 per day
- Broadcast: 3 – 400 per day
- Staff & Volunteers: 1500 - 1800 per day
- Olympic VIPs: 4 – 500 per day

The 2010 Paralympic Games will follow the Olympic Games and last for ten days in March 2010. WOP will host the cross country and biathlon competitions for the Paralympic Games. A maximum of 6,000 people per day will be in the Callaghan Valley during the Paralympic Games. The following are estimates of visitation during Paralympic Games-time, by source:

From Paralympic Village:

- 170 Cross-Country and Biathlon athletes
- Coaches/Team Service: 150 (close to a 1:1 ration between athlete and team service)

Others:

- Spectators: 5,000 per day
- Press: 100-200 per day
- Broadcast: 50 per day
- Staff & Volunteers: 500 - 600 per day
- Paralympic VIPs: 100 -200 per day

5.6 Decommissioning and Legacy Conversion

Following the Games operation, WOP site will be decommissioned throughout the summer of 2010. Decommissioning involves removing the temporary Olympic and Paralympic overlay and site reclamation as required. Major decommissioning works will take place immediately following

the Paralympic Games and continue as required through April and May, 2010. Some overlay components may be in place until snow has receded in the summer months.

VANOC has committed to decommissioning the site in environmentally sensitive ways, and is committed to do so as part of the Environmental Assessment process. VANOC is responsible for developing Decommissioning and Reclamation Plans that detail how overlay and asset reclamation post Games will take place. VANOC requires government approval of these plans prior to implementation. Consultation with owners regarding legacy operations will be required.

5.6.1 Temporary Facilities

Olympic overlay infrastructure that will be removed reflects installation described in Sec. 5.4.

5.6.2 Permanent Facilities

Permanent structures that will remain after decommissioning include:

- Stadiums and competition management buildings at the cross country, biathlon and ski jump venues;
- Ski jumps (K90 and K125);
- Ski lift;
- Competition trails;
- Some of the team cabins/waxing huts at each of the three venues;
- Day lodge (which ultimately will contain with washrooms, cafeteria, offices, changeroom/lockers and large open sitting area);
- Maintenance yard;
- Water treatment/well facility;
- Wastewater treatment facility;
- Most roads and bridges; and
- Legacy recreation trails

5.6.3 Site Remediation

Site remediation will be a function of to-be-developed government approved Decommissioning and Reclamation Plans. Such plans will outline specific opportunities for site remediation and detail specific action plans to achieve the agreed upon ends.

While it is impossible to be specific about these plans at this time, it is expected that approximately 50% of the parking areas, including most of the parking at the main entrance will be removed using a backhoe and dump trucks. Some team cabins/waxing huts will be removed; others may be moved. All disturbed areas will be planted with native vegetation.

5.7 Pre-Games Operations Summary

The following table describes a preliminary schedule of activities at the 2010 Nordic Centre at Callaghan Valley in the period between the Public Opening of the venue in December 2007, and the end of the Paralympic Games and decommissioning in the spring of 2010.

Table 9 Pre-Games Operations Summary and Visitation

Date	Event/Activity	# of persons at venue
2007 – 2008 Winter season		
Nov 15, 2007 – April 15, 2008	Base Winter Operations, Completion of construction	20 -30 operations staff 20 – 30 construction staff
Jan 1, 2008 – April 1, 2008	Public skiing	100-300 per week day 500–1000 per weekend day
Jan 1 – 6, 2008	Ski Jumping National Championship	30 – 40 skiers 100 event volunteers 100 – 500 spectators
Jan 17 – 20, 2008	Cross-Country BC Cup	300 skiers 200 parents & coaches 120 event volunteers
Feb 28 – March 2, 2008	Ski Jumping/Nordic Combined World Cup B	80 skiers 60 coaches & parents 100 – 500 spectators 150 – 200 officials
March 16 – 23, 2008	Cross-Country National Championships	400 – 500 skiers 200 coaches and parents 100 – 800 spectators 150 officials
March 24 – 30, 2008	Biathlon National Championships	150 – 200 skiers 100 coaches and parents 100 – 800 spectators 150 officials
2008 Summer season		
April 15 – Nov 15, 2008	Base Summer Operations	10 -15 staff
May 15 – November 1, 2008	Public tours and visits	50 - 100 per week day 100 – 200 per weekend day Possible weekend special events with 500 people
2008 – 2009 Winter season		
November 15, 2008 – April 15, 2009	Base Winter Operations	20-40 (staff)
Dec 1, 2008 – April 15, 2009	Public skiing	100-500 per week day 500–1500 per weekend day
Jan 1 – 6, 2009	Ski Jumping National Championship	30 – 40 skiers 100 event volunteers 100 – 500 spectators
Jan 15 - 18, 2009	Cross-Country FIS World Cup	200 skiers 150 coaches 400 event volunteers 500 – 1500 spectators
Jan 23 – 25, 2009	Ski Jumping/Nordic	140 skiers

	Combined FIS World Cup	100 coaches 400 event volunteers 500 – 2000 spectators
March 5 – 8, 2009	Biathlon IBU World Cup	200 skiers 100 coaches 400 event volunteers 500 – 1500 spectators
March 12 – 15, 2009	IPC Nordic World Cup	150 skiers 100 coaches 300 event volunteers 500 – 1000 spectators
2009 Summer season		
April 15 – Nov 1, 2009	Base Summer Operations	10 – 15 staff
May 15 – November 1, 2009	Public tours and visits	50 - 100 per week day 100 – 200 per weekend day Possible weekend special events with 500 people
August 1 – November 1, 2009	Games setup projects - construction - overlay Special events	100 – 200 construction and VANOC staff during week days Up to 500 on weekend days
2009 – 2010 Winter season		
November 1 – December 30, 2009	Games venue preparation and maintenance, start of winter operations	30 - 50 staff
December 10 – 13, 2009	Olympic test events	250 skiers 200 officials 100 coaches 100 – 500 spectators
January 1 – February 1, 2010	Games exclusive setup Games staff in place Olympic volunteers projects	100 - 200 VANOC staff 100 construction staff Special events with 200 – 300 volunteers on weekends
February 1 – 11, 2010	Olympic Games training	1500 - 2000 athletes and staff per day
February 12 – February 28	Olympic Games	25,000 persons per day*
March 1 – March 5	Games transition	300 staff per day
March 6 – March 9	Paralympic Games training	500 - 600 athletes and staff per day
March 10 – 21, 2010	Paralympic Games	5000 - 8000 persons per day*
March 22 – April 15, 2010	Immediate de-commissioning of Games	150 – 250 staff and construction workers per

		day
April 15 – June 1, 2010	Continuing decommissioning of venue	100 staff and construction workers per day
Transition to Whistler Legacy Society		

6 Legacy Operations

6.1 Whistler Legacy Society

6.1.1 Background

The establishment of the Whistler Legacies Society (WLS, the Society) was provided for in the Multi- Party Agreement for the 2010 Winter Olympic and Paralympic Games (MPA) for the purposes of owning, managing and operating the Whistler Olympic Park (WOP), the Whistler Sliding Centre (WSC), and the Whistler Athlete Centre. Ownership of these three facilities will transfer to the WLS once the 2010 Games are completed.

The Society's goals are to:

1. to own, manage and operate or supervise to oversee the management and operation of the Nordic Centre, the Sliding Centre, the Athlete Centre and any other sports facility in the Resort Municipality of Whistler which is created for use during the 2010 Olympic and Paralympic Winter Games whose ownership, management or operation is transferred to the Society;
2. to make the facilities owned, operated or managed by the Society available for use and access by such persons or group as determined by the Board including without limitation to amateur sport groups and persons or groups for the development of high performance athletes;
3. to receive funds and other property from all sources and to hold and invest such funds and property and to administer and to use such funds and manage such property for the purposes of the Society;
4. to develop sources of income as may from time to time be appropriate, including without limiting the generality of the foregoing, carrying on such business or other activities as are incidental to the foregoing purposes and to further the purposes of the Society;
5. to enter into management agreements, operating agreements or other similar type agreements, as may be necessary to carry out the purposes of the Society;
6. to lease, sub-lease or license or grant rights of occupancy to or tenancies in any property owned, managed or operated by the Society;
7. to acquire by lease, purchase, or otherwise such real property and personal property as may be necessary to carry out the purposes of the Society and to dispose of such real and personal property as may be determined; and
8. to do all such other things as are incidental and ancillary to the attainment of the foregoing purposes and the exercise of the powers of the Society.

In addition to the WLS, the 2010 Games Operating Trust (GOT) Society has been formed to hold and manage the endowment funding that will be provided by the Governments of Canada and British Columbia for the future maintenance of Olympic facilities. The WLS will have annual access to the endowment fund to help cover the administrative, operating and capital maintenance costs that are in excess of WOP's annual operating income.

WOP will be operated as a not-for-profit business and a key objective of the WLS will be to maintain WOP's sport training and development focus while encouraging the commercial recreational activity and associated revenues needed to maximize earned revenue. While the intent is to operate the commercial aspects of the facility on a self-sustaining basis, ongoing subsidies will be required to support the sport development components of the operation. Additionally, it may be necessary to draw on the principal of the Endowment Fund to fund significant future capital upgrading and to cover shortfalls in operating revenue.

6.1.2 Organization & Management

The membership of the WLS Board of Directors includes:

- One member nominated by the Government of Canada; (declined)
- One member nominated by the Government of the Province of British Columbia;
- One member nominated by the Resort Municipality of Whistler;
- One member nominated by the Canadian Olympic Committee; (COC)
- One member nominated by the Canadian Paralympic Committee; (CPC)
- One member nominated by VANOC;
- One member nominated by the Band Council of the Lil'wat First Nation; and
- One member nominated by the Band Council of the Squamish First Nation.

In December 2006, prospective members met to discuss the three organization options for the WLS. Attendees agreed that a 'Director Operator' business management model would serve the WLS most effectively. The Direct Operator model will require the engagement of a full-time Chief Executive Officer (CEO) and core functions staff. The CEO will have three direct reports:

1. General Manager - Sales and Marketing
2. General Manager - Finance and Administration
3. General Manager - Sports, Programs and Facilities

The General Manager Sports, Programs and Facilities will have three direct reports, these being the Managers for each of three facilities (WAC, WOP, and the WSC). This organizational arrangement is presented graphically in Figure 27.

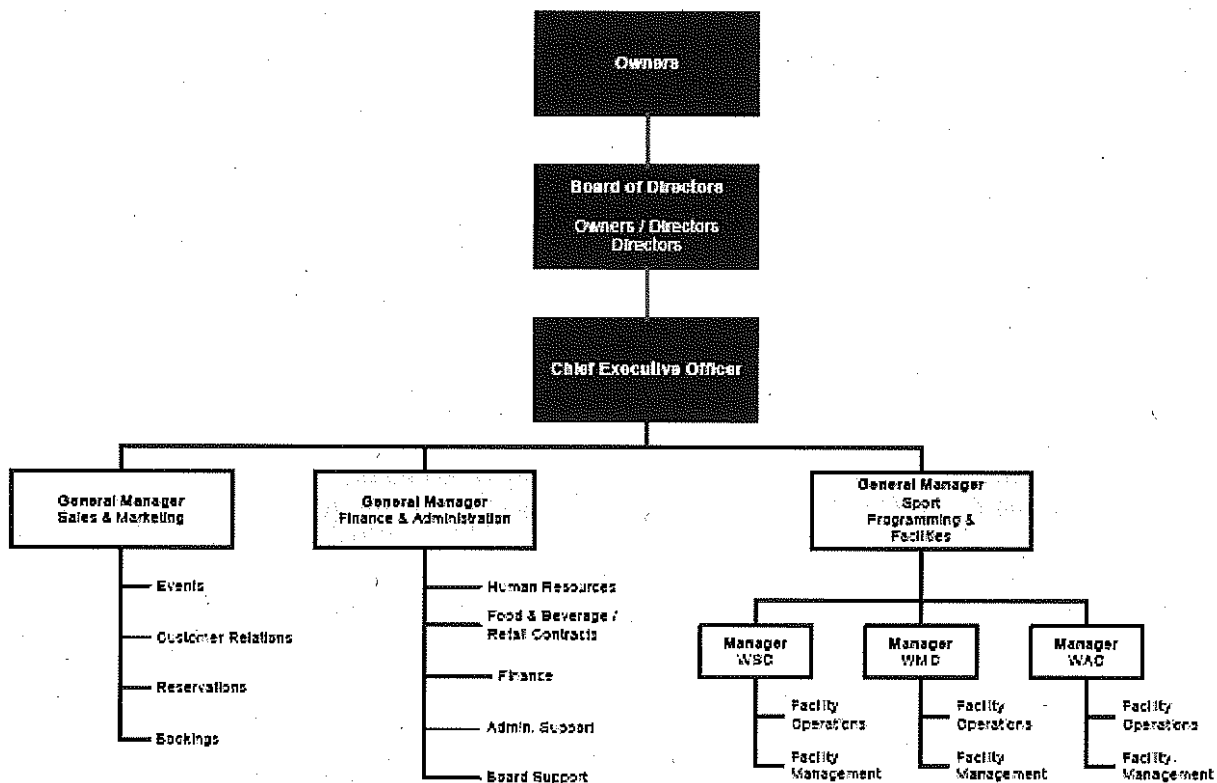


Figure 30 Organizational Structure for Direct Operator Management model of WLC

6.2 Land Use in Legacy Operation

It is anticipated that WOP and associated Legacy trails will be a unique entity, designed to offer a complementary mix of sport and recreation activities to enhance the visitor experience of the Whistler Resort and preserve the legacy of the 2010 Olympic and Paralympic Games. WOP will be available to host national and international competitions and serve as a year-round training ground for developing high performance athletes. Core businesses will focus on cross-country skiing and biathlon activities, similar to the Olympic venues at Canmore, Alberta and Soldier Hollow in Utah, as well as snow play recreation. The addition of a network of recreation trails will attract destination skiers in addition to the local market. Improvements to the Sea to Sky Highway and upgraded access to WOP will reduce the drive time to Vancouver to less than two hours and increase the local area market significantly by providing access to the Vancouver, Pacific North West and long haul travel markets using the international airport.

Although public use of the valley is expected to increase, activities that could cause physical disturbance will decrease. There currently are no plans for future timber harvesting in the valley, although the area will remain under Ministry of Forests' jurisdiction. Under the proposed tenure, the recreational trails and Nordic trails will be closed to other commercial recreation and public motorized uses. Thus, snowmobiling, ATV-ing and 4x4-ing in the Madeley Creek watershed will be greatly reduced or cease.

Figure 31 Site Concept for Legacy Operations

6.3 WOP Legacy Phase Business Plan

6.3.1 Business Concept

Ownership of WOP infrastructure and facilities will be turned over to the Whistler Legacy Society (WLS) which will have responsibility for the long-term operation of the site. In keeping with the vision for the site, it is intended that WOP will be operated so as to provide a unique, ongoing legacy for both sport development and recreational activity. Additionally, it is intended that the facility will incorporate a range of revenue generating activities so as to reduce its dependence on endowment funding.

WOP has the potential to become a very active and significant sport and recreational resource for the Sea to Sky region and a tourism destination for the province. WOP will operate year-round; most activities will occur during the winter and summer seasons. The winter season will be 136 days in length and extend from approximately November 22nd to April 7th, with early season training camps starting as early as November 1st depending on snow conditions. The summer season will be about 129 days in length and extend from approximately June 1st to October 7th.

Research indicates that other North American Olympic Nordic facilities have been under-utilized and have struggled financially in their post-Games periods as a result of initial and post-Games re-investment decisions, lack of an aggressive Nordic activity program and inadequate marketing. In order to avoid this situation at WOP, the activity development goals outlined in this section aim to balance the commitment to addressing the "venue operating principles" to provide and actively market a range of revenue generating activities.

This plan has been evolving along with the development of WOP site over several years. The intent of the original business plan was to help guide core venue design, to identify and assess the market and financial implications of post-Games legacy options, to use in support of stakeholder consultations, and to support project-related submissions to the Environmental Assessment Office and the SLRD. Now that venue construction is underway, the emphasis here is to define a long-term operating model for the site that balances sport legacy protection with financial sustainability.

6.3.2 Marketing Projections and Plans

This section presents the core activity program proposed for the post-Games operating period of WOP, divided into the categories of sport use and recreational use.

6.3.2.1 High Performance Sport Training and Competition

A) Cross Country Skiing

The 22 km of trails developed for Games competitions will be available for cross country sport use following the Games. It is anticipated that these trails will be used by the following high-performance athlete training programs and competition events:

- **National Team Development Centre:** Cross Country Canada has established the Callaghan Valley Training Centre, whose primary orientation is to athletes of post-secondary school age, with the centre serving as a stepping stone to National Ski Team. The CVTC is open to athletes from across the country, though the goal is that the majority of applicants will be graduates of provincial and regional programs.
- **National Team:** The National Cross Country Ski Team is expected to utilize the WOP as a preferred off-site training camp site, based on its low altitude, early season snow, and dry-land training opportunities. The existing facilities in Canada – Canmore, Alberta; Thunder Bay, Ontario; and Val Cartier, Quebec – are expected to be complementary to, rather than competitive with, the WOP, as the Callaghan Valley has some unique site and weather conditions that will make the facility attractive for specific national training. Training camps may involve one or all of the senior team (eight to ten athletes), development team (eight to ten athletes), and junior team (four to eight athletes) as summarized in the following table. For the purposes of this plan, it is assumed that 24 athletes from the three National teams will use the site one month per year.
- **Competition Events:** The WOP is the first world-class calibre cross country competition facility in B.C., which enables it to host provincial championships, national championships and World Cup events. It is anticipated that the WOP will be a preferred competition venue for high-level races on the domestic event calendar. This will likely translate to an average of one NorAm Canada Cup or National Championship level event (several competitions) per year being scheduled for the site (each involving 350 to 400 participants). As well, Canada hopes to become a host of FIS World Cup events on a regular basis, and the WOP will be a natural candidate to host such events. FIS scheduling considerations are evolving, but the current outlook indicates that Canada will likely receive World Cup dates every second or fourth year. In addition to these international competitions, the WOP will also target national, provincial and local competitions including:
 - **Coast Cup Series** – intended for developing athletes that aspire to become high performance skiers, with three to four races annually. The WOP would fill a void in suitable facilities for this purpose so that local skiers can become competitive with skiers from other parts of the province and country.
 - **BC Midget Championships and BC Sprint Championships** – would be held occasionally but not during the same season that a BC Cup or other major provincial event is held at the WOP.
 - **BC Cup Series** – this series of three weekends of racing that prepare athletes for national level competition will likely be held at the WOP every two years. Such events would attract a significant support group of officials, parents and coaches.
 - The WOP will also host recreational races of varying lengths known as “loppet” and has the potential to become a world-class loppet venue given its snow quality, Olympic history, extensive ski terrain and trail system, and scenic setting.

Following is a summary of the projected competitive cross ski events that could be hosted at the WOP.

Table 10 Projected Cross Country Skiing Competition Event Participation

Type of Event	Estimated Competitors	Estimated Spectators	Frequency
World Cup	170	500 – 1000	1 every 3 years
Canadian Championships	350	500	1 every 5 years
Continental Cup FIS	350	500	1 per year
Provincial Championships	200	200	1 every 2-3 years
BC Cup	200	200	1 per year
Coast cup	100	N/A	every 2 weeks
World Loppet	2,000+	500 – 1000	1 per year
Local Races	75	N/A	weekly

Cross Country BC (CCBC) organizes and legislates all competitive cross country ski activity in the province. BC has 58 cross country ski clubs organized under CCBC that represent 13,000 members. In 2001, over 4,600 people were issued cross country ski racing licences in B.C. It is anticipated that a significant number of these athletes will use the WOP for competitions. In addition, approximately 30 to 40 of these licensed racing athletes are elite athletes who actively train year-round and would use the WOP as their permanent training site.

There will be no charge for training and competitive use of the WOP by Canada's National Teams. Other sport users will be charged \$10 per person to use the site for training or competition purposes in the winter and \$5 per person to use the site for competition purposes in the summer.

B) Biathlon

The biathlon trails and shooting range developed for Games competitions will be available for biathlon sport use following the Games. It is anticipated that these facilities will be used by the following high-performance athlete training programs and competition events:

- **National Team:** The National Biathlon Team is expected to utilize the WOP as a preferred off-site training camp site. At present, there are only two biathlon sites in Canada -- Valcartier, Quebec and Canmore, Alberta -- that can host world-class international level biathlon training. Biathlon ranges are also available at Mt. Washington, Silver Star, Hemlock Valley, Quesnel and Vanderhoof, and shooting ranges are available in Squamish and Pemberton.
- **Competition Events:** The WOP is the first world-class calibre biathlon competition facility in B.C., which enables it to host provincial championships, national championships and World Cup events. Events of this magnitude could attract up to 500 athletes and team support staff, and more than 1,500 spectators per day (10,000 over the course of the event). As the only biathlon venue in BC capable of hosting a National Championship, the WOP is expected to host the National Championships and the Cadet National Championships every two to three years. Additionally, it is expected that the Western Canadian Championships could be held at the WOP every two to three years and the Cadet Regional Competitions could be held annually. Biathlon BC currently has six BC Cup competitions per year and

would look to the WOP to host additional early season and late season competitions, due to the Callaghan Valley's lengthy snow season.

The potential frequency of competitive events is summarized below.

Table 11 Projected Biathlon Competitive Event Schedule

Type of Event	Frequency
National	1 every 3 years
Provincial	1 per year
Local	bi-weekly

There will be no charge for training and competitive use of the WOP by Canada's National Teams. Other sport users will be charged \$10 per person to use the site for training or competition purposes in the winter and \$5 per person to use the site for competition purposes in the summer. Rifles and ammunition will be available for rental for \$10.

C) Ski Jumping

The WOP is the home of the only homologated Large Hill ski jump in Canada and one of only (2) homologated Normal Hill ski jumps. The homologation for the Calgary Normal Hill will expire in 2012 and the site will require significant financial resources to achieve a new homologation. This may leave the WOP Normal Hill as the only homologated Normal Hill and therefore the only site capable of hosting FIS events. The WOP is ideally suited for Nordic Combined athletes for winter training, due to the proximity and quality of its cross-country ski trails. It is anticipated that the ski jumps will be used by the following high-performance and development purposes:

National Teams: National Team athletes (Ski Jumping Men/Women and Nordic Combined) are expected to train at the WOP for 2-3 one-week training camps per season. One early season, one mid season, and one late season (approximately 14-18 athletes).

Development Athletes: Development and provincial level athletes (primarily from Alberta) are expected to train at the WOP for 1-3 one-week training sessions per season (approximately 10-12 athletes). This would likely overlap with National Team training.

Club Training: Would be expected to train 1-2 one-week training sessions per season (approximately 10-20 athletes).

Competition Events: The WOP would be the primary competition venue in Canada because it is the only site with a homologated Large Hill and Normal High at the same site. It is expected that the National Championships will be held at the WOP every year, the North American Juniors every 3 years, and a Continental Cup event in either Ski Jumping men/women or Nordic Combined every 2-3 years. It is expected that one additional national level event will be hosted every year. Any plans for hosting a Nordic World Junior Championships or Senior World Championships would include Ski Jumping, Nordic Combined, and Cross-Country.

Table 12 Event Types and Frequency, with Visitation

Type of Event	Estimated Competitors	Estimated Spectators	Frequency
Continental Cup FIS (SJ/NC/L)	70	500	1 every 2-3 years
North American Juniors	100	500	1 every 2-3 years
Canadian Championships	40	500	Annually
Domestic Competition	40	500	Annually

In summary, the Large and Normal Hills will typically be made operational for 5-6 weeks per winter, unless there is a major change in the structure or orientation of the National Team's programs and/or a local club is able to produce athletes who are able to jump regularly on these hills.

The National team athletes currently train at the WOP at no charge. Typical rates for using ski jumping facilities are approximately \$25 to \$30 per day.

6.3.2.2 Youth Sport Development

The WOP will be heavily utilized by eight regional cross country ski clubs and the provincial sport organizations. Up to 500 young skiers would use the facility one to three times per week through club or regionally organized training activities during the peak season. It is important to note that this region is behind other regions of the province in establishing programs of this kind, and that the number of young skiers has increased rapidly over the past few years. It is anticipated that this growth trend will continue as a result of opportunities created by the new facility and the momentum of the Olympics. Cross-Country BC has established the Squamish Nordic Ski Club to develop youth cross-country skiing athletes and the Callaghan Cross-Country Ski Club to act as a cross-country skiing event hosting organization. These clubs will cooperate with the existing CCBC Whistler Nordics Ski Club and several lower mainland CCBC clubs (including the Holyburn Jackrabbits and West Coast Nordics).

The Callaghan Winter Sports Club has been incorporated to be a multi-sport Nordic club to support youth development of cross-country, biathlon, and ski jumping athletes. Currently there are approximately 90 active biathletes in the Pemberton-Vancouver-Chilliwack corridor and it is expected that these biathletes will use the WOP facility and cooperate with the Callaghan Winter Sports Club for weekend camps, club practices, and club camps. This club will also begin to stimulate the development of ski jumping youth, with a focus on drawing children from the Sea to Sky corridor's alpine skiing community.

6.3.2.3 Recreational Activities

A) Cross Country Skiing

The WOP biathlon and cross country competition and recreational skiing trails will be available for cross country skiing use. The overall trail system will include terrain suitable for all skill levels and totals approximately 60 km. A subset of the trails will be lit for night skiing to meet demand from recreational skiers who are interested in skiing after work. Cross country skiing will be available from December to April (and possibly longer, if snow cover is adequate).

Target Markets: The recreational cross country skiing target markets for the WOP will include:

- Whistler, Squamish and Pemberton residents;
- Vacationing skiers from around the world who currently use the Whistler municipal cross country trail systems and the WhistlerBlackcomb alpine trail systems;
- Greater Vancouver residents who currently use Cypress Bowl and Manning Park as their principal day skier destination;
- Destination skiers from Washington (primarily Seattle), Ontario and Alberta who are on a multi-day cross-country ski vacation; and,
- Cross country skiers from locations in B.C. other than Greater Vancouver who want to experience the WOP high quality trail system.

As the WOP has good snow conditions and market access, skier visits to the site may be significantly influenced by the length of cross country ski trails available. The following estimate of potential skier visits was prepared for the venue during the business planning process based on an early assumption that approximately 100 km of trails could be provided, which has been enabled through a partnership with Callaghan Country Wilderness Adventures and their neighbouring trail network.

A weakness of the venue is the lack of on-site accommodations, which many of its competitors offer. The first step towards providing a moderate level of on-site accommodation will be to work with local ski clubs who are demonstrating an interest to build club cabins at the venue. A suitable area will be identified within the venue for the construction of type of accommodation and approval will be sought from the SLRD government.

Table 13 Cross Country Skier Visit Potential – 2015

Skier Origin	Skier Visit Potential
Whistler	10,000
Greater Vancouver	25,000
Other BC	5,000
Destination skiers	15,000
Competitive skiers in training	5,000
Total	60,000

As shown in the above table, an estimated 60,000 skier visits will be generated annually by 2015. These projected skier visit levels are comparable to Mt. Washington and Silver Star Mountain/Sovereign Lake both of which have a successful club infrastructure and offer over 100 km of trails. Based on the inaugural 2007-8 season, which saw 30,000 skier visits of which roughly 12,000 were paid visits, it is forecast that in the first post-Games season of 2010-11 the WOP will attract approximately 20,000 paid skier visits.

Within these figures, a key market for the venue will be participants in cross country ski competitions. In addition to the high-performance race events that the WOP will host regularly, the venue will also host recreational races of varying lengths known as "loppet" and has the

potential to become a world-class loppet venue given its snow quality, Olympic history, extensive ski terrain and trail system, and scenic setting.

Competitors: The ski areas that could be impacted by the WOP include Callaghan Country Wilderness Adventures, as well as the cross-country trails in Whistler, on Cypress Mountain and in Manning Park. Callaghan Country Wilderness Adventures, which focuses its business on overnight lodge guests looking for a back country ski touring, will benefit from the WOP. Paved access, the presence of a large day skier market at the WOP, and pre-Games/Games television coverage of the area, are expected to raise the exposure of the company to large, new markets.

The Municipality of Whistler currently operates 32 km of groomed trails in and around the town of Whistler. The Callaghan Valley has superior snow conditions and will offer a more extensive trail system. Experienced cross country skiers will likely prefer the WOP. The management of the Whistler municipal trail system are expecting a drop in skier visits once the Callaghan site is operations. However, the Whistler trails will always be attractive to casual users and local residents because of their convenient location directly in the town site area. Overall, it is estimated that the number of skiers using the Whistler municipal trails will decline by 20% to 25%, although this decline should be mitigated to some extent through joint marketing campaigns with the WOP.

The most successful commercial cross country ski area in the region is operated by Cypress Bowl Recreations, which is located within a 20 minute drive of downtown Vancouver. Cypress Bowl offers 19 km of groomed trails and annually records 90,000 to 100,000 skier visits. As the Callaghan Valley has superior snow conditions and will offer a more extensive trail system, the WOP has started to capture a portion of the Cypress Bowl market, particularly the more experienced weekend cross country skiers and the dedicated competitive athletes.

The WOP may also have a small impact on Manning Park as it will become a viable alternative ski destination for Lower Mainland residents. Other cross country ski areas in B.C. are not expected to have a discernable impact on WOP operations because of their distance from the site.

In general, the greatest competition faced by the WOP is not other cross country ski areas but other winter recreation activities such as alpine skiing, snowboarding, and snowmobiling.

Pricing: The planned daily trail fee at the WOP will be approximately \$22 by the 2010-11 season (price set at \$20 in the 2008-9 season). Season's passes, youth rates, and night skiing rates will also be made available and are being tested and refined during the pre-Games operational years. The WOP will have an accredited ski school that will be used for teaching cross-country skiing and a biathlon range teaching program. The WOP ski school will be operated on a concession basis by existing instructors in the area and the average price per person charged for participating in teaching programs will be \$35 for adults and \$25 for children. Guided skiing tours of the venue will also be available.

B) Snowshoeing

Approximately 15 km of snowshoe trails separate from the biathlon and cross country ski trails will be available at the WOP. Snowshoers will be able to access these trails on a user fee basis and snowshoes will be available for rent through the rental/lesson shop in the day lodge. Guided snowshoe tours will also be available. Snowshoeing will be available from December to April (and possibly longer, if snow cover is adequate).

Target Markets: Snowshoeing appeals to a wide range of age groups, though most participants are adults. Some children are being introduced to the activity through school programs. WOP snowshoers will primarily come from Whistler, but the venue also draw participants from Squamish and Vancouver. Cypress Mountain records up to 50,000 snowshoe visits per year – which represents 30% of their cross country skier volume. The snowshoe market is currently growing at a fast pace and there is some belief that future snowshoe visitor volumes will eventually match cross country visitor volumes. Approximately 300 to 400 guided snowshoe trips per day occur currently at Whistler via existing operators.

Pricing: A fee of \$8 per day per person will be charged for access to snowshoe trails. The combined cost for snowshoe rental and trail access will be \$26.

C) Luge Tobogganing, Tubing, and Children's Snow-Play

A luge tobogganing run will be maintained on one of the ski jump access roads, which will be accessed by the ski jump chair lift. This activity will be complimented by a children's snow-play area that will include a small tube park and a terrain park suitable for younger families. The hill at the tube park will be serviced by a moving-carpet lift or a handle-tow lift. Additionally, a Nordic terrain park will be included as part of the cross country ski trail system adding to the site's activity options for children. Three two-hour luge and snow-play sessions per day will be offered, Friday through Sunday for the first few seasons of operation to assess demand.

Target Markets: Luge, tubing, and snow-play users will largely be family groups that include children ranging in age from preschoolers to teenagers. However, research indicates that adults make up a surprisingly high 50% of snow-play participants. Additionally, adults may be in attendance at a snow-play area to support their children's activities but not participate in activities. The market for snow-play users at the WOP will include both visitors to, and permanent residents of, the Sea to Sky region and Vancouver. The potential appeal of the snow-play area to Sea to Sky visitors is believed to be strong as research indicates that Whistler information desk staff are often asked about wintertime snow-play opportunities beyond what is currently provided. These WOP services will be developed to avoid head-to-head competition with WhistlerBlackcomb's new tube park. For the first few years of post-Games operations, the number of snow-play and lugging users is projected conservatively to be approximately 6,000 visitors each per year.

Competitors: Whistler Blackcomb's Tube Park is the only direct competition in the area. The WOP's sliding and play product offering will appeal to a broader age range and will offer a wider variety of activity options than Whistler Blackcomb's Tube Park, and yet it will be priced similarly.

Pricing: The fee for a 2-hour session of lugging will be \$15 and for a two-hour snow-play session will be \$10 per person for a two-hour segment including the rental of a sled/tube.

D) Mountain Biking & Cross Country Running

Some of the winter cross country trails at the WOP are suitable for mountain biking. Mountain biking trails at the WOP would complement the mountain biking experience available at Whistler as the Callaghan Valley offers both more gentle terrain and more intermediate riding opportunities than Whistler does. In addition to recreational mountain biking, eight competition events could be planned for each summer for mountain biking, cross country running and mountain bike biathlon. These events would also provide summer training opportunities for biathlon and cross country ski athletes.

No fees will be charged for mountain biking or cross country running trail use. As with other recreational users, drivers will pay a parking fee of \$5.00 per day.

E) Backcountry Winter Access and Hiking

The WOP will serve as the staging point for a number of alpine touring and ski mountaineering routes as the ploughed road will allow such user groups to gain closer access to high alpine areas in the winter. The Callaghan Valley will also be a popular hiking destination with many of the cross-country skiing trails available for hiking. If winter warming huts are developed, they can be made available for both winter and summer use. There are a variety of trails that connect the WOP with Whistler through interesting high alpine areas such as the Rainbow Lake route. Additionally, the Callaghan Country Wilderness Adventures lodge, which operates near Conflict Lake, offers an excellent hiking destination opportunity for WOP hikers.

A fee of \$6 will be charged to access the backcountry via the WOP in the winter season. Hiking will be free of charge. The food and beverages services of the Day Lodge will be promoted to backcountry users as a great way to end off a challenging trip.

F) Future Recreational Activity Options

In addition to the activities described above, there are a range of additional opportunities that could form part of the WOP business program. These options will not be launched in the first season of operation and will be further evaluated over time:

Option 1 - Additional trail development: This option would involve developing additional trails in the Madelay, Buttress, and Callaghan – Wild Spirit Place areas to bring the total WOP trail network up to 100 km. This would help elevate the WOP's ski destination status, which would help increase skier visits.

Option 2 - Concession activities: This option would involve the provision of activities such as horseback riding, dog sledding and sleigh rides via concession contract. For all three types of concessions, the WOP would provide full marketing, ticketing and access rights to the area. Some modest capital investment would be required (e.g. horse corral).

Option 3 – Resort components: This option would involve the addition of a range of commercial activities including a zip-riding, an outdoor skating rink, hot pools, and/or RV campground. While such developments could add to the profitability of the WOP, they would be capital intensive and involve a degree of business risk.

Option 4 - Youth Camps: The potential exists for youth camps to be held at the WOP. These camps could be built around a range of activities including hiking, horseback riding, camping, canoeing, mountain biking, biathlon range shooting, swimming, rock climbing, and fishing/canoeing at Callaghan Lake. The primary market for youth camps will be youth who reside in the Vancouver to Pemberton corridor.

Option 5 – Ropes/Climbing Course: Family ropes/climbing courses have proven to be very successful in many European mountain destinations and in US theme parks. A course could be built near the Day Lodge that would be appropriate for use by children and young adults. Moderate capital investment would be required.

6.3.2.4 Tours

Both self-guided and guided tours will be offered at the WOP. Self-guided tours will be free of charge, with guests being provided with a venue map that guides them to interpretive signs at various points of interest. Guided ski-jump tours will also be available and will include chairlift access to the top of the jumps for a bird's eye view of the overall venue and a close-up look at the details of Olympic calibre ski jumps. Static displays of Nordic sports equipment and Olympic memorabilia, and video presentations of the history of the sports, are required to add value and ensure an educational and entertaining experience. Unique highway-side signage is required as an important sales tool, since once guests pass the WOP (either heading to Whistler or when leaving Whistler) they will be less inclined to return for a venue tour if they hear about the availability of these once they are in Whistler or Squamish. Guided tours will be offered throughout the summer and winter seasons. No tours will be offered in the shoulder seasons.

Target Markets: Key markets for the tours will be the general travelling public and the conference visitors of Whistler. Research indicates that winter tours to the WOP could attract an average of 50 persons per day, while summer tours could attract up to 150 persons per day. Tour operators who run buses to and from Whistler are a key sub-market for the WOP's marketing efforts to focus on.

Competitors: A wide variety of Whistler activities will be competition to this tour program, including everything from movie theatres, to gondola rides, to bicycle rentals.

Pricing: Self-guided tours will be free of charge and guided ski jump tours will be \$8 per person with discounts given to large tour groups.

6.3.2.5 Corporate and Group Event Hosting

The venue buildings, ski jumps, and biathlon range will be available for corporate and public group event rental. The Day Lodge and Cross-Country Technical Building will be the primary event hosting buildings. The focus will be on attracting clients during the summer months, when

the park is not as well utilized by recreational users, and when there is typically much more corporate event business opportunity in the marketplace.

The Day Lodge includes a catering kitchen, washrooms, showers, storage area, and a 1,900 square foot Athletes' Lounge capable of hosting up to 190 guests (120 if seated at five-foot round tables). The Cross-Country Technical Building contains more event hosting space in the form of a 1,300 square foot meeting room. Other buildings at the facility can also play supporting roles in hosting corporate and group events: the Biathlon Technical Building and Shooting Range, the Ski Jump Start Houses, and the Ski Jumping Judges' Tower.

It is the current plan to contract out catering to local companies on a non-exclusive basis and to require that the WOP is paid 10% of the gross catering fees. Food preparation can either occur on-site in the Day Lodge's kitchen or off-site.

Target Markets: Key markets will include corporate and social events such as business receptions, weddings, sport organization meetings, and corporate team building events that will likely also book biathlon shooting sessions and ski jump tours as part of their events. Marketing activity will be focussed on Destination Management Companies and local event planners.

Pricing: The cost to rent the facilities will be (prices are season dependant):

Day Lodge: \$2,500 to \$5,500 per day

Cross-Country Technical Building: \$1,000 to \$1,500 per day

Biathlon Technical Building: \$1,000 to \$1,500 per day

Ski Jump Start House: \$1,500 to \$2,500 per day, plus \$12 per person

Biathlon Shooting Range: \$1,500 to \$2,500 per day, plus \$25 per person

Stadium Bowl: To be determined based on the needs of the event.

Discounts will be offered to partner and not-for-profit organizations.

6.3.2.6 Public Event Hosting

While the exact nature of these events has not been determined, potential events include: mountain bike races, trail running races, cycling criteriums, and concerts. These events should be scheduled so as to minimize potential conflict with other major events in Whistler, and some could potentially be organized in partnership other major events.

Target Markets: The spectator target market would include all visitors to Whistler, and residents of the Sea to Sky corridor and the Lower Mainland.

Pricing: The price paid by individuals attending non-sport events will likely vary to reflect the nature and quality of the event. Charges will likely range from \$5 to \$50 per person.

6.3.2.7 Retail

The rental/repair shop located in the Day Lodge and will rent cross country skis, snowshoes, and rifles for the biathlon range. The shop will also provide repair services for cross country skis and other recreational equipment used at the WOP and will offer limited retail sales for

items such as WOP clothing, gloves, cross-country ski clothing. The shop may also sell Olympic memorabilia or souvenirs.

Target Markets: All visitors, with key users being recreational and sport cross country skiers, snowshoers and biathletes.

Pricing: Rental fees will be \$16.00 for snowshoes, \$5.00 per rifle, and \$25.00 for cross country skis. Clothing and souvenirs will range from \$5 to \$100.

6.3.2.8 Food and Beverage

Food and beverage services at the WOP will be operated on a concession basis with the WOP receiving 15-20% of the operator's gross revenue. The kitchen will be rented to the concessionaire built out by the venue. [Note: the concession contract is currently being negotiated and will be in place by mid-November 2008.]

Target Markets: All WOP visitors, and the clients of other local businesses such as the snowmobiling tour companies who operate in the Callaghan Valley (Canadian Snowmobile Adventures and Blackcomb Snowmobiling).

Pricing: \$2 to \$20 snacks, beverages, and meals.

6.4 Business and Financial Viability Assessment

6.4.1 Market Analysis

The following discussion is based on September 2001 demographics provided by the Canadian Ski Council as compiled by the Print Measurement Bureau. Approximately 7% of Canadians over the age of 12 (1,746,000) cross country ski. By comparison, approximately 10% of Canadians over the age of 12 downhill ski/ride. The cross country ski market in British Columbia is underdeveloped compared to Ontario and Quebec. Presented on Exhibit IV-1 is the distribution of skiers across Canada. British Columbia is under represented in cross country ski activity as 13.1% of the population of Canada resides in BC while only 10% of the cross country skiers participate in British Columbia. By comparison, 18% of all alpine skiers/riders reside in British Columbia. WOP has the potential to increase cross country skier activity in the Province.

Table 14 Distribution of Skiers in Canada (Canadian Ski Council)

Province	Cross Country		Alpine	
	%	# of skiers	%	# of skiers
Quebec	30%	518,000	31%	827,000
Ontario	34%	598,000	28%	740,000
B.C.	10%	180,000	18%	435,000
Alberta	11%	199,000	13%	353,000
Atlantic	8%	143,000	5%	130,000
Man./Sask.	7%	108,000	5%	135,000
	<u>100%</u>	<u>1,746,000</u>	<u>100%</u>	<u>2,620,000</u>

Cross country skiing is enjoyed by both genders in Canada with 48% of cross country skiers male and 52% female. By comparison, downhill skiing/riding is a male dominated sport with 57% male and 43% female.

Cross country skiing is strongly supported by small towns in Canada with 38% of all cross country skiers living in communities with a population of less than 100,000. By comparison, 33% of all downhill skiers/riders live in communities with a population of less than 100,000.

Household income of cross country skiers is moderately lower compared to downhill skiers/riders with 61% of all cross country skiers having household incomes over \$50,000 compared to 67% of alpine skiers. However, this does suggest that cross country skiers do not come from low income groups and can afford the associated costs of participating in the sport. This is supported by the statistic that 80% of all cross country skiers own their own housing (as opposed to renting).

Cross country skiers are on average older than downhill skiers/riders. However, the activity of skating in recent years has re-energized a new, younger segment of cross country skiers and this trend is expected to continue into the future.

Cross country skiing is enjoying acceptance across a younger demographic that is looking for an emphasis on fitness and an active fun outdoor lifestyle. They are willing to invest in good quality equipment. A good quality cross country ski outfit can cost up to \$1,000 for skis, boots and poles, not that much less than high quality downhill equipment. The new generation of cross country skiers expects a properly run facility offering high quality groomed trails and good quality supporting facilities.

Table 15 Cross Country Ski Destinations Pacific Northwest

Name	Nearby Centre	Commercial, Municipal or Club	Kms of Trails groomed	Adult Trail Fee including GST	Night Lit Track	Biathlon Range	Accommodation
British Columbia							
108 Mile/Hills Health Ranch	100 Mile	Commercial Club	85	\$8.00	No	No	On-Site
Apex Mountain/Nickel Plate	Penticton	Club	36	\$8.00	No	No	At adjacent ski area
Big White	Kelowna	Commercial	25	\$15.00	No	No	At adjacent ski area
Cypress Bowl	Vancouver	Commercial	19	\$15.00	Yes	No	No
Kane Valley	Merritt	Club	42	\$5.00	No	No	No
Larch Hills	Salmon Arm	Club	36	Donation	No	No	No
Logan Lake	Logan Lake	Club	36	\$5.00	Yes	No	No
Manning Park	Manning Park	Commercial	16	\$14.00	No	No	At adjacent ski area
McCullough Lake	Kamloops	Club	65.5	\$7.00	No	No	On-Site
Mount McPherson	Revelstoke	Club	22	\$5.00	No	No	No
Mt. Washington	Courtenay	Commercial	55	\$17.00	Yes	Yes	At adjacent ski area
Oway	Prince George	Club	30	\$8.00	No	Yes	No
Bull Mountain	Williams Lake	Club	25	\$5.00	Yes	No	No
Silver Star/Sovereign Lakes	Vernon	Both	105	\$14.00	Yes	Yes	At adjacent ski area
Smithers	Smithers	Club	35	\$8.00	Yes	Yes	No
Stake Lake	Kamloops	Club	60	\$8.00	No	No	No
Sun Peaks	Kamloops	Commercial	20	Free	No	No	At adjacent ski area
Westbank	Kelowna	Club	50	\$7.00	Yes	No	No
Whistler	Whistler	Municipal	32	\$10.00	No	No	At adjacent ski area
Alberta							
Canmore	Canmore	Alberta Government	60	\$5.00	Yes	Yes	Nearby
Washington							
Metbow Valley	Mazama/Winthrop	Association	135	\$15.00	No	No	On-Site
Stevens Pass Nordic Centre	Stevens Pass	Commercial	25	\$12.00	No	No	No
Summit Nordic	Snoqualmie	Commercial	50	\$12.00	Yes	No	No
Oregon							
Mt. Bachelor	Bend	Commercial	56	\$12.00	No	No	
Mt. Hood	Portland	Commercial	15	\$10.00	No	No	
Idaho							
Sun Valley	Sun Valley	Commercial	130	\$9.00	No	No	On-Site
California							
Royal Gorge	Lake Tahoe	Commercial	90	\$25.00	No	No	On-Site

The majority of British Columbia areas are listed along with several of the major areas in the Pacific Northwest. The majority of groomed cross country ski trails in British Columbia are club operations with only six commercial for profit operators. British Columbia has 58 cross country ski clubs organized under Cross Country BC ("CCBC"). CCBC organizes and legislates all competitive cross country ski activity in the Province. CCBC has 13,000 members in the organized clubs in BC. The average cross country ski area in British Columbia has 43 kilometres of groomed trails with Silver Star/Sovereign Lakes having over 100 kilometres of trails. The large successful US ski area operations in the Methow Valley, Sun Valley and Royal Gorge all have over 100 kilometres of trails.

Cross country ski areas with higher levels of skier visits in BC are located near major metropolitan areas or offer accommodation and resort amenities nearby. Ideally successful destination cross country ski areas should have accommodation located adjacent to the trail system and have ski in, ski out accommodation.

The trail fees in British Columbia range from no charge to \$17. The average trail fee at club operations was \$7.

Table 16 Cross Country Ski Visitation by Site, Pacific Northwest

British Columbia	
108 Mile/Hills Health Ranch	11,000
Cypress Bowl	90,000
Manning Park	13,000
Mt. Washington	30,000
Silver Star/Sovereign Lake	55,000
Whistler	20,000
	<hr/> 224,000
Alberta	
Canmore	35,000
Washington	
Methow Valley	30,000
Oregon	
Mt. Bachelor	20,000
Idaho	
Sun Valley	75,000
California	
Royal Gorge	135,000

Successful operations outside of British Columbia in the Pacific Northwest include Canmore, Methow Valley, Mount Bachelor, Sun Valley and Royal Gorge. Canmore is successful due to its outstanding facilities as a legacy from the Calgary Olympics.

The Methow Valley is successful due to the extensive trail system, high quality snow and its location relative to the Seattle market. Mount Bachelor is successful due to high quality snow and location relative to the Portland market.

Sun Valley has an outstanding cross country ski trail system and combined with great snow and sun conditions it attracts many outside visitors. Sun Valley has two trail networks, one smaller system of 40 kms of trails at the Sun Valley Nordic Centre and then the larger system of 130 kms located 8 km from the town of Ketchum. The two trail systems would be comparable to the Town of Whistler trails and the proposed system in the Callaghan Valley.

Royal Gorge is the most successful destination cross country ski area in North America and offers a broad range of facilities that are considered as a benchmark in the industry. Royal Gorge attracts skier from around the world in addition to a strong local following from San Francisco and Sacramento. This is reflected in the high level of skier visits obtained at Royal Gorge.

6.4.2 Summary of Financial Projections

Detailed financial schedules regarding the post-Games operation of the WOP are to be filed in a separate submission for reasons of financial confidentiality. These schedules include:

- Projected Balance Sheets
- Statement of Projected Changes in Net Assets
- Statement of Projected Cash Flows
- Statement of Projected Operations
- Projected Use and Visitation
- Projected Transaction Rates
- Projected Revenues
- Add-on Option Schedules

The assumptions upon which the financial projections are based are outlined in the notes to the financial statements. Under these assumptions, WOP will be a non-taxable, not-for-profit entity. WOP revenue projections reflect the Projected Use and Visitation assumptions outlined in this plan. These use assumptions show the anticipated split between sport and recreational use of the facility.

6.5 Economic Benefits – Construction and Operations

The WOP will create employment, employment income and/or revenue impacts for construction workers, operations workers, and suppliers of construction materials. New visitors will create demand for tourism and related services that, in turn, will generate indirect impacts for various local and regional businesses. Post-Games visitor projections indicate that the WOP could generate up to \$31 million annually in visitor/user spending. The business community in the

Sea to Sky region stands to be the principle beneficiary of these employment and spending impacts.

The construction and deconstruction (i.e., removal of Olympic overlay) of the WOP as proposed in the original project concept is expected to provide an estimated 519 person-years (PYs) of construction and professional services employment. Construction began in 2005 and was substantially complete in 2007. Most on-site construction employment was seasonal as construction activity will largely occur when there is no snow cover. The indirect/induced employment ratio for the Squamish area construction sector is 1.38. Applying this ratio to the projected direct, construction/deconstruction employment figure of 519 indicates that the development of the WOP could generate up to 198 indirect and induced construction and deconstruction jobs. These indirect and induced jobs would be generated through the purchase of supplies/equipment for the project and through the re-spending of employment wages.

While WOP will be used for test events prior to the 2010 Games, normal operations will not begin until after the Games. It is expected that the post-Games operation of the WOP will provide a mix of full-time, year-round employment (e.g., operations manager, administrative staff, accounting staff) and seasonal employment (e.g., maintenance workers, activity supervisors). Seasonal employment estimates generally reflect a 136-day winter season and a 129-day summer season. Shoulder season activity at the site is expected to be modest. Based on an indirect/induced employment ratio of 1.13 for the Squamish area tourism sector, the operation of the WOP is expected to create up to three indirect and induced operations jobs annually (not including the impact of concession employment).

Based on these employment projections, it is estimated that the WOP could provide up to \$24 million in construction and professional services employment income over the construction period. In the post-Games operational period, the WOP is projected to generate up to \$550,000 in annual operations employment income -- not including benefits which are estimated at between 12% and 25% of income and bring total salary costs to almost \$641,000 annually (not including any concession employment).

Additionally, the construction of the WOP is expected to generate almost \$5.0 million in income tax revenue over the construction period (i.e., total construction income of \$24.0 million x 20.7% tax rate) while operation of the WOP will generate an estimated \$114,000 annually in income tax revenue (i.e., total annual operations income of \$550,000 x 20.7% tax rate).

7 Conclusion

VANOC is responsible for planning, organizing, financing and staging the XXI Olympic Winter Games and the X Paralympic Games in 2010. WOP is a key component of VANOC's venue development program and will host ski jumping, biathlon, cross country and nordic combined events. Marshalled by a provincial Environmental Assessment process, its facilities and associated infrastructure were tailor made to not only meet rigorous IOC and FIS standards, but also accommodate the recreating public in the post-Games context. Construction of WOP is currently underway and will be substantially complete in the fall of 2007. As WOP is located on Crown land, improvements underway are enabled by a licence of occupation granted by the Province.

As construction draws to a close and the venue is commissioned, new tenure arrangements are required for VANOC's operational utilization. This use involves:

- hosting regional, national and international test events
- commercial recreational skiing and snowshoeing
- the installation of temporary Olympic overlay
- the site's functioning as a key venue during Olympic and Paralympic Games.
- post-Games site reclamation, remediation and handover to the Legacy Society

It is hoped the Province will provide the appropriate tenures to VANOC so as to achieve these operations objectives. Specifically, VANOC seeks a 30 year licence of occupation with associated designation of "Controlled Recreation Area" in accordance with the Land Use Policy "All Season Resort" under the *Land Act* (Ch. 245 R.S.B.C., 1996). This land tenure would be transferred to the Whistler Legacy Society (WLS) for continued operation of WOP after the Games are completed.

The WLS will assume control over WOP's assets when VANOC's decommissioning activities are complete. The WLS will operate WOP as a sport training and recreation facility for both high performance athletes and recreational enthusiasts. It can be anticipated that the WLS will seek longer term land use authorizations to enable Legacy operation. It is acknowledged that WOP's Legacy business plans require finalization and more robust analyses of financial projections are necessary. Nevertheless, initial research indicates the long-term business potential of WOP as a recreation and sport development site is significant.

8 Referenced and Supporting Documents

Cascade Environmental Resource Group Ltd. 2007. *Whistler Olympic Park: Callaghan Valley Callaghan Recreation Access Impact Assessment*. Prepared for Vancouver Organizing Committee 2010 Olympic and Paralympic Winter Games (VANOC), Vancouver, BC.

Creekside Resources. 2002a. *Lil'wat Traditional Use of the Callaghan Watershed*.

Creekside Resources. April 2002b. *Archaeological Impact Assessment of the Proposed Callaghan Olympic Nordic Sports Centre Site*.

EBA Engineering Consultants Ltd. July 2004. *Whistler Olympic Park Project Cumulative Effects Assessment*.

EBA Engineering Consultants Ltd. 2004. *Whistler Olympic Park Project Assessment of Alternative Means of Carrying out the Project, Effects of Accidents and Malfunctions and Effects of the Environment on the Project*.

ENKON Environmental. January 2003. *Preliminary Environmental Assessment, Proposed Whistler Olympic Park Callaghan Valley*.

ENKON Environmental Limited. June 2004a. *Phase II Environmental Assessment Whistler Nordic Centre, Callaghan Valley*.

ENKON Environmental. 2004b. *Application for an Environmental Assessment Certificate – Whistler Olympic Park Volume 1*.

ENKON Environmental. 2004c. *Application for an Environmental Assessment Certificate – Whistler Olympic Park Volume 2*.

ENKON Environmental. 2004d. "Whistler Olympic Park Environmental Management Program" in *Application for an Environmental Assessment Certificate – Whistler Olympic Park Volume 1*.

ENKON Environmental. 2007. *Whistler Olympic Park Recreational Trails, Callaghan Valley, BC - Environmental Impact Assessment*

ENKON Environmental Limited. 2007. *Whistler Olympic Park Recreational Trails, Callaghan Valley, BC: Project Application Amendment to Environmental Assessment Certificate TD05-01*. Prepared for the Environmental Assessment Office on behalf of Vancouver Organizing Committee (VANOC) for the 2010 Olympic and Paralympic Winter Games, Vancouver, BC.

- ENKON Environmental Limited. 2007. *Whistler Olympic Park Recreational Trails, Callaghan Valley, BC: Project Application Amendment to Environmental Assessment Certificate TD05-01*. Prepared for the Environmental Assessment Office on behalf of Vancouver Organizing Committee (VANOC) for the 2010 Olympic and Paralympic Winter Games, Vancouver, BC.
- Golder Associates Ltd. January 2004. *Phase II Geotechnical Study Whistler Olympic Park Callaghan Valley, Whistler, BC*.
- Grant Thornton LLP July 2004. *Whistler Olympic Park Project Socio-Economic Assessment*.
- Kerr Wood Leidel Consulting Engineering. 2004. *Whistler Olympic Park Venue – Phase 2 Hydrological Update*. Report prepared for VANOC
- Northwest Hydraulics Consultants. 2005. *Review of Hydrology and Runoff Estimates for Whistler Olympic Park*.
- Northwest Hydraulics Consultants. 2005. *NCV Site Inspection Hydrotechnical and Geomorphology*.
- Northwest Hydraulics Consultants. 2005. *Whistler Olympic Park NCV Surface Water Supply Low Flow Analysis*.
- Sandwell Engineering. 2006. *WOP Final 100% Design Submission Volumes 1-3*.
- Stantec Consulting Inc. 2007. *Whistler Olympic Park Pre-Design Report for the Water and Wastewater Treatment Plants*.
- Squamish Nation. 2001. *Xay Temíxw Land Use Plan for the Forests and Wilderness of the Squamish Nation Traditional Territory*. Prepared by the Land and Resources Committee. Online at <http://www.squamish.net/PDF/archives/land/XayFirstDraft.pdf>. Accessed April 11, 2007.
- Yumks and Reimer. May 2002. *Squamish Traditional Use of Payakentsut or the Callaghan Creek Drainage Final Report*.
- Westland Resource Group, Bouchard & Kennedy Research Consultants, First Heritage Consulting and Ratcliff and Company. 2004. *Squamish Nation Aboriginal Interests and Use Study*. Prepared by the Squamish Nation for The Vancouver Organizing Committee for the 2010 Olympic and Paralympic Games.

9 Appendices

Appendix A – VANOC Letters Patent

Appendix B – WLS Certificate of Incorporation

Addendum to WSL Management Plan

Revised July 3rd , 2012

Public Recreation Access:

The lease agreement that defines Whistler Olympic Park (WOP) and recreations trail system operating area provides for quiet enjoyment and management of the lands under lease. The lease document (Lease No. 241256) makes WOP responsible for managing recreation. During the development of the recreation trail system the former Callaghan FSR Branch #4 (Madeley Lake FSR) was de-commissioned and incorporated into the main lease lands and recreation trail system. Managing use of the former FSR falls to, and is guided by the policies of, Whistler Sport Legacies and the Whistler Olympic Park operation. This is a change to the public use and access to Madeley Lake area and WOP will undertake to communicate the change and the need for the change in managing the public access.

Summer Public Access:

Public "Motorised and non-motorized" access and continued use of the Madeley Road within the lease area from snow out to snow in (summer access) will now be managed by WOP who will continue to provide access heading north and south on the Madeley Road to lands / trails beyond namely the Madeley and Rainbow trail systems. (This will ensure as per Section 56 / that all reasonable public access will be maintained)

Summer access through this area could change and is subject to WOP management and public safety for issues such as but not limited to the following: wild fire control and risk management, quarry operations, WOP authorized events, recreation programming, and/or maintenance requirements, parking fees, and emergency response needs.

WOP is continuing to work with the RMOW and the Whistler trail committee regarding summer access to the sub-alpine and alpine on Mt. Sprott and re-activating the Flank trail within the vision of WOP operations and programming to maintain accessibility to sub-alpine and alpine on Mt. Sprott where this access is appropriate and in keeping with WOP management needs and responsibilities.

WSL Winter Public Access:

Public access and the use of The Madeley Road within the lease area will return it to a cross country ski trail as part of the recreational legacy trail system from snow in thru snow out (approx October 14th through June 14th) each year (or as long as there is snow cover on the road / trail) and will be accessed thru the main gate.

During this winter period all users have to pass through the main gate to access the trail system or trails beyond, and be in possession of a current seasonal or daily cross country/back country or snow-shoe trail pass.

Winter backcountry access, through WOP, to the Madeley Rainbow Trail, Beverly Creek Trail and Hanging Lake Trail heads will be through the main gate where a daily access charge will be in effect. In all and any emergency situation's other organizations such as Whistler Search & Rescue, RCMP etc will be given permission to access the WOP trails and lands beyond.

Winter vehicular access to Madeley Road/Lake through the lease area will be restricted to WOP snow grooming equipment and 4 stroke snowmobiles required for ski patrol and staff to carry out their daily tasks, avalanche monitoring etc required in operating the recreation legacy trail systems.

Whistler Olympic Park and Whistler Sport Legacies will strive to maintain a good working relationship with the general public, neighbours, the clubs, the FMCOBC and associations as well as other tenure holders in allowing access to the leased lands, the recreation trail system and lands beyond, in keeping with WOP and WSL management and operation needs, public safety, WOP sport and recreation programming and the WSL land tenure obligations.