

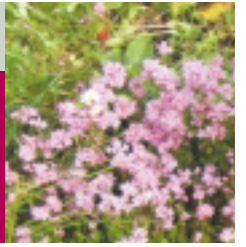
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Why protect Garry oak areas?



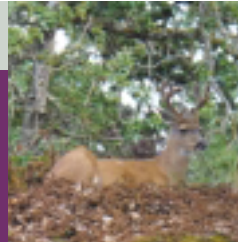
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Benefits of protecting Garry oak areas during land development



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Success stories: benefits of protecting Garry oak areas during land development



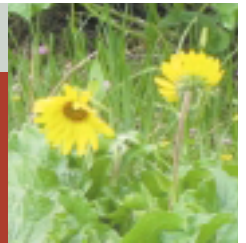
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Ways that local governments can protect Garry oak areas during land development



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Ways that developers can protect Garry oak areas during land development



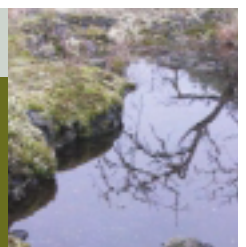
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1

Why protect Garry oak areas?



Garry oak areas are the richest land-based ecosystems in southwest British Columbia, providing habitat for more than 100 species of birds, 7 amphibian species, 33 mammal species, more than 800 invertebrate species, and about 700 plant species.



ENDANGERED ECOSYSTEMS, ENDANGERED SPECIES

Garry oak areas are some of Canada's most endangered ecosystems. Once common in coastal areas of southwest British Columbia, less than 5% of these ecosystems remain in a near-natural condition.

Land development, invasion by exotic species, fire suppression,¹ trampling by people and their pets, and poor management practices all contribute to the loss of Garry oak areas. More of the remaining areas are likely to be lost in the next decade.

As the ecosystems disappear, so do the species they support. There are more than 100 species at risk in Garry oak areas —species that are identified by the federal or provincial governments as 'at risk' of becoming extinct.²

Unfortunately, protection measures and conservation strategies often focus only on the oak trees. While protecting Garry oak trees provides important habitat for many species, it is even better to protect whole ecosystems, including the understory shrubs, ground cover and wildflowers, and to avoid small 'islands' of native trees surrounded by non-native landscaping or pavement.



Photo left and top: Chris Junck

Garry oak areas (or ecosystems) are more than just trees. They include woodlands with Garry oak, arbutus, or Douglas-fir trees, often combined with rock outcrops, natural wildflower and grassy meadows, coastal bluffs or seasonal pools.

WHY IS IT IMPORTANT TO PROTECT AND RESTORE THE REMAINING GARRY OAK AREAS?

As the song says, "you don't know what you've got 'til it's gone."

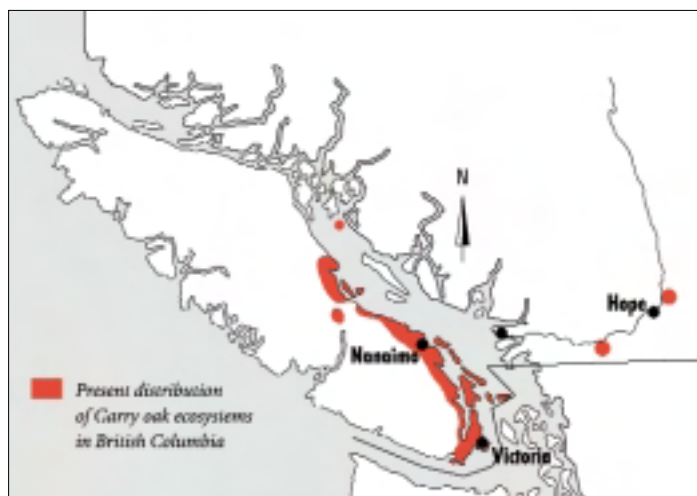
- **VISIBLE BENEFITS:** Many attractive species are found in Garry oak areas. People love to look at the wildflowers, butterflies, mosses and birds. Protected areas such as Mount Tolmie in Saanich, Mount Tzuhalem near Duncan and Ruckle Park on Salt Spring Island provide delightful views and places of serenity to walk and enjoy nature.

¹ Fire suppression allows Douglas-fir and other trees and shrubs to invade Garry oak areas, shading out and eventually replacing the trees and wildflowers.

² For a listing of species at risk, see the GOERT website www.goert.ca.

- **HIDDEN BENEFITS:** We often take for granted the valuable services that plants and animals provide, such as the insects that pollinate our gardens and orchards. Sharp-tailed snakes — a species at risk in Garry oak areas — consume the slugs that gardeners love to hate.
- **CULTURAL SIGNIFICANCE:** Garry oak areas are important to the rich and complex culture of the First Nations of this region. In the past, some First Nations deliberately burned selected woodlands and meadows to maintain open conditions and promote the growth of berries, nuts and root vegetables such as camas.
- **FIRE RESISTANCE:** The open nature of Garry oak woodlands and meadows poses a low risk for high-intensity wildfires.
- **A SOURCE OF MEDICINES:** Medical discoveries often originate from native plants and animals. Pacific yew is a source of an anti-cancer drug. Frogs are a source of painkillers and treatment for schizophrenia. First Nations have used plants found in Garry oak areas for a variety of medicinal purposes. Perhaps — as yet unknown to us — a species in Garry oak ecosystems holds the cure for Alzheimer's or AIDS.

Protecting Garry oak areas is a kind of insurance for the future — for people as well as for the plants and animals that these ecosystems support.



© Province of British Columbia

Garry oak ecosystems are found on southeast Vancouver Island, on the Gulf Islands, and in two small areas in the Lower Fraser Valley. They occur nowhere else in Canada.

These ecosystems are also found in Washington, Oregon and California (where the trees are known as Oregon white oaks). In Canada, the Garry oaks are at the northern extent of their range.

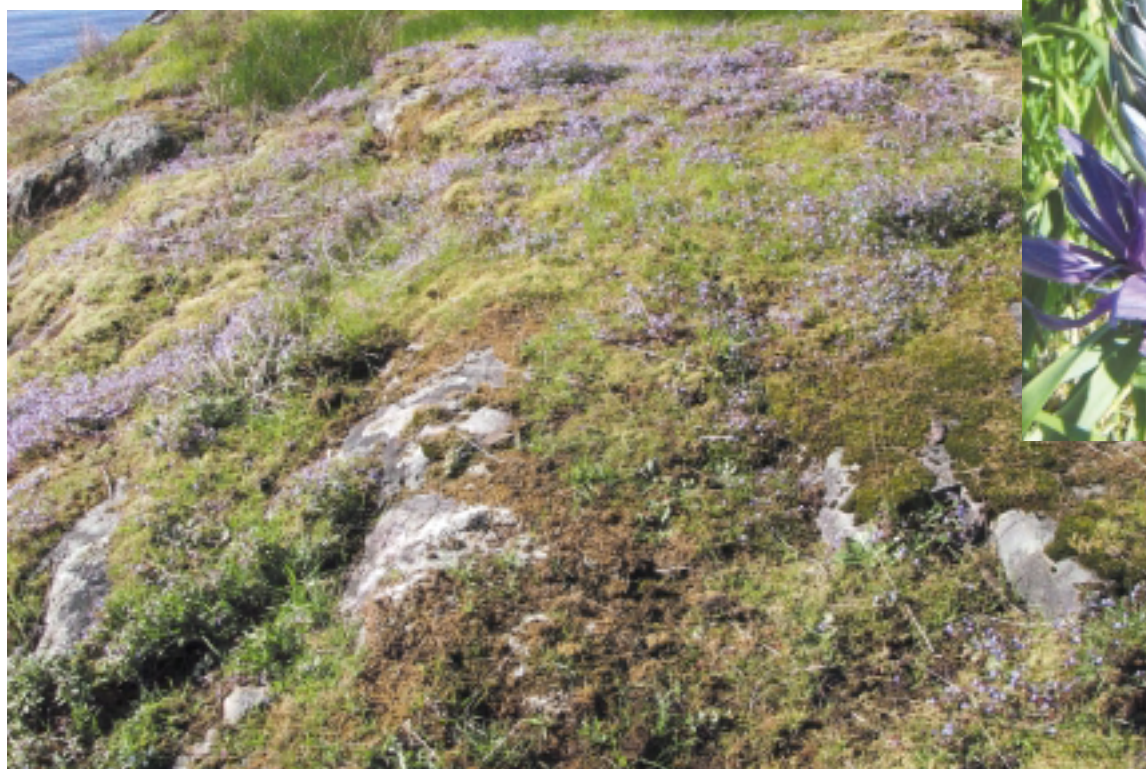


Photo: Judith Cullington

Photo: Chris Juncak



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2

Benefits of protecting Garry oak areas during land development



Protecting Garry oak areas adds to the quality of life for the entire community. Careful development and management can bring financial rewards for developers and property owners.



Photo left: Chris Junck. Photo top: Fred Hook

Garry oak areas provide scenic beauty and outdoor opportunities.

FINANCIAL AND OTHER BENEFITS FOR DEVELOPERS AND PROPERTY OWNERS

- **HIGHER PROPERTY VALUES:** Properties adjacent to greenspace and properties with trees are worth 5–20% more than properties without these assets.¹
- **FASTER SALES:** Properties near protected greenspace tend to sell more quickly. The U.S. National Association of Home Builders encourages the retention and planting of trees because it increases the marketability of new developments.
- **REDUCED COSTS:** If buildings are clustered in order to protect a natural area on part of the site, there may be lower costs for land clearing and new infrastructure. Cluster development can reduce the capital costs of subdivision development by 10–33%.
- **TAX ADVANTAGES:** Land given for conservation purposes can result in significant tax advantages for the donor.² Gifts of land or an interest in the land (such as a conservation covenant) can make the donor eligible for a tax credit, or the elimination of taxable capital gains. Corporate donors can deduct the amount of their gift directly from their taxable income, while the value of an individual's gift is converted to a non-refundable tax credit.³ Unused portions of the credit or deduction may be carried forward for up to five years, and 0% of the capital gain is taxed instead of the usual 50%.⁴ Examples of tax benefits can be seen on the Ecological Gifts website (www.cws-scf.ec.gc.ca/egp-pde/).
- **FASTER PLANNING APPROVALS:** Greenspace protection often helps to create local support for a proposed development. Earning respect and support from a community can greatly speed up the approvals process, and avoid unnecessary and costly delays.

¹ See Sheet 7 for sources of statistics used in this section.

² See information on conservation covenants and land donation on Sheet 7.

³ Each situation is unique; legal and tax advice should always be sought.

⁴ For advice on ecological gifts contact the Canadian Wildlife Service, (604) 940-4700.

- **RECOGNITION:** Some conservation organizations are promoting developments that include sound conservation initiatives. Developers who are seeking a LEED®⁵ certification for their development can earn LEED points through the protection of natural areas.

COMMUNITY BENEFITS

- **A SENSE OF COMMUNITY:** People who live near greenspace tend to live in their houses for a long time. This results in more stable neighbourhoods and a greater sense of community.
- **BETTER PHYSICAL AND MENTAL HEALTH:** Protection of greenspace can create recreational opportunities that encourage people to enjoy the outdoors. Tranquil places to 'get away from it all' provide documented mental health benefits. Research shows that hospital patients recover more quickly with a view of greenspace than if they are looking at a wall, and that office workers with a view of greenspace experience greater job satisfaction and productivity than colleagues with no such view.
- **ATTRACTIVE TO BUSINESSES:** Greenspace, environmental protection and recreation opportunities are features that help to attract new businesses to a community.
- **GOOD FOR BUSINESS:** Trees in shopping areas encourage people to shop longer, buy more and pay more for goods.
- **VALUABLE 'ECOSYSTEM SERVICES':** Healthy ecosystems provide communities with services such as stormwater management, filtering of pollutants from air and water, and storage of carbon (that would otherwise contribute to climate change). For example, for every 1,000 trees, surface runoff (stormwater) is reduced by nearly 3.8 million litres.
- **IMPROVED AIR QUALITY:** A study in Puget Sound found that the region had lost 37% of tree canopy coverage over the previous 25 years. This lost tree canopy would have removed about 13 million kg of pollutants from the atmosphere annually — a service valued at US\$95 million. A study of the Still Creek watershed in

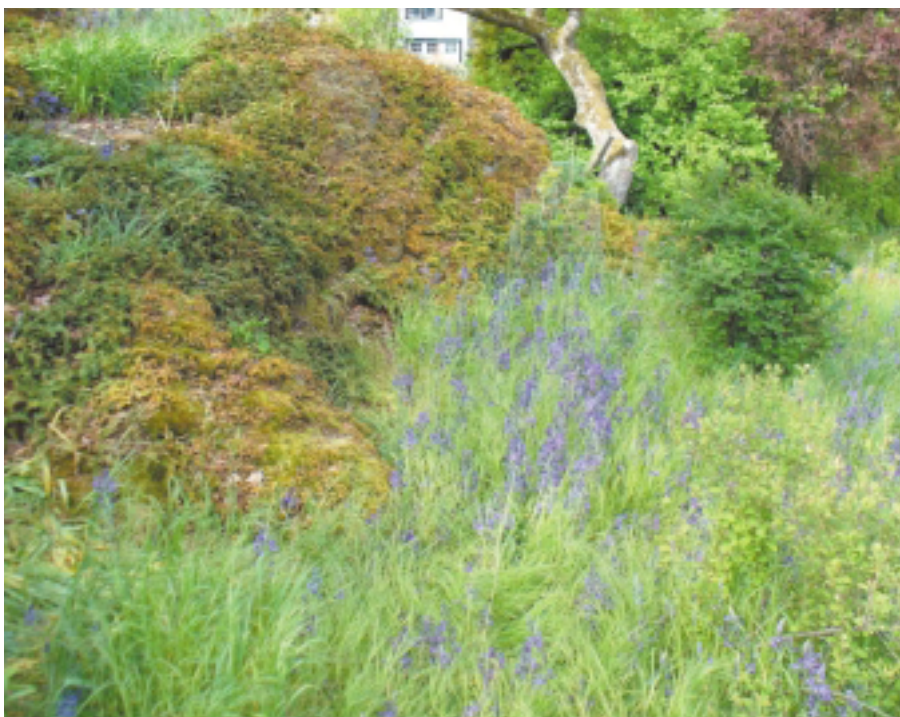


Photo: Hal Gibbard

Burnaby found that the watershed lost 0.1% of its tree cover between 1986 and 2002. This seemingly small change resulted in a loss of about \$2 million annually in air pollution management, and a loss of about 300 tonnes of carbon storage per year.

- **CLEANER WATER:** Treed areas help to filter surface runoff, reducing pollutants that would otherwise go into streams and creeks.

For more information on benefits related to the protection of natural areas, see *The HAT Manual: Protecting Natural Areas in the Capital Region*.⁶

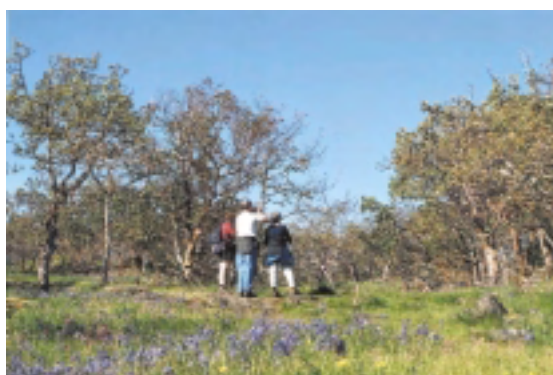


Photo: Chris Junck

⁵ Leadership in Energy and Environmental Design. For more information see www.cagbc.org.

⁶ Available from the Habitat Acquisition Trust www.hat.bc.ca.



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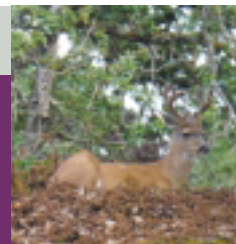


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3

Success stories: benefits of protecting Garry oak areas during land development



Good planning to
maintain healthy
Garry oak areas
during land
development benefits
everyone.



These success stories illustrate how the protection of Garry oak areas during land development has benefited the developer, the local community and the natural environment.

MATSON LANDS, ESQUIMALT

The Matson property in Esquimalt represents one of the last remnants of Garry oak ecosystems in the Victoria harbour area. Several development proposals were rejected by the community and the local council because of the threat to this ecosystem.



The Swallow's Landing development has been selling fast, and at premium prices

Photo left: Todd Carnahan Photo top: Hal Gibbard

Mandalay Developments worked in partnership with the Friends of Matson Lands, Habitat Acquisition Trust, Nature Conservancy of Canada, and the Township of Esquimalt to create a win-win scenario. Mandalay donated a one-hectare parcel, the Matson Conservation Area, to the Nature Conservancy of Canada (NCC). NCC developed a management plan, conducted a baseline inventory, and placed a conservation covenant on the property before turning it over to the Habitat Acquisition Trust as a demonstration site for urban ecosystem conservation. At the same time, the Township of Esquimalt modified the zoning on the upper portion of the development site, allowing a 102 unit, multi-storey development with stunning harbour views.

Developer David Price is happy. Not only was he able to get the project approved with support from the community, the Swallow's Landing development has been selling fast, and at premium prices.

Mandalay built a public pathway from the development to the Westsong Walkway (a public trail along the harbour front). One innovative feature is that the path is on a raised metal grid that allows water and light to penetrate. This means that wildflowers can grow beneath the trail. Demonstration nativescape gardens show the visiting public just how beautiful a native garden can be.

AJ FORSYTH STEEL DISTRIBUTION CENTRE, NANAIMO

AJ Forsyth, a metal cutter and supplier, purchased industrial land in Nanaimo that included a former storage yard and a stand of Garry oak trees with a reasonably intact understorey. The City of Nanaimo required the developer to come up with a plan to protect the trees and to meet the City's landscape and screening requirements for the building.



Photo: Pat Harrison

An eye-catching feature.

Initial site plans would have resulted in some loss of the Garry oak area due to layout and grading issues. Landscape architect Pat Harrison persuaded the company to adjust their site plans in a way that allowed them to retain the Garry oak area, improve vehicle access (especially for large trucks) and to save money on blasting and fill costs.

The project also resulted in habitat restoration initiatives. Invasive plants such as blackberry and daphne-laurel were removed, allowing native rose and oceanspray to re-establish. Landscaping has incorporated plants native to this type of dry Garry oak habitat as much as possible, and more than 30 Garry oak trees were planted on the site. A manual describing post-construction care and management of the landscape was also prepared to help the company manage the existing and restored Garry oak areas over the long term.

Another eye-catching feature of this development is a large work of art featuring a Garry oak tree made from cut steel. The artwork — created by Harrison and cut by AJ Forsyth — has served as a creative feature on the side of an otherwise blank corrugated wall, as well as an advertisement for the company's product that has led to many new sales.

AJ Forsyth has been delighted with the resulting 'look' of the site, which has won design awards from the City.

LAKESIDE VILLAGE, VIEW ROYAL

Unity Developments purchased a 10 hectare development site next to the Trans-Canada Highway in the Town of View Royal. Part of the land was in use as a landscape nursery, part was undeveloped second-growth Douglas-fir forest — and sitting in the middle was a one-hectare remnant of Garry oak woodland.

The challenge was to find a way to allow the development to proceed, while protecting both the Douglas-fir forest and the Garry oak area.

Unity Developments worked with the Town of View Royal to create a plan that included 23 single homes and 149 condominiums, as well as a commercial area. Moving to a condominium-style development allowed the developer to retain the number of units on site, while gifting both the Douglas-fir forest (Nursery Hill Park) and Garry oak woodland (Meadow Park) to the Town as a municipal park. Almost 60% of the site is to be protected as park land.

The developer worked with a biologist and landscape architect to maintain the natural site hydrology, ensuring that stormwater runoff does not increase the surface and ground water flowing through this naturally dry site. The consultants designed hard-surface trails through the parks to keep people off sensitive areas, and removed invasive species (especially daphne-laurel) in the Garry oak woodland. The parks will be managed by the municipality, and a management plan has been prepared to provide information on the best ways to protect the ecosystem values over the long term.

The "rare Garry oak preserve" is seen as an important marketing feature for this new development.

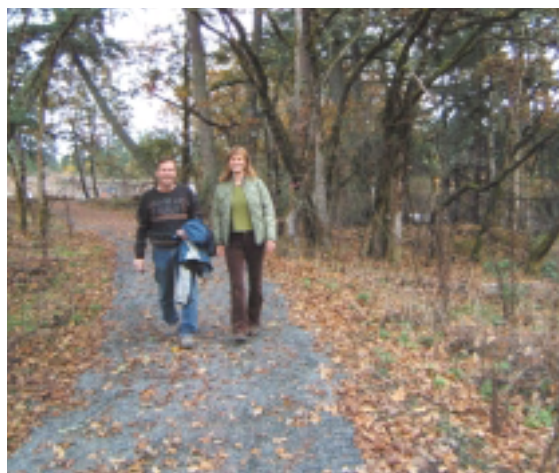


Photo: Judith Callington



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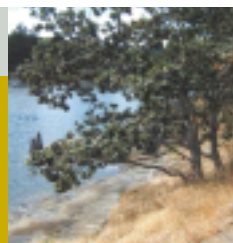


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Ways that local governments can protect Garry oak areas during land development



Contact the
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Recovery Team
(GOERT) if you would
like a meeting to
discuss protection of
Garry oak areas in
your community.



Municipalities and Regional Districts have many powers to protect Garry oak areas and the species they support during land development.

KNOW WHAT YOU HAVE

Identify and map Garry oak areas

- Do your council, board members and staff know where the Garry oak areas are in your community? Remember that rock outcrops, natural meadows and coastal bluffs may be Garry oak areas too. The Garry Oak Ecosystems Recovery Team can help you to identify significant ecosystems in your area. Local naturalist groups may also help to identify locally important Garry oak areas.
- Ensure that developers in your community know the locations of these endangered ecosystems.
- Identify Garry oak areas in the Official Community Plan (OCP) and other planning documents such as local area plans, greenways plans and park plans. On private lands, these ecosystems can be identified in the OCP as development permit areas (DPAs) with guidelines controlling how development can occur. On public lands, these areas can be designated and managed as natural parks.

PROVIDE FOR PROTECTION

Check your bylaws

- Make sure that your bylaws provide your government with the authority to protect Garry oak areas. The Garry Oak Ecosystems Recovery Team (GOERT) can help to provide appropriate wording.
- Where Garry oak ecosystems are identified as development permit areas, ensure that the DPA guidelines are worded to protect these ecosystems.
- Ensure that your tree protection bylaws will protect Garry oaks and other trees. Remember that Garry oaks may take 20 or more years to reach a significant size, so bylaws should protect small Garry oak trees as well as larger, older ones. Ideally, tree protection bylaws should protect the whole ecosystem and not just the trees.
- Ensure that your soil protection bylaw will conserve existing soil ecosystems, including those in Garry oak areas.
- Make sure that these bylaws have enforcement measures in place and significant penalties for non-compliance.

Provide incentives for conservation on private land

- Consider offering property tax exemptions for landowners who protect Garry oak areas with a conservation covenant, as the Islands Trust has done with the Natural Areas Protection Tax Exemption Program.¹
- Help landowners who already have covenants to seek a property tax exemption through the B.C. Assessment Authority.

Consider acquiring the land

- Use park land dedication provisions to acquire Garry oak areas during subdivision,

¹ For information see www.islandstrust.bc.ca

and ensure that the park is managed for ecosystem protection.

- Work with land trusts or community groups to purchase, or place conservation covenants on, Garry oak areas. Conservation covenants should be held by at least three parties — the landowner, the local government and a conservation organization — to ensure their long-term success. Covenants should also be regularly monitored. See Sheet 6 for a list of local land trust organizations that can provide additional information.

WORK WITH DEVELOPERS TO PROTECT GARRY OAK AREAS

Gather and share information

- If there are (or may be) Garry oak areas on the development site, require that the developer hire a professional to provide a detailed site inventory that identifies ecosystem values, including any species at risk on or near the proposed development site. For more information see the Ministry of Environment's *Develop with Care* guidelines and *Terms of Reference for Bio-inventory and Site Evaluation*.² For a list of qualified professionals, see the GOERT website.
- Make sure that the developer is aware of the Canada *Species at Risk Act* if there are federally-listed species at risk, as well as any Recovery Plans for these species.³ Encourage developers to contact GOERT for more information.

Encourage protection during land development

- Provide developers with information on the financial incentives for ecological gifts (see Sheet 2).
- Find ways to make protection an attractive option, for example by fast-tracking approvals of development proposals that commit to the protection of Garry oak areas.
- Consider some form of public recognition such as a media release or awards night for landowners and developers who protect Garry oak areas on their property.

Encourage development alternatives

- Encourage clustering in a less sensitive part of the development site in exchange for the protection of Garry oak areas. Long-term protection can be provided using tools such as a conservation covenant or park land dedication.

² Available from www.env.gov.bc.ca/wld/BMP/bmpintro.html

³ For information on the *Species at Risk Act* see www.sararegistry.gc.ca

⁴ For more information see "Conservation design for subdivisions: a practical guide to creating open space networks" available from www.greenerprospects.com/products.html

⁵ For a list of qualified arborists see www.goert.ca

- Encourage conservation subdivision design, featuring small lots with significant amounts (more than 50%) of natural areas and open space.⁴ Density bonuses may help to encourage this type of development.
- Use alternative design standards such as narrower roads to reduce the size of the construction footprint, so that more land can be set aside for conservation purposes.
- When development variances are requested, negotiate for the protection of any Garry oak areas.

Plan for protection during and after construction

- Ensure that the building envelope for new developments does not encroach on Garry oak trees or their root systems (which may extend well beyond the crown of the tree). The tree protection area should be defined by a qualified arborist.⁵ Require that buffers of natural vegetation be retained around Garry oak areas, to protect the understorey as well as trees both during and after construction.
- Ensure subdivision bylaws specify requirements for erosion control and tree protection measures during the construction phase.
- Ensure that course of construction documents protect Garry oak areas during development, for example by ensuring that wash water is not allowed to flow into these sensitive areas, and that temporary fencing prevents damage to trees and their roots from heavy equipment.
- Consider the impacts of development on the hydrology of Garry oak areas. Changes to surface or subsurface water flows can affect the whole ecosystem.
- Encourage the use of site-appropriate native plants in landscaping and prohibit the use of invasive plants.
- Encourage the removal of invasive plants during construction (see Sheet 7 for sources of information).
- Encourage developers to prepare a management plan for the long-term protection of the Garry oak areas, and to provide future homeowners with information on the unique values of this ecosystem and ways they can help to maintain these values. GOERT has materials that may be helpful.

For further details please talk to the Garry Oak Ecosystems Recovery Team or see the Ministry of Environment's *Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia*.



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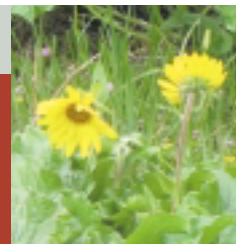
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Ways that developers can protect Garry oak areas during land development



Contact the
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like a meeting to
discuss protection of
Garry oak areas on
or near your
proposed
developments.



Garry oak areas are unique features that can be an asset for your development.

Protecting Garry oak areas can add to a development's triple-bottom line, by adding to sales value and community amenities while protecting one of Canada's most endangered ecosystems.

CONSIDER DEVELOPMENT ALTERNATIVES

Consider selling or donating all or part of the Garry oak area

- Garry oak areas are environmentally sensitive. If these lands are donated to a local government or land trust as an ecogift, there may be significant income tax advantages. Your local government may offer a property tax incentive if a covenant is in place. Contact GOERT for more details.
- These areas may be given to the local government as part of the park land dedication during subdivision.
- Local land trusts or community groups may be interested in purchasing the Garry oak area if the price is favourable. If the land is sold for less than market value, tax advantages may apply.



Photo left: Chris Junck. Photo top: Fred Hook

Consider clustering

- Look at ways to cluster development in less sensitive parts of the development site in exchange for setting aside Garry oak areas. Clustering reduces developments costs as there are fewer trees to clear, less land to grade, and less road, water, hydro, and sewer infrastructure needed to service the development. Some local governments will allow an increase in density in exchange for natural area protection.
- Consider conservation subdivision design. Smaller lots with significant amounts (more than 50%) of protected open space targets the growing consumer market that is seeking homes in natural settings with less property to maintain.¹
- Use alternative development standards such as narrower roads to help reduce the development footprint, leaving space for the protection of natural areas on site.
- Design the lot layout to avoid roads, trails and utility corridors that bisect natural areas. Keep large adjoining blocks of natural areas whenever possible.

¹ For more information see "Conservation design for subdivisions: a practical guide to creating open space networks" available from www.greenerprospects.com/products.html

DESIGN FOR SUCCESS

Get detailed information

- If there are (or you think there may be) Garry oak areas or species at risk on or near the development site, contact the Garry Oak Ecosystems Recovery Team for more information. If a site includes federally-listed species at risk, be aware that harming them may have implications under the Canada *Species at Risk Act*. In some cases there are Recovery Strategies or Action Plans for these species which will need to be considered.² GOERT can help you find funding for species at risk protection and can provide additional information.
- Have a professional ecologist prepare a detailed site inventory that identifies Garry oak areas and any species at risk on or near the development site. Be aware that some species are only visible at certain times of the year, and that some can only be identified by specialists.³ For more information see the Ministry of Environment's *Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia* and *Terms of Reference for Bio-inventory and Site Evaluation*.⁴
- Review the Ministry of Environment's *Develop with Care* guidelines for developments near sensitive areas.

Design to protect the trees and other vegetation

- Retain existing Garry oak trees and natural wildflower meadows. Remember that even small Garry oak trees may be quite old.
- Retain and create wildlife corridors between Garry oak areas and other natural habitats.
- Retain natural ground cover and shrubs in addition to Garry oak trees. Many species that depend on Garry oak areas need fallen leaves and native plants to survive. Fallen trees also provide habitat for a variety of plants and animals.
- Provide guidelines for landscaping and maintenance that will take place post-construction. Typical gardening practices such as mowing, fertilizing and watering can harm oak seedlings as well as other native plants and animals that are adapted to dry conditions and poor soils.
- Look for opportunities to restore Garry oak habitats. Contact GOERT for ideas and information. You may even be able to create Garry oak habitat on your green roof!

DEVELOP CAREFULLY

Protect during and after construction

- Use a qualified arborist⁵ with Garry oak expertise to define tree protection areas, and place temporary fencing around Garry oak trees and ground cover plants to avoid accidental damage during construction. Ensure that construction crews do not dump fill in tree root zones, as it may lead to death of the tree. Remember that the tree's root zone is at least as large as the crown area of the tree.
- Retain buffers of natural landscaping around Garry oak areas. This will help to protect these sensitive ecosystems during and after construction.
- Ensure that course of construction documents specify requirements to protect Garry oak areas during development, for example by ensuring that surface and sub-surface water flows are unchanged and that concrete wash is not spilled into these areas. Make sure the sub-trades are aware of and follow these documents too.
- Use site-appropriate native plants in landscaping. Avoid invasive plant species such as English ivy or butterfly bush (*Buddleia*) that can alter and harm neighbouring Garry oak areas.
- Minimize the area cleared during construction. Bare soils allow invasive plants to colonize. Once established, invasive plants may be hard to remove.
- Remove invasive, non-native plants such as English ivy, Scotch broom, daphne, English holly and gorse. Note that removal of invasive plants requires gloves and skin protection as some plants, especially daphne, contain oils that can harm the skin, eyes and lungs. The GOERT manual *Invasive Species in Garry Oak and Associated Ecosystems in British Columbia*⁶ contains information on ways to remove some common invasive plants.
- Provide new homeowners with GOERT's information about native plants to use and invasive species to avoid when landscaping, such as the *Garry Oak Gardener's Handbook*.

For more details please talk to the Garry Oak Ecosystems Recovery Team or see the Ministry of Environment's *Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia*.

2 For information on Recovery Planning see www.sararegistry.gc.ca/plans/default_e.cfm

3 For a list of experts see the GOERT website www.goert.ca

4 Available from www.env.gov.bc.ca/wld/BMP/bmpintro.html

5 For a list of arborists with Garry oak expertise, see www.goert.ca

6 Available from www.goert.ca



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Useful Contacts



There are many organizations that can provide you with information on Garry oak areas in your region.

For information about qualified arborists, restoration ecologists, landscape

architects, native plant sources and other resources, please see www.goert.ca or call

GOERT at
(250) 383-3293.



GARRY OAK ORGANIZATIONS

Garry Oak Ecosystems Recovery Team
301-1205 Broad St.
Victoria BC V8W 2A4
www.goert.ca
Phone: (250) 383-3293
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www.garryoak.bc.ca
Phone: (250) 475-2024
E-mail: garry1oak@netscape.net

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c/o Environmental Services
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E-mail: macdonac@saanich.ca

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Salt Spring Island, BC V8K 2V3
www.landtrustalliance.bc.ca
Phone: (250) 538-0112
E-mail: info@landtrustalliance.bc.ca

Comox Valley Land Trust
PO Box 3462
Courtenay, BC V9N 5N5
www.cvlandtrust.org
Phone: (250) 703-2871
E-mail: info@cvlandtrust.org

Cowichan Community Land Trust Society
6-55 Station St.
Duncan, BC V9L 1M2
www.island.net/~cclt
Phone: (250) 746-0227
E-mail: cclt@island.net

Denman Conservancy Association
Box 60
Denman Island, BC V0R 1T0
www.denmanis.bc.ca/conserve
E-mail: lpope1@telus.net

Fraser Valley Conservancy
PO Box 2026, Clearbrook Station
Abbotsford, BC V2T 3T8
www.abbotsfordlandtrust.ca
Phone: (604) 864-5530
E-mail: lisa@abbotsfordlandtrust.ca



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Galiano Conservancy Association
RR1-Sturdies Bay Rd.
Galiano Island, BC V0N 1P0
www.galianoconservancy.ca
Phone: (250) 539-2424
E-mail: galiano_conservancy@gulfislands.com

Habitat Acquisition Trust
316-620 View St., PO Box 8552
Victoria, BC V8W 3S2
www.hat.bc.ca
Phone: (250) 995-2428
E-mail: hatmail@hat.bc.ca

Conservancy Hornby Island
Box 55
Hornby Island, BC V0R 1Z0
Phone: (250) 335-2603

Islands Trust Fund

Suite 200–1627 Fort St.
Victoria, BC V8R 1H8
www.islandstrustfund.bc.ca
Phone: (250) 405-5186
E-mail: itfmail@islandstrust.bc.ca

Mayne Island Conservancy

S14–C11 Bluff Way
Mayne Island, BC V0N 2J0
Phone: (250) 539-3634

Nanaimo Area Land Trust

140 Wallace St.
Nanaimo, BC V9R 5B1
www.nalt.bc.ca
Phone: (250) 714-1990
E-mail: admin@nalt.bc.ca

Pender Islands Conservancy Association

PO Box 52
Pender Island, BC V0N 2M0
Phone: (250) 629-6562
E-mail: pica@gulfislands.com

Salt Spring Island Conservancy

PO Box 722
Ganges, BC V8K 2W3
www.saltspring.gulfislands.com/conservancy/
Phone: (250) 538-0318
E-mail: ssiconservancy@saltspring.com

***Nature Conservancy of Canada —
B.C. Region***

300–1205 Broad St.
Victoria, BC V8W 2A4
www.natureconservancy.ca
Phone: (250) 479-3191 or 1-888-404-8428
E-mail: bcoffice@natureconservancy.ca

Nature Trust of British Columbia

Vancouver Island office: 2080A Labieux Rd.
Nanaimo, BC V9T 6J9
www.naturetrust.bc.ca
Phone: (250) 751-3218
E-mail: info@naturetrust.bc.ca

***TLC The Land Conservancy of
British Columbia***

2709 Shoreline Dr.
Victoria, BC V9B 1M5
www.conservancy.bc.ca
Phone: (250) 479-8053
E-mail: admin@conservancy.bc.ca

**For updates and additional information,
see www.goert.ca**



Photo: Dave Lock



Photo: Judith Cullington



Photo: Bruce Whittington



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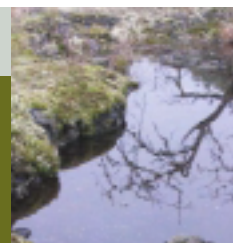
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There are many
useful written
sources of
information on
Garry oak
ecosystems.

For additional
resources see
www.goert.ca



CONSERVATION COVENANTS AND LAND DONATION

B.C. Assessment Authority
www.bcassessment.bc.ca

Canadian Wildlife Service Ecological Gifts website
www.cws-scf.ec.gc.ca/egp-pde

Hillyer, A. and J. Atkins. 2000. Greening Our
Title: A Guide to Best Practices for Conservation
Covenants. West Coast Environmental Law.
Available from www.wcel.org

Hillyer, A. and J. Atkins. 1994. Here Today, Here
Tomorrow: Legal Tools for the Voluntary
Protection of Private Land in British Columbia.
West Coast Environmental Law Research
Foundation. Available from www.wcel.org

Layard, N. 2002. Green Legacies: A Donor's Guide for B.C. Habitat Conservation
Trust Fund. Available from www.greenlegacies.ca

Land Trust Alliance of British Columbia. 2006. An Introduction to Conservation
Covenants: A Guide for Developers and Planning Departments. Available from
www.landtrustalliance.bc.ca/research.html

Land Trust Alliance of British Columbia. 2006. Property Assessments of Conservation
Lands: A Guide for Land Trusts and Conservation Land Owners. Available from
www.landtrustalliance.bc.ca/research.html



Photo left: Fred Hook Photo top: Chris Junck

TOOLS FOR CONSERVING GARRY OAK AREAS DURING LAND DEVELOPMENT

B.C. Ministry of Environment. 2006. Develop with Care: Environmental Guidelines
for Urban and Rural Land Development in British Columbia. Available from
www.env.gov.bc.ca/wld/BMP/bmpintro.html

Curran, D. 2003. Smart Bylaws Guide. West Coast Environmental Law. Available
from www.wcel.org

Garry Oak Ecosystems Recovery Team and Parks Canada. 2007. The Garry Oak
Gardener's Handbook: Your Guide to Establishing, Restoring and Caring for Garry
Oak Habitat. Available from www.goert.ca

Habitat Acquisition Trust. 2004. The HAT Manual: Protecting Natural Areas in the
Capital Region. Available from www.hat.bc.ca

Islands Trust Natural Areas Protection Tax Exemption Program. Information on
Islands Trust Fund website www.islandstrustfund.bc.ca

Lanarc Consultants Ltd. 1997. Stewardship Bylaws: A Guide for Local Governments.
Available from www.stewardshipcentre.bc.ca

Smart Growth BC. 2001. The Smart Growth Toolkit. Available from
www.smartgrowth.bc.ca

PRIVATE LAND STEWARDSHIP

Penn, B. 1996. Stewardship Options for Private Land Owners in British Columbia. B.C. Ministry of Environment, Lands and Parks. Available from www.stewardshipcentre.bc.ca

INVENTORY

B.C. Ministry of Environment. Terms of Reference for Bio-inventory and Site Evaluation. Available from www.env.gov.bc.ca/wld/BMP/bmpintro.html

Conservation Data Centre (B.C. Ministry of Environment) www.env.gov.bc.ca/cdc/

Garry Oak Ecosystems Recovery Team. Current and historical maps of Garry oak distribution. Available from www.goert.ca

Sensitive Ecosystems Inventory (Environment Canada and B.C. Ministry of Environment) for East Vancouver Island and Gulf Islands www.env.gov.bc.ca/sei/van_gulf/index.html

Community Mapping Network. There are several web-based atlases that include inventory data. For information, see www.shim.bc.ca

The Garry Oak Ecosystems Recovery Team can provide information on Garry oak sites of high conservation value.

INVASIVE SPECIES

Coastal Invasive Plant Committee website www.coastalinvasiveplants.com

Garry Oak Ecosystems Recovery Team. 2003. Invasive Species in Garry Oak and Associated Ecosystems in British Columbia. Includes blackberry (Himalayan and evergreen), daphne, eastern grey squirrel, English hawthorn, English ivy, gorse, orchard grass, Scotch broom, and other invasive plants and animals. Available from www.goert.ca.

Global Invasive Species Database www.issg.org/database
Invasive Plant Council of British Columbia www.invasiveplantcouncilbc.ca

GREEN DEVELOPMENT

Arendt, Randall. 1996. Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks. Available from www.greenerprospects.com/products.html

Arendt, Randall. 1999. Growing Greener: Putting Conservation into Local Plans and Ordinances. Available from www.greenerprospects.com/products.html

McHarg, Ian. 1992. Design with Nature. John Wiley and Sons, Inc. Available from www.wiley.com

Rocky Mountain Institute. 1998. Green development: integrating ecology and real estate. Available from www.rmi.org ('bookstore' link).

BENEFITS OF CONSERVING TREES AND NATURAL AREAS

American Forests. 1998. Regional Ecosystem Analysis Puget Sound Metropolitan Area: Calculating the Value of Nature. American Forests, Washington, D.C. July 1998. Available from www.americanforests.org/downloads/rea/AF_PugetSound.pdf

Center for Urban Forest Research. 2003. City of San Francisco, California Street Tree Resource Analysis. USDA Forest Service, Pacific Southwest Research Station, Center for Urban Forest Research, CA. Available from www.fs.fed.us/psw/programs/cufr/

Curran, D. 2001. Economic Benefits of Natural Greenspace Protection. Smart Growth BC and the POLIS Project on Ecological Governance. Available from www.smartgrowth.bc.ca

Harris, R., J. Clark, and N. Matheny. 1999. Arboriculture: Integrated Management of Lands. 3rd edition. Prentice-Hall, Inc. N.J. Available from www.fs.fed.us/psw/programs/cufr/

International Society of Arboriculture website "Trees are Good" www.treesaregood.com

Olewiler, N. 2004. The Value of Natural Capital in the Settled Areas of Canada. Ducks Unlimited and the Nature Conservancy of Canada. Available from www.ducks.ca

Quayle, M. and S. Hamilton. 1999. Corridors of Green and Gold: Impact of Riparian Suburban Greenways on Property Values. Fisheries and Oceans Canada www.dfo-mpo.gc.ca/Library/241452.pdf

Wolf, K. 2004. Trees on Main Street: Influences on Retail and Shopping Behavior. University of Washington. More information on [www.cfr.washington.edu/research.envmind/consumer.html](http://www.cfr.washington.edu/research/envmind/consumer.html)

For an updated list of resources and web links, see www.goert.ca.



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Here are some
definitions for terms
used in these
information sheets



- **BUFFER:** an area of land that surrounds and protects an ecosystem from the adverse effects of activities on, or encroachment from, adjacent developments.¹
- **CONSERVATION COVENANT:** a voluntary, written legal agreement in which a landowner promises to protect natural features on his or her land in specified ways. This agreement may cover all or just part of a property. The covenant is attached to the title of land and binds future landowners to the terms of the covenant.
- **COURSE OF CONSTRUCTION DOCUMENT:** a document defining the obligations of contractors during the building process, such as engineering and waste management requirements.
- **DEVELOPMENT PERMIT AREA (DPA):** an area defined in the Official Community Plan, in which a development permit must be obtained before development can proceed. A local government may define a DPA for the purposes of protecting the natural environment and may specify conditions that must be met before a development permit will be issued.
- **ECOGIFT:**² a gift of land or a conservation easement, covenant, or servitude on land that is certified as ecologically sensitive by the federal Minister of the Environment or the Minister's designate in accordance with the provisions of the federal *Income Tax Act*, and that otherwise meets the requirements of the Act that give rise to significant tax advantages.
- **ECOSYSTEM:** a complete system of living organisms interacting with the soil, land, water, and nutrients that make up their environment. Ecosystems are commonly described according to the major type of vegetation — for example, 'old-growth forest', 'Garry oak' or 'grassland' ecosystem.
- **GARRY OAK AND ASSOCIATED ECOSYSTEMS:** Garry oak ecosystems range from shady woodlands to open meadows with scattered trees, including mixed stands with other trees, mainly arbutus and Douglas-fir. Garry oak ecosystems may often be found near, or in combination with other ecosystems that do not contain Garry oak trees. These associated sites often share many characteristics with Garry oak ecosystems, including the types of disturbance experienced or expected to occur,



Photo left: Chris Junck Photo top: Suzanne Beauchene

¹ Many of the definitions are adapted from the B.C. Ministry of Environment's *Develop with Care* guidelines.

² From Canadian Wildlife Service Ecological Gifts website www.cws-scf.ec.gc.ca/egp-pde.

like wildfires or grazing by wildlife. Associated ecosystems are highly varied and include rock outcrops and coastal bluffs, forests with an oak component, maritime meadows and treeless grasslands, and seasonal wetlands and small pools which disappear during droughts. **In these documents, these places are referred to as Garry oak areas.**

- **GREENWAYS:** networks of linked greenspace that provide wildlife habitat and recreational opportunities.
- **HABITAT:** the place where an organism lives, and/or the conditions of that place, including the soil, vegetation, water, and food.
- **INVASIVE SPECIES:** plants, animals, and micro-organisms that colonize and take over the habitats of native species. Most invasive species are not native to the area and can become dominant because the natural controls (e.g., predators, disease) that kept their populations in check in their original environment do not occur in their new location.
- **LAND TRUST:**³ a private, non-profit organization committed to the long-term or permanent protection of natural or cultural heritage. They may protect nature through ownership of land or acquire interests in land such as a conservation covenant.
- **NATURAL CAPITAL:**⁴ natural capital consists of natural resources, environmental and ecosystem resources, and land. It is capital in the sense that these resources are assets that yield goods and services over time – goods and services that are essential to the sustained health of our environment and the economy.
- **RECOVERY PLAN:** recovery planning is a process that is undertaken to ensure the survival and recovery of species and ecosystems at risk. Recovery plans are usually prepared by a recovery team, such as the Garry Oak Ecosystems Recovery Team.
- **RESTORATION:** the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.
- **SPECIES AT RISK:** a species that has been defined as at risk of disappearing from the wild by either the federal or provincial government.
- **SPECIES AT RISK ACT (SARA):** federal legislation aimed at preventing endangered or threatened wildlife from becoming extinct or lost from the wild, and helping in the recovery of these species.

- **UNDERSTOREY:** the shrubs and ground cover plants that are found under trees.
- **WILDLIFE CORRIDOR:** a travel corridor for wildlife. They include wide, natural corridors for large mammals, to 'sky corridors' that offer a safe flight path between feeding and resting places for birds, to smaller constructed corridors (such as urban trails or culverts under roads) that provide safe passage for smaller creatures.



Photo: Katie Stewart



Photo: Kathryn Marrell

³ From Land Trust Alliance of B.C. website.

⁴ From Olewiler 2004.



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