The HAT Manual:

Protecting Natural Areas in the Capital Region

Habitat Acquisition Trust

January 2004

HAT is a non-profit, charitable (88962 6545 RR0001) society under Canadian and British Columbian law.

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Foreword

This manual was created by Habitat Acquisition Trust (HAT), a non-profit regional land trust founded in 1996. HAT's mission is to promote the preservation of the natural environment on southern Vancouver Island and the southern Gulf Islands by conserving habitats by acquisition, conservation covenants, or other legal mechanisms; and by promoting habitat stewardship, education and research.

The manual has been designed in three ring binder format to facilitate the updating of information. HAT intends to place future additions to this manual on its website (www.hat.bc.ca) for downloading. If you have comments on this first version, or suggestions for examples, please contact us at hatmail@hat.bc.ca

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1. Introduction

During the course of a three-year term of office in local government, an elected official will make approximately 4000 decisions — small and large — related to governance. Decisions range from the position taken on an issue in a telephone call with a constituent, to a comment or suggestion to staff on a project, and to the casting of a vote on a major resolution for an item such as a budget or an Official Community Plan.

The results of those decisions can change — have changed — the landscape and nature of the Capital Region (Capital Regional District — CRD). Bit by bit, we have ditched and piped our streams, paved roads, and urbanised the landscape. Each of these decisions has been made with the best intentions, but the cumulative impact has been a high environmental cost. Should we care? And if we do care, what can we do? This is what the *HAT Manual* is about.

The *HAT Manual* is a reference document, pulling together information from a wide variety of sources. Its focus is the Capital Region, but it is applicable to many other British Columbia communities.

- **Chapter 2** discusses the **state of natural areas** in the Capital Region;
- **Chapter 3** looks at the **benefits of protecting natural areas**;
- **Chapter 4** summarises the **tools available to local governments, developers, conservation organisations and landowners who want to protect natural areas;**
- Local governments play a crucial role in the protection of natural areas in this region. The **Appendix**, written by planner Kevin Key of *KeyPlan*, provides an insight into the **nature of decisions** and the **role of local government politicians**.

The manual is intended for use by people who want to protect natural areas, but may not be sure of the options open to them. This includes local government decision-makers: elected officials such as mayors and councillors, regional board directors and chairs. It includes those appointed to help with decision making – members of Advisory Planning Commissions, Environmental Advisory Committees and other volunteer roles. It includes developers who are trying to be more environmentally sensitive, while still providing homes for people to live. It includes members of conservation organisations, community groups and individuals who are trying to make a difference.

The authors hope that this manual will help people to understand the values – economic, environmental and social – of protecting natural areas. It's not just about spaces for birds or rare plants. It's about building communities that are nice places to live. It's about realising economic benefits as well as having a nice place to go for a walk. It's about the day-to-day decisions we make in our communities.

We can choose – choose to grow and develop in ways that protect natural areas in and around our communities.

It's up to all of us.

2. What's Happening to our Natural Areas?

2.1 "Natural Areas"

We have used the term "natural areas" throughout this document to apply to the remnants of relatively natural ecosystems that remain in the Capital Region. This includes the "sensitive ecosystems" that were identified by the federal/provincial Sensitive Ecosystems Inventory; "environmentally sensitive areas" identified in many municipal plans; and many small patches of wildlife habitat that can be found throughout the region. Natural areas include forests, woodlands, natural meadows, lakes, rivers, wetlands and riparian (streamside) areas, beaches, foreshores, cliffs and rocky outcrops. They have all been affected by human activities to some degree, but they still provide nice viewscapes for people, important habitats for wildlife, and a reminder of what this region once looked like. (Golf courses, cultivated lands and manicured city parks are not "natural areas," although they may contain patches of natural areas within them.)

What all natural areas have in common — unfortunately — is their increasing rarity.

2.2 A Vanishing Resource

M. O'Shaughnessy

2.2.1 Disappearing Ecosystems

An inventory of remnant natural ecosystems on the east coast of Vancouver Island and adjacent Gulf Islands found that less than 8% of this area remained in a relatively natural state (Ward et al. 1998). And a recent review found that — at least in selected areas — more than one in nine of these sensitive ecosystems has been developed or modified since the original inventory 6-8 years earlier (MWLAP 2002a).

> *"If the present rate of disturbance were to continue, all of the remaining natural sensitive ecosystems could be impacted within the next few decades." (Ibid.)*

The Sensitive Ecosystems Inventory (1993-1997) recorded the remaining sensitive ecosystems in the Capital Region:

Area (ha) of sensitive ecosystems in the Capital Sub-unit[1]

	Sensitive Ecosystems							
	CB	**HT**	**OF**	**RI**	**SV**	**WD**	**WN**	**TOTAL**
Central Saanich	9	17	18	18	28	7	7	104
Colwood	1	3	132	25	0	20	15	200
Esquimalt	4	8	4	0	0	14	0	30
Highlands	2	184	135	15	1	344	55	752
Langford	0	109	157	64	0	285	26	647
Metchosin	56	230	658	52	3	149	48	1227
North Saanich	0	1	42	9	2	16	9	79
Oak Bay	18	11	4	4	0	29	0	66
Saanich	25	54	334	19	2	199	99	755
Sidney	0	0	0	3	0	0	0	3
Victoria	6	18	3	0	0	22	1	50
View Royal	2	29	388	7	0	24	33	492
Total (incorporated)	**124**	**663**	**1874**	**215**	**35**	**1110**	**294**	**4315**
Unincorporated	188	379	3158	166	3	46	244	4185
Total	**312**	**1043**	**5032**	**382**	**38**	**1156**	**538**	**8501**

Figures have been rounded to the nearest hectare. The total area of the Capital sub-unit is 61,793 ha. This chart does not include data from the Gulf Islands.

CB – Coastal Bluff
HT – Terrestrial Herbaceous
OF – Older Forest
RI – Riparian
SV – Sparsely Vegetated
WD – Woodland
WN – Wetland

For definitions of the ecosystem types, see the Sensitive Ecosystems Inventory information.

As this table shows, in some municipalities there are only small amounts of sensitive ecosystem remaining.

Garry oak ecosystems (including Garry oak/arbutus woodlands, Garry oak/Douglas-fir forests and associated meadows) are one of the four

[1] Note that this inventory is being updated (2003), and more recent data may be available. Check the SEI website at http://srmwww.gov.bc.ca/sei/index.html

most endangered ecosystems in Canada. The Capital Region is – or was – home to a large portion of Canada's Garry oak and associated ecosystems, giving rise to many local names such as "Oak Bay" and "Royal Oak." A comparison of the presence of Garry oak ecosystems in the Victoria area in 1800 and 1997 shows that less than 5% of the original Garry oak ecosystems remain, and this mostly in isolated fragments that do not allow for genetic mixing of species from one area to another (Lea 2002).


B. Whittington

2.2.2 Disappearing Species

As the ecosystems disappear, so do the species they support.

There are 226 species on the provincial "at-risk" list in the south Vancouver Island forest district (BC Species Explorer 2002). This includes 69 animal species such as Great Blue Herons, Red-legged Frogs, Sharp-tailed Snakes, Northern Goshawks and Moss' elfin butterflies. There are also 157 vascular plant species at risk, including the phantom orchid, deltoid balsamroot, fragrant popcornflower and purple sanicle.

Other species have disappeared altogether. Plants such as the globe gilia, spurred lupine and Lobb's water-buttercup are extirpated (no longer found in this area) (CDC 2000). The Streaked Horned Lark was considered extirpated on Vancouver Island, until a single individual was seen in 2002 (Beauchesne and Cooper 2002).

The greatest cause of species decline is the loss and fragmentation of habitats, caused by urban and agricultural development, forestry, road building and recreational use of lands. In addition to loss of habitats through development, plants and animals are also placed at risk by the growing incursion of invasive, non-native species. Plants such as Scotch broom, gorse, purple loosestrife, English holly and ivy take over native vegetation, radically changing the habitats and removing the food sources for native species. Other concerns include the use and accumulation of pesticides and other chemicals on land and in water.

> *"The greatest threat to species at risk in British Columbia is habitat loss through activities such as urban development, agriculture and timber management. The number of species at risk is highest in the southern regions of the province, where a high level of biodiversity coincides with rapid human development." (MWLAP 2002b)*

A report by the North American Free Trade Association notes that North America is facing "widespread crisis" due to its shrinking biodiversity. The report notes that loss and alteration of habitat is the main threat to biodiversity (NACEC 2002).

2.2.3 Disappearing Streams

Streams have disappeared as they are culverted and ditched. There are no data for Victoria, but studies in the Lower Fraser Valley show that of the original 779 streams, 117 no longer exist, and that "Most of the remaining 662 streams are under significant stress due to landscape alterations in watersheds, riparian zone degradation, and pollution, and are classified as threatened or endangered." (Fraser River Action Plan 1997)

Changes to upland areas of the watershed can also affect the stream. By the time 10% of the watershed is covered with impervious surfaces (such as pavement), there are probably already negative impacts to stream habitats (MWLAP and Environment Canada 2002). A watershed with more than 30% impervious surfaces will show signs of significant damage to fish and stream habitat. Three of Greater Victoria's watersheds (Cecilia, Mount Douglas and Bowker) already have more than 30% total impervious area, and another four (Colwood, Millstream, Colquitz and Hobbs) have more than 10% total impervious area (CRD Roundtable on the Environment 2003b).


D. Greer

2.2.4 More Work to be Done

There is some good news. Twenty percent of the CRD coastline is in protected parkland (CRD Roundtable on the Environment 2003a). There have been a number of additions to the protected areas in this region in recent years, including additions to regional parks and national park acquisitions in the southern Gulf Islands. Conservation organisations such as the Habitat Acquisition Trust, The Land Conservancy, the Islands Trust Fund and the Nature Conservancy of Canada have been helping landowners to protect natural areas on their properties through conservation covenants and other measures. Significant progress has been made on the completion of the Sea to Sea Greenbelt. Volunteer groups such as Streamkeepers and Wetlandkeepers are working on restoration projects. There are many community groups and partnerships working to protect natural areas throughout the Capital Region.

> *"The Esquimalt Lagoon Stewardship Initiative is a coalition of community and environmental groups, government agencies and First Nations working together to protect, enhance and restore the health of Esquimalt Lagoon." (Esquimalt Lagoon Stewardship Initiative 2002)*

However, much remains to be done. Research by the CRD Roundtable on the Environment (2003a) shows that only 34% of Sensitive Ecosystems Inventory (SEI) sites in the Capital Regional District are in some form of protected area (federal, provincial, regional or municipal park or ecological reserve). Many other smaller sites, not identified by the SEI, also merit protection as valuable components of the Capital Region's greenspace.

If we don't protect our natural assets, we may lose them forever.

3. The Benefits of Protecting Natural Areas in Communities

"Ecologists have provided convincing data that doing the right thing by maintaining biodiversity is not only virtuous, it's also good business."(Mark Winston 2000)

"For Canadians of all ages, protecting the environment is not an option – it is something that we simply must do. It is a fundamental value – beyond debate, beyond discussion." (Paul Martin 2001)

Why should we bother protecting natural areas? Quite simply, it benefits us. It's good for the economy. It's good for the livability of our region. It's good for the biodiversity of our region. And it's good for our health.

Sometimes you hear "we can't afford to protect this area." Perhaps we should think just as hard about the costs of not protecting that area. Ironically, we often realise the value of natural areas only when they are gone. The B.C. Ministry of Water, Land and Air Protection estimated that one Lower Mainland community could have avoided stormwater flooding damage of about $2.5 million on one stream alone had riparian buffers been in place (MWLAP 2001c).

Read on to sample just some of the benefits of protecting natural areas.


B. Whittington

3.1 Ecosystem Services – Free!

"No one would run a business without accounting for capital outlay. Yet all too often we overlook these costs as they relate to natural capital, for which there are no known substitutes at any price and which are essential for human survival. Not accounting for these [ecological functions] costs has led to waste on a huge scale." (Paul Martin 2001)

The next time you pass a tree on the street, think of its value. A 50 year-old urban tree is worth an estimated $57,000, based on an annual value of $73 for air conditioning, $75 for soil benefits, $50 for air pollution control and $75 for wildlife habitats, compounded at 5% interest over 50 years (National Tree Community Foundation 1992).

Ecosystems provide the infrastructure and services that allow us to live and work on this planet. They provide foods and medicines, fibres for clothing, wood for our homes and enjoyment though activities such as

eco-tourism. A team of ecologists and economists estimated the annual value of the world's ecosystems, and found (conservatively) that ecosystems provide at least US$33 trillion worth of services annually. (This compares to the world GNP of about US$18 trillion per year.) (Costanza et al. 1997)

> *"Ecosystems regulate our climate, clean our fresh water, regulate and clean atmospheric gases, maintain genetic diversity, sustain the water cycle, recycle nutrients, and pollinate our crops. Simply put, at no cost to us, ecosystems provide the services that allow us to live on the Earth." (McPhee et al. 2000)*

Ecosystems provide a variety of "services" that we often take for granted, such as stormwater management, cleaning the air and water, pollinating crops and controlling pests.

Stormwater management

Natural areas soak up the rainfall. By retaining streams and wetlands as well as the natural vegetation, municipalities can dramatically reduce the need for expensive storm sewer infrastructure. Residents of Johnson County, Kansas, saved US$120 million on engineered stormwater controls by setting aside US$600,000 worth of riparian greenways. The streams of southern Staten Island, New York, have saved that community hundreds of millions of dollars because they handle rainwater so efficiently that there is no need to build more storm sewers (Sandborn 1996).

> *"Retaining natural wetlands can avoid the ironic situation where, after decades of draining and filling wetlands, communities are having to build expensive artificial wetlands to fulfil the pollution-cleansing and hydrological functions of the original wetlands." (Ibid.)*

Cleaning the air

Trees and shrubs produce oxygen, while absorbing carbon dioxide and atmospheric pollutants from the atmosphere. A study by American Forests found that the Puget Sound region has lost 37% of its high vegetation and tree canopy coverage over the past 25 years. This lost tree canopy would have removed about 35 million lbs. (13,000,000 kg) of pollutants from the atmosphere annually, at a value of approximately US$95 million dollars (American Forests 1998). The tree canopy in Portland, Oregon still absorbs an estimated 2 million lbs. (750,000 kg) of

pollutants from the air every year, worth an estimated US$4.8 million (American Forests 2002a).

> *"Researchers estimate that planting 95,000 trees… would result in a net benefit of US$38 million over 30 years." (Burton 2002)*

American Forests suggests that an average of 40% of a community should be left in a forested state, in order to fully gain the benefits of trees. This is based on 15% for commercial areas; 25% for urban residential areas; and 60% for suburban areas (American Forests 2002b).

Cleaning and replenishing the water

Wetlands act as water filters that clean oils and other pollutants from the water before they reach our creeks and streams. This process is so efficient that many developments build engineered wetlands to filter water from roads and parking lots.

Natural areas allow rainwater to soak into the soil, and replenish the water table.

D. Copley

Pollinating crops and controlling pests

Natural areas provide habitats and food sources for many natural pollinators. The services they provide we often take for granted – until they are gone. In 1970, foresters in New Brunswick began using a chemical called fenitrothian to control spruce budworm. Unfortunately fenitrothian is highly toxic to wild bees. Without natural pollinators, the local commercial blueberry crop was reduced by 665 tonnes (Kingsmill 1993).

Don't like mosquitoes? Thank the bats and birds who help to consume millions of the pests. And then make sure you protect the natural areas where these useful predators live.

> *"What happens when those natural systems that we take for granted – ecosystems that provide us with clean air and water – start to fail? Or, in economic terms, start to become more scarce, like diamonds?" (Green Business News 2002)*

3.2 Economic Benefits

Paul Martin (2001) stated "I believe… that the state of our environment is inextricably linked to our country's economic performance."

> *"Without prices being set, nature becomes an all-you-can-eat buffet. And I don't know anyone who doesn't overeat at a buffet." (Sandor 2002)*

The economic benefits of protecting natural areas aren't always obvious, but they can be significant.


B. Whittington

3.2.1 Increased Property Values

Where are the most desirable places to live in Greater Victoria? Places like Broadmead Village are often cited, because they offer a combination of nice homes, nearby shops and schools, and – not least – trees and parks that help to create the ambience of the area.

Properties adjacent to natural areas are worth more. This is good for the developer, who sells at a higher price, and the municipality, who benefits from higher property taxes. A study of properties in the Lower Mainland and south Vancouver Island found that residential property values increase by 15-20% when close to greenways (Quayle and Hamilton 1999). Other studies have shown that property values increase by as much as 23-33% when adjacent to parkland. Increases in property values as a result of greenspace acquisition in a Boulder, Colorado neighbourhood increased property taxes sufficiently to pay back the original investment in just a few years (Sandborn 1996).

Quayle and Hamilton (1999) found that people who live near greenways tend to live in their houses longer than those who do not. This lower turnover rate results in more stable neighbourhoods and a greater sense of community. As well, houses near greenways tend to sell more quickly. Faster sales also save developers money by earning a faster return on their investment. The National Association of Home Builders has encouraged the planting of trees because it increases the marketability of new developments (Petit 1998).

> *"Positive impacts on property values are generally the greatest when the natural open space has some recreational access, limited use, few or no developed facilities, limited vehicular access, and effective maintenance and security." (Curran 2001)*

3.2.2 Reduced Costs for Developers and Communities

If new residential areas are clustered in one part of a lot in order to protect a natural area (see Chapter 4), there can be considerable savings to the developer.

Major capital savings in the construction costs can be achieved through shorter, narrower roads and shorter lengths of water, gas and sewer lines, and power and telephone lines. This also saves money for the local governments and utilities companies (and therefore taxpayers) when they take over the maintenance of these systems.

> *"Cluster development can reduce the capital cost of subdivision development by 10 to 33%, primarily by reducing the length of infrastructure needed to serve the development. It can also reduce the area that needs to be cleared and graded, a cost saving of up to US$5000 per acre." (Center for Watershed Protection 1996)*

Other "nature-friendly" designs can help to reduce costs. Planting with drought-resistant native plants can reduce the time and money needed for watering and mowing roadside verges.

> *"Corporate landowners can save between US$270 to $640 per acre in annual mowing and maintenance costs when open lands are managed as a natural buffer rather than turf." (Wildlife Habitat Enhancement Council 1992)*

3.2.3 Faster Approvals for Developers

Developers often have to go through a public approval process, and the longer this takes, the more costly it is. Public support is generally higher where projects have clearly and genuinely taken the environment into consideration – and higher public support often translates into a less contentious, and thus faster, approval process.

> *"Developers who design for natural areas tend to get their application processed much faster because we can recognise protection in the design. Otherwise, we have to negotiate a different design or protection measures. There is definitely time and money savings right there." (A. Pollard, pers. comm.)*

Developers may also benefit from free publicity because "green" developments attract lots of media interest. For one "green" multi-unit property in Vancouver, developers "relied on on-site signage, word of

mouth and personalised marketing, saving an estimated $650,000 in advertising and $850,000 in real estate agents' leasing and sales fees." (Curran 2001) They pre-sold 75% of the units.

3.2.4 Lower Costs, More Benefits for Homeowners

Where trees shade a home, the heating costs are lower in winter (because of the windbreak effect) and air conditioning costs are lower in summer (because of the shade provided). Homes and businesses that retain trees save 20 to 25% in their energy bills for heating and cooling, compared to homes where trees are cleared (Schueler 1996).

> *"Deciduous trees placed on south and west sides provide shade and can lower air conditioning costs by 10-15%." (International Society of Arboriculture 1995)*


B. Whittington

3.2.5 Business Benefits

> *"Practising healthy environmental stewardship isn't just a matter of good citizenship, it's a matter of good business." (Reiten 1990)*

The livability of a region gives it a competitive edge in economic development.

A 1998 survey of new residents to the state of Oregon found that they had moved to the state primarily because of the high quality of life, particularly its natural environment (Helvoigt 1999). Many jobs, particularly those in the high-tech sector, can be located anywhere – and communities are finding out that a healthy natural environment can be a key "selling" feature in attracting growth to their community. Cities such as Sacramento, California and Boulder, Colorado, aggressively market their urban greenspaces to attract new business.

Developments that incorporate innovative designs and features, particularly those that protect or enhance the local environment (such as retaining mature trees rather than planting new ones), can be seen as positive to a consumer or purchaser. This gives opportunities to create "brand differentiation" in the competitive market.

> *"On a beautiful site… [Vancouver Island Technology Park]'s nature-like campus setting offers: pathways and trails; a salmon-bearing creek; access to parkland, wilderness areas and gardens in the adjacent facilities; quiet places to think, talk or unwind…" (Vancouver Island Technology Park 2002)*

3.2.6 Tourism Opportunities

Tourism is an important economic force in the Capital Region. Tourism Victoria notes that the natural environment is one of the key features that draw tourists to this region. In 2000, more than half the visitors surveyed indicated that scenery and natural environment was a very important reason for visiting. Walking and hiking tied for first place with dining out as the most popular activity for visitors (Tourism Victoria 2000).


B. Whittington

> *"The Islands are recognized as a premiere bird-watching destination and draw both ornithologists and amateur birders from around the world." (Tourism Vancouver Island 2002)*

> *"Over 380 different species [of birds] have been recorded in this region with average yearly totals in Victoria of over 240 species… The variety and diversity of habitat offers an exciting birding tour for any birder." (Victoria, Vancouver Island and Gulf Islands Travel and Business Guide 2002)*

Eco-tourism is a rapidly growing industry for which the protection of the natural environment is vital. In 1996, 2,500,000 British Columbians participated in nature-related activities, spending a total of $1938 million and creating 34,100 jobs (Environment Canada 2000).

Natural parks are a major economic generator. For every dollar invested by the provincial government in the protected areas system in 2000, visitors spend about $10. Almost one-third of these expenditures were from out-of-province visitors (making provincial parks the equivalent of a significant export industry) (MWLAP 2001a). The Capital Regional District parks also generate considerable revenues locally. Regional parks and trails attracted more than 2.3 million visitors in 2000 (CRD Parks 2000a).

> *"…regional parks and trails attract people from outside this region. Expenditures by those visitors… include travel costs, lodging and accommodations, guide services, meals, groceries and purchase of equipment." (CRD Parks 2000b)*


B. Whittington

3.3 Community Benefits

"Clean air, fresh water, the sun rising through the mist on a mountain lake, an abundance of life on the land, in the air, and in the sea – the value of these things is incalculable." (Gore 1992)

There are many reasons for protecting natural areas which cannot be measured in dollars and cents, including less quantifiable benefits such as quality of life, livability and aesthetics.

3.3.1 Quality of Life

People like living near greenspace – that's why we're willing to pay more for nearby properties. Natural open spaces and walking/biking paths can be among the most important features in a residential neighbourhood (Warrick and Alexander 1997).

Polls show that environmental values are important to us (Reid 2000):

- 90% of Canadians continue to be concerned about the state of wildlife and natural habitats;
- 90% of British Columbians feel strongly that nature is crucial to human survival; and
- 76% of British Columbians are concerned about species loss.

In a study of "environmental autobiographies" describing favourite childhood places, over 80% of university students cited "wild or leftover places… that were never specifically designed. If they grew up in a developing suburb, they remembered the one vacant lot at the end of the street that wasn't developed." (C. Cooper-Marcus, pers. comm.)

"There may not be obvious benefits to protecting green-spaces and establishing parklands, but many of us have fond memories experienced in parks. Whether it is a park near your home, a memory from your childhood, or a park you pass on the way to work, parks and green-spaces are important to us. They provide recreation; trees add beauty and reduce the effects of pollution. Did you know that parks could have the residual effect of raising property values and reducing crime? By giving people a greater sense of pride in where they live by improving the area's appearance and the quality of the environment, parks and open space do all those things and more." (District of Langford 2002)


B. Whittington

3.3.2 Viewscapes

In Greater Victoria, we are accustomed to views of forests and woodlands, vegetated rocky bluffs, shorelines, inland cliffs and patches of meadow. Even natural areas that we cannot access have value in our society as viewscapes. The Sooke Hills provide a pleasing backdrop to many Victoria residents, even if they never go there. The scenic beauty of these and other ecosystems is a source of pleasure and pride for local residents and source of attraction to visitors from around the world.

3.3.3 Recreation

North American trends show that outdoor recreation participation rates are increasing significantly for those types of activities encouraged locally in Capital Regional District parks – wildlife viewing, nature study, bird watching and beach recreation – while rates are decreasing for more facility-oriented activities such as field sports and ice sports. Between 1991 and 1996, visits to CRD Parks increased by 100% while the population of the region increased by less than 10% (CRD Parks 2000a).

> *Economists have calculated that each acre of coastal wetland contributes from US$800 to $9000 to the local economy through recreation, fishing and flood protection (Kirkby 1993).*

3.3.4 Health

Apart from giving us clean air and clean water, natural areas contribute to our mental and physical health. Sometimes we need to just 'get away from it all' or 'take a walk in the woods' – by having natural areas close to home we contribute to our mental health by being able to return to nature on a daily basis rather than experiencing it infrequently on camping and hiking trips.

Greenways contribute to people getting out for walks and viewing nature (Quayle and Hamilton 1999). And the exercise is good for our physical health too.

3.3.5 Research and Medicines

Natural areas contain a wealth of information. Current research in old-growth forests is providing information on forest genetics and ecology that is allowing the commercial forest industry to increase production.

Almost half of all prescription drugs used to treat diseases are derived from living organisms. For example, the bark of the Pacific western yew

contains taxol, a compound that damages cancerous cells but not normal ones. Of Canada's 134 native tree species, 38 have one or more recorded medical uses (Canadian Wildlife Service 2002).

Plant-based medicines from uncultivated plants are worth US$50 billion each year. Anti-cancer drugs from one species, the rosy periwinkle, are valued at US$250 million annually, and help to save 30,000 lives from Hodgkin's disease and leukaemia in the U.S. each year (Winston 2000).

> *"Frogs may one day be the source of some astonishing medicines. Researchers…have found numerous medical uses for compounds extracted from the secretions of frogs, such as a non-addictive painkiller 200 times more powerful than morphine… a possible treatment for schizophrenia, and a natural glue that could replace stitches after surgery." (Canadian Wildlife Service 2002)*

More is unknown than known about natural systems. If these species and ecosystems disappear, we may never know what we have lost. The US National Research Council estimated that if only one as-yet-undiscovered plant species with medicinal value goes extinct every two years, the cumulative retail loss from drugs not invented will total about US$300 billion by the year 2050 (Winston 2000).


D. Greer

3.4 Wildlife and Biodiversity

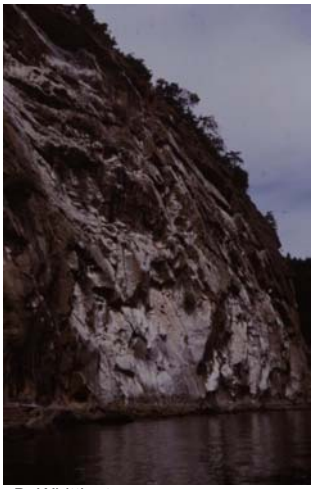
Just like us, wildlife needs a place to live. Some species are able to adapt well to urban and suburban environments, such as pigeons, sparrows, racoons and dandelions. Even some of the rarer native species have coped fairly well in low-density residential areas and medium-sized parks.

Many species, however, are less adaptable, and need more natural settings to survive. Although a small patch of woodland may seem like just an isolated piece with no value, it may have incalculable value as a feeding, breeding or nesting area for some local species. If we are to retain the diversity of wildlife species in the Capital Region, we have to retain a diversity of habitats.

"Biodiversity" is variety of life on earth. It includes the diversity of ecosystems (ecosystem diversity), of species (species diversity), and the diversity within species (genetic diversity). Canada is a signatory to the 1992 UN Convention on Biological Diversity, a commitment to conserve the biodiversity of the planet. Many people believe that biodiversity has

an intrinsic value that is worth protecting regardless of its value to humans.

Scientists sometimes liken the loss of biodiversity to the rivets holding an airplane together. You can lose several rivets, and the airplane will still fly. But at some point, one too many rivets is removed and the plane crashes. Our problem is, we don't know how close we are to that "one last rivet." Another way of looking at this is the threads in a complex tapestry. You can pull out a few threads and still see the picture. But pull too many threads – especially in one area – and the picture unravels.


B. Whittington

3.5 Additional Information on the Benefits of Natural Areas

Corridors of Green and Gold: Impact of Riparian Suburban Greenways on Property Values
Moura Quayle and Stan Hamilton. 1999. Prepared for Fraser River Action Plan, Fisheries and Oceans Canada.

> This report examines the economic effect of riparian greenways on adjacent property values in several suburban communities in the Lower Mainland and east coast Vancouver Island.

Hinterland Who's Who: The Benefits of Wildlife
Environment Canada: Canadian Wildlife Service. 2000.

> One of the "Hinterland Who's Who" series. The brochure discusses the importance of wildlife to Canadians in economic terms, for recreational uses, for science, agriculture and for medicine. Available on-line at www.cws-scf.ec.gc.ca/hww-fap/benefits/benefits.html

Economic Benefits of Natural Green Space Protection
Deborah Curran. 2001. Co-published by the POLIS Project on Ecological Governance (University of Victoria) and Smart Growth British Columbia.

> A research paper prepared for the District of Saanich. It reviews the literature documenting the effect of natural open space preservation on property values, and discusses the economic benefits of this approach for land developers and municipalities. Available on-line from Smart Growth BC website under "Reports and Publications": www.smartgrowth.bc.ca/index.cfm?group_id=3440

The Importance of Nature to Canadians: The Economic Significance of Nature-related Activities
Environment Canada: Canadian Wildlife Service, 2000

Results of a 1996 national survey that assesses the social and economic values of nature-related activities to Canadians. Updates the information previously available from the "Importance of Wildlife to Canadians" surveys. Available on-line at www.ec.gc.ca/press/000607_b_e.htm

4. Tools for the Protection of Natural Areas

The first step in protecting a natural area is wanting to protect it. Once decision-makers have agreed that they would like to protect a natural area, there are many ways this can be done. This chapter deals with the tools that local governments, developers, conservation organisations and landowners can use. We have provided some examples of the use of these tools, but many more examples exist. All it takes is the willpower and sometimes a little creativity.

Protecting natural areas in the Capital Region involves:

- K**nowing what to protect, and why.** Inventories provide information to determine which areas should be a priority for protection (see section 4.1: Inventory);
- **Planning for protection:** This information should be reflected in local government policies and plans (see section 4.2: Policy and Plans);
- **Knowing what tools are available** to protect natural areas, especially if the money to purchase land is limited. These tools fall into four categories:
    - **Regulatory tools** that governments can use to protect natural areas (see section 4.3: Regulatory Tools for Local Governments and section 4.4: Tools for Federal and Provincial Governments);
    - **Incentives**, economic and otherwise, which will encourage private landowners and developers to protect natural areas (see section 4.5: Incentives for the Protection of Natural Areas);
    - **Acquisition** of natural areas, by local governments and others (see section 4.6: Land Acquisition); and
    - **Landowner stewardship tools** that individual landowners can apply (see section 4.7: Landowner Actions).

These tools are discussed briefly in the following sections, with references to additional sources for more detailed information.

***Note**: The material provided is for information only. Any local government or conservation organisation planning to use these tools is advised to **seek additional information and consult with qualified legal counsel**. Legislation changes over time, so some reference sources become outdated. Readers are encouraged to check the provincial government website at*

(www.qp.gov.bc.ca/statreg/) for up-to-date copies of the Local Government Act *and other legislation.*

4.1 Inventory

In order to protect natural areas, you first have to know where they are! There are several sources of information in the Capital Region that provide a starting point, listed below. However, when making a decision about any property, nothing replaces a first-hand look by a professional ecologist, who can tell you which are the most sensitive areas and important values of that land.

In the Capital Region, sources of inventory information include:

- The **Sensitive Ecosystems Inventory** (SEI): A federal/provincial **inventory** that has mapped sensitive ecosystems on east Vancouver Island and adjacent Gulf Islands. Copies of the maps are available at all local government offices. Note that this inventory only maps sensitive ecosystems larger than 0.5 ha. For more information see the Sensitive Ecosystems Inventory reports, or srmwww.gov.bc.ca/sei/index.html

- The **Conservation Data Centre** (Ministry of Sustainable Resource Management) maintains a **database** with information on locations of rare plants, animals and plant communities, and other features such as significant trees. For more information contact the Conservation Data Centre or visit srmwww.gov.bc.ca/cdc/

- The **Capital Regional District** has developed a **Natural Areas Atlas** that includes information from a variety of sources, including the SEI, fisheries information, Conservation Data Centre rare element occurrences, etc. For more information visit www.naturalareasatlas.ca

- **Victoria Natural History Society** (VNHS): The VNHS **Green Spaces Project** has been conducting field work in a number of locations in the Capital Region. For more information visit the Conservation Connection website (www.conservationconnection.bc.ca) and follow the links to VNHS Green Spaces Project.

- The **Islands Trust** has **Landscape Classification Mapping** that identifies natural and modified ecosystems on the southern Gulf Islands. Its purpose is to provide information for decision-makers, landowners and conservation groups, and will be used for developing a Regional Conservation Plan for the Islands Trust Area.

- Some municipalities have conducted additional **inventories** in all or parts of their jurisdiction. For example, Saanich has developed an Environmentally Sensitive Areas Atlas, and Central Saanich has developed a Resource Atlas. Contact your municipality to find out what information exists.

- There are many **consultants' reports** that have been prepared for a variety of purposes. Contact your local planning department and local land trust organisations for sources specific to your municipality.

- Many individuals and communities have prepared their own **maps** of their area to document important natural features. For example, the **Common Ground Community Mapping Project** has supported several community mapping initiatives in this region. For information see www3.telus.net/cground/

"On Salt Spring Island, one woman walked up and down a watershed, preparing a 'treasure' map which helped convince provincial ministry officials to put restrictive covenants on the creek and swamp areas which created a… fresh and salt water canal needed by spawning salmon." (Harrington 1999)


B. Whittington

4.1.1 Additional Information on Inventories

Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands
Environment Canada and Ministry of Environment, Lands and Parks.

There are two technical reports in addition to the maps themselves:

- Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997. Volume 1: Methodology, Ecological Descriptions and Results. Ward, P. et al., 1998. Technical Report Series No. 320, Canadian Wildlife Service, Pacific and Yukon Region, British Columbia.

- Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997. Volume 2: Conservation Manual. McPhee, M. et al., 2000. Technical Report Series No. 345, Canadian Wildlife Service, Pacific and Yukon Region, British Columbia.

Volume 1 (Technical Report) explains the methodology used in the SEI, provides technical descriptions of the sensitive ecosystems and provides results of the inventory by region and municipality. Volume 2 (Conservation Manual) provides management recommendations for each of the ecosystem types, and describes how local and senior governments can use the available tools to protect sensitive ecosystems.

Giving the Land a Voice: Mapping Our Home Places
Sheila Harrington (editor). Land Trust Alliance of British Columbia. Revised edition 1999.

Giving the Land a Voice explains the importance of encouraging people to map their home places, and better understanding their relationship to the land. The manual describes basic cartographic techniques, doing base maps and surveys, and includes many examples of maps produced by individuals and communities.

4.2 Policy and Plans

Natural areas are valuable community assets and should be clearly identified as such in all plans and policy decisions. Identifying important natural areas helps developers, who then know that their development plans will need to take these assets into account, and local government decision-makers, who then know that their decisions must address the protection and management of these areas.

At the same time, it is important to realise that some landowners may feel that having part of their land recognised as an environmentally sensitive area may limit or eliminate any development potential from their land. Some of the incentives (see section 4.5) may help to address these concerns.

There are many levels of planning/policy document that can and should address natural area protection:

- at the regional level: regional growth strategies and regional park plans;
- at the municipal level: Official Community Plans, greenways plans and/or park master plans;
- at a neighbourhood level: Local Area Plans or neighbourhood plans.

4.2.1 Regional Policy Documents

Region-wide policy documents relating to natural areas in the Capital Regional District (CRD) include the *Regional Green/Blue Spaces Strategy*, the *CRD Parks Master Plan* and the *Regional Growth Strategy*. In the Islands Trust area, growth and development is subject to the Islands Trust Policy Statement.


B. Whittington

4.2.1.1 Regional Green/Blue Spaces Strategy

In 1997, the Capital Regional District and Provincial Capital Commission prepared a *Regional Green/Blue Spaces Strategy* that identified "natural and semi-natural areas, both land and water, that are of ecological, scenic, renewable resource, outdoor recreation and/or greenway value." This strategy identified four principal elements:

- **Green/Blue Space Core Areas:** existing parks, valuable unprotected land and marine environments, and the region's water supply lands;
- **Greenways:** corridors that link green/blue spaces;
- **Renewable Resource Working Landscapes:** agricultural and managed forest lands; and
- **Valuable Remnant Ecosystems:** sensitive environmental lands not included in green/blue space core areas.

This document has been a basis for both the Capital Region's District Parks Master Plan and the Regional Growth Strategy.

> *"All of us who live in the Capital Regional District cherish the natural environment that is so essential to our quality of life… [W]e cannot be complacent. As the region's population continues to grow, we must ensure that the stewardship of the natural environment remains integral to all forms of urban, suburban and rural development." (*Regional Green/Blue Spaces Strategy*, CRD Parks and Provincial Capital Commission 1997)*

4.2.1.2 Regional Park Master Plan

The CRD Parks Master Plan (2000) is a strategic document that sets out the vision and purpose of CRD Parks for the coming years. Protecting the natural environment is considered CRD Parks' primary responsibility.

The Parks Master Plan identifies areas of regional park interest (as well as potential regional trails). CRD Parks is now working with municipalities, land trusts and others to acquire additions to the regional parks system.

4.2.1.3 Regional Growth Strategy

A regional growth strategy is a plan that defines and shapes the form of settlement at a regional scale. Its purpose is to "promote human settlement that is socially, economically, and environmentally healthy and that makes efficient use of public facilities and services, land and resources." (CRD 2003) It provides an opportunity to identify natural areas and promote their protection.

The Regional Growth Strategy for the Capital Region (Ibid.) defines a common vision, goals and regional priorities and strategies to manage growth to the year 2026. It is founded in part on the 1997 Regional Green/Blue Spaces Strategy, and balances environmental objectives with other, competing needs related to such things as housing, agriculture, employment, and transportation. Through its support in implementing the Regional Green/Blue Spaces Strategy, the Regional Growth Strategy aims to protect the landscape character, ecological heritage and biodiversity of the Capital Region.

A Regional Growth Strategy is an important tool to protect natural areas as it identifies the areas of critical ecological value within the region, and shows how they are linked together. This encourages municipalities to think beyond their borders about connecting their greenspace with their neighbours'.

Part of the Regional Growth Strategy is the establishment of an Urban Containment Boundary. The Urban Containment Boundary is designed to curtail sprawl, which has enormous negative impact on the natural environment. (Municipalities may also have an urban containment boundary: the District of Saanich has had one since 1964.)

> *In CRD-wide surveys taken during the creation of the Regional Growth Strategy, 82% of respondents agreed that an Urban Containment Boundary should be created and 81% said it is acceptable to severely restrict the expansion of built-up areas outside the Urban Containment Boundary (Campbell Goodall Traynor Consultants Ltd. 2000).*

Once a Regional Growth Strategy is approved, municipalities are required to prepare Regional Context Statements to their Official Community Plan with policies demonstrating how they will conform to the Regional Growth Strategy.


B. Whittington

4.2.1.4 Islands Trust Policy Statement

The Regional Growth Strategy for the Capital Region does not apply to the Gulf Islands. These are covered instead by the Islands Trust Policy Statement.

In recognition of the international significance and fragility of the Gulf Islands, the provincial government enacted the *Islands Trust Act* in 1974. It created the Islands Trust, a federation of local island governments with land use planning jurisdiction and a unique conservation mandate. The Islands Trust Policy Statement provides regional policy for the Trust Area, guiding the development of Official Community Plans and land use regulations so that the Islands are protected for residents and all British Columbians.

4.2.2 Official Community Plans

> *"An official community plan is a statement of objectives and policies to guide decisions on planning and land use management, within the area covered by the plan, respecting the purposes of local government." [Local Government Act s.875 (1)]*

An Official Community Plan (OCP) guides community development. It articulates a vision for the future, with policies and objectives to support that vision. It does not directly regulate land use and development, but zoning bylaws and development permits must be consistent with the Official Community Plan.

An Official Community Plan must:

- identify restrictions on the use of land that is environmentally sensitive to development; and
- show the location of public facilities, including parks.

An Official Community Plan may:

- identify the zoning map for all parts of the municipality (see section 4.3.1: Zoning Bylaws);
- identify environmentally sensitive areas as Development Permit Areas (see section 4.3.2: Development Permit Areas) in the Official Community Plan, and describe what restrictions will apply to development; and
- contain goals and policy statements that define a local government's intention to protect and conserve natural areas. Sample statements to protect environmentally sensitive areas are

provided in the Sensitive Ecosystems Inventory Conservation Manual (McPhee et al. 2000).

"Promote preservation of sensitive ecosystem areas and their living resources in a natural condition and maintain these areas free of development and human activity to the maximum extent possible. (Ibid)"

"Manage recreational access into ecosystems to minimise impacts especially during wildlife nesting season." (Ibid.)

The Official Community Plan is a useful tool for identifying and establishing guidelines for the development of natural areas. Note, however, that Official Community Plans are frequently amended by Council decisions, and identification of an area in an Official Community Plan is no guarantee of protection. When decision-makers are faced with a development project, they will balance a variety of needs, including housing, commercial, parks, transportation, and the environment.

Environmental values are given specific priority in some Official Community Plans:

"Because environmental impacts of human action are often irreversible and because Highlands residents place a high value on the quality of the local environment, Goal 1 will be considered the most important goal. Actions to achieve other goals will be taken only if they do not compromise the integrity of the natural environment." (District of Highlands Official Community Plan 1997).

4.2.3 Park Master Plans and Greenways Plans

A Park Master Plan looks at the system of parks within a region or municipality (federal, provincial, regional and municipal parks). Greenways Plans identify recreational greenways (trails) and/or ecological greenways (wildlife corridors). When natural areas are connected by wildlife corridors, their value as wildlife habitat increases.

Both types of plan can be used to identify environmentally sensitive areas and recreational greenspace. The advantage of these types of plans is that they focus on both the ecological and recreational values, and also look at the links between these areas. These plans are best incorporated into the Official Community Plan, but can also be used as stand-alone policy documents.

"The proposed environmental greenways system in View Royal… comprises riparian zones, shorelines, islets in and rocky bluffs overlooking Esquimalt Harbour, and salmon bearing watercourses during spawning periods. Of particular importance are the Millstream and Craigflower Creek riparian zones…" (Town of View Royal 2000)

4.2.4 Local Area Plans

More detailed local area plans may be prepared for some neighbourhoods. These plans form part of an Official Community Plan but allow for greater policy detail and focus on smaller natural areas than the municipality-wide plan.

The creation of local area plans allows the residents and property owners in those neighbourhoods to identify natural areas worthy of protection and other valuable greenspaces that may only be used and enjoyed by those within an immediate neighbourhood.

Local area plans can include strong policy statements to protect the natural environment. This level of detail can provide greater clarity of policy than the community-wide Official Community Plan.

The Willis Point Community Plan is strongly focused on maintaining the existing natural environment: "[A] high priority for this community plan is to safeguard the ecological integrity of our natural environment, ensuring that the fundamental link between the land and water is never severed." (Willis Point Community Plan 2003)


C. Copley

4.2.5 Additional Information on Policies and Plans

Regional Green/Blue Spaces Strategy
Capital Regional District Parks and Provincial Capital Commission. 1997.

The Strategy identifies why we should protect and maintain regional green/blue space areas, which regionally significant green/blue space areas should be protected and maintained, who can contribute, and how protection and maintenance can be achieved.

Capital Regional District Parks Master Plan
Capital Regional District Parks. 2000.

The CRD Parks Master Plan is a strategic, system-wide document. It provides a vision and purpose for CRD Parks, and gives direction for

stewardship in protecting the natural environment, and providing opportunities for outdoor experiences and activities.

Capital Regional District Regional Growth Strategy
CRD Regional Planning Services. 2003.

The regional growth strategy is a large scale planning initiative designed to address future growth and development issues in the Capital Regional District. It was developed in concert with 13 member municipalities and the CRD electoral areas, and several provincial agencies. For more information see www.crd.bc.ca/regplan/RGS/

Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997. Volume 2: Conservation Manual
McPhee, M., P. Ward, J. Kirkby, L. Wolfe, N. Page, K. Dunster, N. Dawe, and I. Nykwist. 2000. Technical Report Series No. 345, Canadian Wildlife Service, Pacific and Yukon Region, British Columbia.

The Conservation Manual describes how Official Community Plans can be used to protect sensitive ecosystems. Available on-line through srmwww.gov.bc.ca/sei/index.html

Community Greenways: Linking Communities to Country, and People to Nature
Lanarc Consultants Ltd. 1995. Department of Fisheries and Oceans, Ministry of Environment, Lands and Parks, British Columbia.

A manual on the benefits of greenways, and how to plan for, implement and manage a greenways network in communities. Part of the Stewardship Series of publications. Available on-line at www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp

Islands Trust Policy Statement

For more information see www.islandstrust.bc.ca

4.3 Regulatory Tools for Local Governments

Local governments (municipalities and regional districts) that wish to protect natural areas in their jurisdiction have the authority to enact a variety of bylaws to help them do so. This section focuses on the

regulatory tools available to municipalities. Regional Districts have many, but not all, of the same powers for the regulation of unincorporated areas.

The specific wording of these bylaws varies from municipality to municipality, and not all municipalities will have the same legislation – for example, some municipalities have tree protection bylaws, some do not. Many municipalities have copies of their current bylaws on their websites (see www.civicnet.gov.bc.ca/ .

4.3.1 Zoning Bylaws

Zoning bylaws control four major aspects of settlement: location (by creating distinctive zones); use (what can and cannot occur on land), density (the size and number of buildings that may be constructed), and siting (the location of buildings and other structures, including setbacks). Zoning may be altered by Council decision, usually at the request of a developer.

Zoning bylaws can be used to protect natural areas:

- Zoning bylaws can include setback provisions that require buildings, parking lots or other uses to remain a certain distance from a specified boundary (such as the high water mark or a property boundary). This can be used to protect stream corridors or other natural features from development.
- During re-zoning negotiations, some areas can be developed at higher density in return for the protection of environmentally sensitive areas. (See also section 4.5.1.1: Clustering.)
- Zoning bylaws can establish "Comprehensive Development Areas" for large or complex sites. This means development on that site will be considered in its entirety, rather than looking at piecemeal development of the property. This allows for more careful site planning for the protection of environmentally sensitive areas.

> *"Through the use of comprehensive development zones, the City of Burnaby is able to achieve all of its site-specific environmental goals. The City also has a policy that if sensitive areas are within a proposed subdivision, the land is dedicated as a condition of the rezoning." (Harris 2001).*

Public lands may be zoned as parks. (Private lands may not be zoned as park, as this is seen as taking away a landowner's rights). Most municipalities have one or more "park" zones in their zoning bylaw,

which can be used to protect natural areas. Be aware that some municipal "parks" are focused strictly on developed parks such as playfields and playgrounds. A community plan to protect a natural area should have a "natural park" zone that allows the area to remain in a relatively natural state, perhaps with some trail development. Linear parks are a good option to protect wildlife corridors as well as trails.

> *"The City of Surrey differentiates between active and passive parks; active parks being playing fields and recreation areas, passive parks being important habitat and environmentally sensitive areas. With an acquisition budget of between $15 and $20 million per year funded through development cost charges and cash-in-lieu of park land dedication, significant tracts of land are acquired." (Ibid.)*


C. Copley

Very low density zones can be used to protect natural features. If a landowner has a very large lot (over 4 ha), typically only a small portion of the lot is developed for the homestead, and the remainder stays in a relatively natural condition. Metchosin, Langford and Highlands all use large lots to protect the rural nature of their communities. (The downside of low density development is that it encourages sprawl.)

> *The District of Highlands uses a greenbelt zone (minimum lot size for subdivision is 12 hectares), as a way of preventing piecemeal rural subdivision until a development plan can be provided that may create very small clustered lots and preserve large, contiguous areas most appropriate for such preservation (K. Key, pers. comm.).*

(See also section 4.5.1: Encouraging Development in Less Environmentally Sensitive Areas for more information.)


B. Whittington

4.3.2 Development Permits

Official Community Plans can establish Development Permit Areas (DPAs), which can only be developed in accordance with specified guidelines. Development cannot occur in these areas until a development permit has been obtained. The Sensitive Ecosystems Inventory Conservation Manual (McPhee et al. 2000) describes a variety of ways in which DPA guidelines can be worded to protect environmentally sensitive areas.

Development permits can:

- Establish special requirements that apply to the development or redevelopment of an area, including the preservation, protection,

restoration or enhancement of the natural environment, its ecosystems and biodiversity; and

- Require Development Approval Information to be prepared by qualified environmental professionals prior to development approval. This could include an extensive inventory of the site's natural values.

Like any tool, development permits have their challenges. One is the belief that a development permit protects things such as natural features. Although the legislation states that land requiring a development permit cannot be altered, subdivided, or built upon without a development permit, local governments may grant exemptions. More importantly, development permits do not prohibit development; rather they allow it subject to certain stated guidelines.

Several municipalities (including the District of Langford, City of Colwood and the District of Highlands) have identified all of the Sensitive Ecosystems Inventory sites as DPAs in their Official Community Plan. This ensures these sensitive ecosystems are considered during the development approval process.

The District of Langford has three types of Development Permit Area for environmental protection (District of Langford 1999):

- *Riparian zones;*
- *Sensitive ecosystems; and*
- *Areas with potential habitat and biodiversity values.*

4.3.3 Subdivision Approvals

Subdivision proposals must be examined and approved by an Approving Officer (a designated municipal employee) to ensure that they conform to local bylaws.

To protect natural areas, the Approving Officer may:

- Refuse to approve a subdivision if it is considered "against the public interest." [*Land Title Act* s.85(3)] This could include refusing development in an environmentally sensitive area (if sufficient cause can be shown);
- Request up to 5% of the land be dedicated for park or public open space (see also section 4.6.1.1: Park Dedication by Subdivision);
- Seek restrictive covenants (*Land Title Act* s. 219) or conservation covenants to protect environmentally sensitive areas (see section 4.7.4: Conservation Covenants);

- Ask for more detailed studies of environmentally sensitive areas, or request an Environmental Impact Assessment;
- Reduce the number of permitted lots; and
- Have the subdivision redesigned for natural area protection.

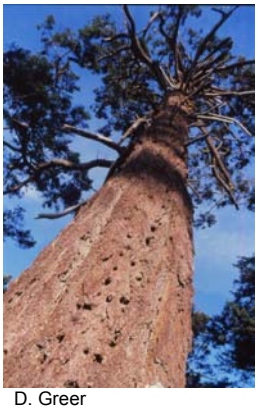
In the District of Saanich, preliminary reviews of all subdivisions, rezoning and development permit applications are conducted for environmental concerns as part of the Environmental and Social Review (ESR) process (A. Pollard, pers. comm.).


B. Whittington

In Langford, fire marshals requested that trees close to a proposed subdivision (adjacent to a park) be cut to reduce the fire hazard. Instead, the subdivision approval required that sprinklers be installed in all homes to reduce the fire hazard – sparing the trees (M. Baldwin, pers. comm.).

Secondary development approvals may be required after the initial subdivision. For example, a residential subdivision of vacant lots may be approved but still require permits for tree cutting or building within close proximity to a watercourse or lake. Piecemeal, site-by-site approvals may have a cumulative, negative environmental effect that would not have been acceptable if it was identified as a whole during the conceptual and planning phase of a project. This can be prevented by ensuring that the effects of subsequent development of a property are well thought out at the time of subdivision, and by ensuring that the layout will minimise negative environmental effects.

4.3.4 Tree Protection Bylaws


D. Greer

Municipalities may enact a Tree Protection Bylaw to restrict or prohibit tree removal, or encourage retention or replanting of tree cover in urbanising areas.

Tree protection bylaws can be used to:

- Designate environmentally sensitive areas as areas for special tree cutting regulations;
- Require permits for cutting or removal of trees in the municipality;
- Prohibit tree removal in environmentally sensitive areas. (Permits can restrict removal to hazard trees only, and specify that any trees removed must be replaced);
- Restrict tree removal before and after a development;

- Establish a maximum treeless area associated with development. (The municipality may specify that existing native trees remain on the site, or that replacement native trees be planted); and/or
- Identify significant trees (heritage, landmark or wildlife) and set standards for their protection.

*The District of Metchosin has a **Tree Management Bylaw** that provides restrictions on the removal of trees.*

*The District of Oak Bay has a Garry oak **Tree Protection Bylaw** that protects Garry oaks outside of the building envelope in the setbacks provisions of the zoning bylaw.*

"A 'wildlife tree' is any standing dead or live tree with special characteristics that provide valuable habitat for the conservation or enhancement of wildlife. Wildlife trees provide feeding, nesting, denning and shelter habitat for over 80 species of birds, mammals and amphibians in British Columbia." (Ministry of Environment, Lands and Parks 1998)

4.3.5 Other Municipal Bylaws

4.3.5.1 Animal Control Bylaws

Municipalities can enact bylaws to control pets and livestock.

Animal control bylaws can be used to:

- Regulate or restrict the keeping of domestic animals (rabbits, goats, horses, sheep etc.) in areas where their grazing may damage natural habitats; and
- Require dog (and cat) owners to keep their pets leashed in specified public areas, to avoid disturbance to the wildlife.

4.3.5.2 Soil Removal and Deposit Bylaws

Soil bylaws can be used to:

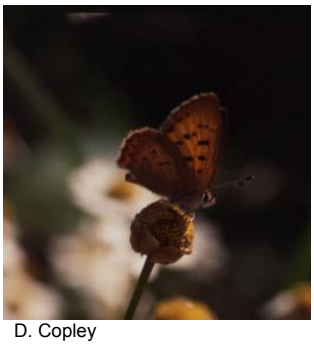
- Require permits for soil removal and deposition (above a specified amount), so that a natural area is protected during and after land development;
- Prohibit certain soil contaminants that can leach out into aquatic habitats;
- Set erosion control standards to ensure that the soil does not wash its sediments into a stream or water body; and
- Require a buffer area around environmentally sensitive areas.

The District of North Vancouver has enacted an Environmental Protection and Preservation Bylaw – a comprehensive bylaw that permits a development only if it meets certain requirements. Permits are needed for soil removal and deposit, tree removal, and development on aquatic areas and sloping land (Harris 2001).

4.3.5.3 Landscaping Bylaw

Landscaping bylaws can be used to:

- Set standards for screening and landscaping in order to preserve and enhance natural areas; and
- Regulate the provision of landscaping including the use of native species.


D. Copley

4.3.5.4 Watercourse Protection Bylaws

Watercourse protection bylaws can be used to:

- Prevent the damming or obstruction of watercourses;
- Incorporate the benefits of flood protection with habitat protection;
- Require permits for all work in a watercourse or watercourse leave area, and require detailed plans and an environmental impact statement as part of the permit application;
- Require that all watercourses remain above ground (encouraging bridges rather than culverts); and
- Require that the standards of design and construction from the Land Development Guidelines (Chillibeck et al. 1992) be met (see section 4.4.6: Standards and Best Management Practices).

4.3.6 Additional Information on Regulatory Tools for Local Governments

Stewardship Bylaws: A Guide for Local Government
Lanarc Consultants Ltd. 1997. Co-published by Fisheries and Oceans Canada and the Ministry of Environment, Lands and Parks.

A guide to the stewardship bylaws available to municipalities and regional districts in British Columbia. Includes sample bylaw wording. Part of the Stewardship Series of publications. Available on-line at www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp

The Smart Growth Toolkit
Smart Growth BC. 2001. Smart Growth BC, Vancouver.

> An overview of the tools available to promote smart growth, including tools available to local governments and to citizens groups. For copies contact Smart Growth BC, www.smartgrowth.bc.ca

The Smart Growth Guide to Local Government Law and Advocacy
Linda Nowlan, Chris Rolfe and Kathy Grant. 2001. West Coast Environmental Law.

> A comprehensive guide to local government planning processes, with a view to promoting 'smart growth', including the protection of green space in communities. Available from Smart Growth BC, www.smartgrowth.bc.ca

Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997. Volume 2: Conservation Manual
M. McPhee, P. Ward, J. Kirkby, L. Wolfe, N. Page, K. Dunster, N. Dawe, and I. Nykwist. 2000. Environment Canada, Canadian Wildlife Service Technical Report Series 345.

> Section Two, Conservation Tools, describes a variety of regulatory tools available to local governments, senior governments (federal and provincial), landowners and citizen groups. Available on-line from srmwww.gov.bc.ca/sei/index.html

Environmental Stewardship and Complete Communities: A Report on Municipal Environmental Initiatives in British Columbia 1999
Deborah Curran. 1999. Eco-Research Chair, Environmental Law and Policy, University of Victoria.

> This report describes a selection of urban sustainability initiatives by local governments across British Columbia, including tools used to protect environmentally sensitive areas and create parks and greenways.

Programs for Land-Based Habitat Conservation in B.C.: A Report to the CRD Roundtable Sub-Committee on Land-Based Habitat
Nitya Harris. 2001. Report prepared for the Capital Regional District Roundtable on the Environment.

> This report outlines the initiatives, targets, programs and policies for the protection and conservation of land-based habitat implemented by local governments within and outside the Capital Regional District. Issues examined included areas of remnant natural terrestrial ecosystems, status of endangered plants, and population trends of bird species. Available on-line at www.crd.bc.ca/rte/habitrpt.pdf

4.4 Tools for Federal and Provincial Governments

Senior governments – the provincial and federal governments – also have powers that can be used to protect natural areas in the Capital Region.

4.4.1 Federal Laws and Regulations

Federal laws that can help to protect natural areas include the following.

4.4.1.1 *Species at Risk Act*

The purposes of the *Species at Risk Act* (SARA) are to prevent Canadian indigenous species, subspecies, and distinct populations from becoming extirpated or extinct, to provide for the recovery of endangered or threatened species, and encourage the management of other species to prevent them from becoming at risk. SARA will provide for the scientific assessment and listing of species, for species recovery, for protection of critical habitat, for compensation, for permits and for enforcement. It will provide protection for the species listed in Schedule 1 to the Act. (This list will be updated on a regular basis.)

SARA) was passed on December 12, 2002. It will not be fully in effect until all related regulations are passed.[2] More information will become available as regulations are fully developed.

In addition, the *Accord for the Protection of Species at Risk* (1996) between the provinces, territories and Canada committed each jurisdiction to "establish complimentary legislation and programs that provide for effective protection of species at risk".

[2] For the most updated information, see http://www.speciesatrisk.gc.ca/

SARA is the federal response to this Accord. However, where provinces do not meet their commitments to the accord, the "safety net" provisions in SARA may apply within areas of provincial and municipal jurisdiction.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4.4.1.2 Canada *Fisheries Act*

The *Fisheries Act* allows for the protection or restoration of productive fish habitat. The federal government will review and authorise (or not) development proposals that have the potential to affect fish habitat. They may require some form of compensation (including the creation of alternative fish habitat) if there is unavoidable destruction of fish habitat.

The *Fisheries Act* also contains provisions to prosecute offenders for unauthorised destruction of fish habitat.

> *Fish habitat is defined as "spawning grounds and nursery, rearing, food supply and migration areas on which fish depend either directly or indirectly in order to carry out their life processes." (Fisheries Act*, s. 34)

4.4.1.3 *Canadian Environmental Assessment Act*

This Act is used for a full-scale assessment of large projects with the potential to affect the environment. (There is also a provincial B.C. *Environmental Assessment Act* with some overlapping responsibilities.)


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4.4.1.4 *Canada Wildlife Act* and *Migratory Birds Convention Act*

The *Canada Wildlife Act* applies to National Wildlife Areas, of which there are currently none in the Capital Region.

The *Migratory Birds Convention Act* applies to Migratory Bird Sanctuaries. There are three in the Capital Region – Esquimalt Lagoon, Victoria Harbour and Shoal Harbour. The Act primarily covers restrictions on hunting, and avoiding the disturbance or destruction of migratory birds' nests, eggs or shelters.

4.4.2 Provincial Laws and Regulations

Provincial laws that can help to protect natural areas include the following.

4.4.2.1 *Local Government Act*

The *Local Government Act* gives a wide variety of powers to local governments, including the powers to create Official Community Plans and Regional Growth Strategies, both discussed above.

4.4.2.2 Islands Trust Act

The *Islands Trust Act* gives local governments in the Islands Trust Areas a special mandate to preserve and protect the unique environment and amenities of the Islands Trust Area. The Act recognises the provincial significance of the Trust Area, and indicates that the provincial government will cooperate with others to protect British Columbia's coastal islands.

The Islands Trust includes the Islands Trust Fund; a land trust dedicated to conservation in the Trust Area.

4.4.2.3 *Fish Protection Act*

One of the major impacts of the *Fish Protection Act* is the ability to protect riparian (streamside) vegetation in urban areas. The Streamside Protection Regulation, enacted in January 2001, enables local governments to establish "streamside protection and enhancement areas" in residential, commercial and industrial zones and to identify these areas through their land use plans and regulations. This creates a buffer zone along streams in which the natural vegetation is protected, and no development is allowed.

The purpose of the regulation is

> "to provide protection for the features, functions and conditions that are vital in the natural maintenance of stream health and productivity. These vital features, functions and streamside area conditions are numerous and varied and include such things as sources of large organic debris (fallen trees and tree roots), areas for stream channel migration, vegetative cover to help moderate water temperature, provision of food, nutrients and organic matter to the stream, stream bank stabilization and buffers for streams from excessive silt and surface runoff pollution." (MWLAP 2002c)

This regulation is still being phased in, and has been controversial in some areas. Unless its provisions are changed, it should be fully in place by 2006.

The District of Langford and District of Highlands both have a 30m minimum setback for development in riparian areas, using the recommended setback of the Streamside Protection Regulation (District of Langford Zoning Bylaw subsection 3.16.01).

4.4.2.4 *Wildlife Act*

The *BC Wildlife Act* focuses on designated endangered species and the control of Wildlife Management Areas, of which there are none in this region. However, its provision may be used to protect the nests of eagles, herons, peregrine falcons, osprey, gyrfalcon or burrowing owls.


B. Whittington

4.4.2.5 *Water Act*

The *Water Act* regulates the use of surface water. Notification can be required for works in or around streams.

4.4.3 Standards and Best Management Practices

In addition to legislative powers, the federal and provincial governments provide information in the form of standards and best management practices to which local governments are encouraged to adhere. These include those described in the following sections:

4.4.3.1 Land Development Guidelines for the Protection of Aquatic Habitat

The Land Development Guidelines have been around for over a decade, and provide a number of specific standards and guidelines intended to "protect fish populations and their habitat from the damaging effects of land development activities" (Chillibeck et al. 1992). It includes information on leave strips, erosion and sediment control, instream work, culverts and fish passage mechanisms.

All work in and around streams should meet these guidelines.

4.4.3.2 Best Management Practices for Land Developments

The Ministry of Water, Land and Air Protection (Vancouver Island Regional Office) has documented the Ministry's environmental objectives and recommendations for land development and land management proposals (MWLAP 2001b). This document also specifies requirements where the proposed land development is wholly or partly regulated by provincial legislation.

The document addresses a wide range of best management practices that can be used to protect natural habitats, including:

- habitat management and protection (watercourses, riparian habitat, sensitive ecosystems, rare plants, wildlife habitat);
- mechanisms to protect sensitive habitats;
- work in and around streams;
- fish habitat protection; and
- considerations during construction.

The document includes a variety of specific recommendations such as on setbacks from sensitive ecosystems, buffer areas around nests, etc.

4.4.3.3 Stormwater Guidelines

At first glance, the management of stormwater may seem irrelevant to the protection of natural areas. However, the way we manage stormwater can have huge impacts on stream habitats (water quality and quantity). Further, many scientists are recommending that we retain more natural areas because of their contributions to stormwater management (see Chapter 3: Benefits).

The federal and provincial governments have recently released a document outlining best management practices for stormwater management. *Stormwater Planning: A Guidebook for British Columbia* promotes an integrated approach to stormwater planning that encourages the retention of forest cover and the reduction of impervious surfaces (surfaces such as pavement that do not allow water to pass through).

> *"Objective 7: Limit impervious area to less than 10% of total watershed area.*
> *Objective 8: Retain 65% forest cover across the watershed."*
> *Stormwater Planning: A Guidebook for British Columbia (MWLAP and Environment Canada 2002)*

4.4.4 Additional Information on Regulatory Tools for Senior Governments

Species at Risk Act

For information and updates on the *Species at Risk Act*, see the Environment Canada website www.speciesatrisk.gc.ca/species/index_e.cfm

Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997. Volume 2: Conservation Manual
M. McPhee , P. Ward, J. Kirkby, L. Wolfe, N. Page, K. Dunster, N. Dawe, and I. Nykwist. 2000. Environment Canada, Canadian Wildlife Service Technical Report Series 345.

Section Two, Conservation Tools, describes a variety of regulatory tools available to senior governments (federal and provincial). Available on-line from srmwww.gov.bc.ca/sei/index.html

Land Development Guidelines for the Protection of Aquatic Habitat
B. Chillibeck, G. Chislett and G. Norris. 1992. Fisheries and Oceans Canada and Ministry of Environment, Land and Parks.

Guidelines for the protection of fish and fish habitat during land development activities.

Environmental Objectives, Best Management Practices and Requirements for Land Developments
Ministry of Water, Land and Air Protection. Version 3. March 2001.

This best management practices document sets out the expectations of the Ministry's Vancouver Island regional office for proactive environmental management and protection with respect to land development activities. Available on-line at wlapwww.gov.bc.ca/vir/region_reports.html. Updated versions will be posted from time to time.

Stormwater Planning: A Guidebook for British Columbia
Ministry of Water, Land and Air Protection and Environment Canada. 2002.

The Guidebook presents a framework for effective stormwater management for British Columbia. It provides a comprehensive

understanding of the issues and a framework for implementing an integrated approach to stormwater management. Case study experiences are included.

Provincial legislation
Copies of provincial legislation are available on-line at
www.legis.gov.bc.ca/legislation/index.htm

Federal legislation
Copies of federal legislation are available on-line at
http://laws.justice.gc.ca/en/publaw/index.html

4.5 Incentives for the Protection of Natural Areas

Sometimes natural areas get protected, not because there is a legal requirement to do so, but because there are financial or other incentives to protect these lands. Through the use of economic and other incentives it is sometimes possible to harness the power and motivations of the marketplace to encourage conservation.

Some incentives encourage more development in a less environmentally sensitive area; in return for the protection of a natural area elsewhere (see Clustering, Density Bonusing, Density Transfer and Alternative Development Standards below). These may also bring developers the incentive of lower servicing costs, and speedier approvals because of greater public support.

Some incentives provide economic benefits for landowners who provide for the protection of their property (see Riparian Tax Relief, Assessment Relief and Ecological Gifts).

4.5.1 Encouraging Development in Less Environmentally Sensitive Areas

4.5.1.1 Clustering

The term "clustering" is used where development is concentrated in one part of a land parcel, allowing another part of the site to be protected as greenspace.

Clustering benefits developers by reducing the amount of infrastructure, while allowing the same number of building units. This can reduce the capital cost of subdivision by 10–33%. For example, clustering can

minimise the amount of new road construction – one of the most expensive costs of development – needed to access the lots. There can be similar savings in the construction and maintenance of sewer and water lines, hydro lines, sidewalks, etc. Clustering also reduces the size of area to be cleared and graded.

> *"Cluster development can reduce the need to clear and grade 35 to 60% of the total site area. Since the total cost to clear, grade and install erosion control practices can range up to $5000 per acre, reduced clearing can be a significant cost savings to builders." (Schueler 1995)*

The community benefits both from the retention of greenspace, and lower costs of maintaining the infrastructure (e.g., road maintenance costs) after the development is complete.

The developer can also benefit, as properties sell more easily and at higher prices when there is greenspace nearby (see Chapter 3: Benefits).

> *The Loma Linda subdivision in Langford used clustering to preserve an environmentally sensitive area (ESA). The residents jointly own the ESA through strata title, and a conservation covenant protects the ESA from development in the long term (M. Baldwin, pers. comm.).*

4.5.1.2 Density Bonusing

Density bonusing may also be called an amenity bonus.

Density bonuses allow a developer to increase the density of development (i.e. create additional lots) on a given site, in return for the provision of public amenities. Greenspace is considered a public amenity. For example, on a large parcel of land, the zoning might permit a maximum of 10 residential lots, but the Council might agree to "upzone" the property to allow 12 lots if public parkland and trail corridors are provided and constructed.

The developer benefits from the sale of additional lots, and the community benefits from the public amenity and from increased tax revenues from the increased floor space. This density bonus is voluntary – it may be suggested by a Council but cannot be required.

The amenities do not have to be on the land that is being developed but they must be precisely described. For example, "one extra residential lot

will be permitted if the following is provided: 1 ha of parkland (as shown on Map A) is dedicated and a multi-use trail 1.5 metres wide within a five metre wide corridor between the Road and the Park (as shown on Map B)." Because the park and trail amenities need to be described fairly accurately in the rezoning bylaw, it is vital to have these area and routes identified either in the Official Community Plan or during the conceptual planning process.

It is also possible for the amenity to be provided in cash to be put in a reserve fund for future parkland purchases and physical improvements.

> *The District of Highlands has successfully used the density-bonus provisions of the Local Government Act to acquire almost 1000 hectares of parkland and has over 125 hectares of private land protected by conservation covenants (K. Key, pers. comm.).*

> *In View Royal, one development property has protected four acres of heron nesting habitat through a restrictive covenant. It includes a 'green' buffer around the perimeter with a swath along the waterfront for common use. In return, the development received a density bonus to enlarge the project from 45 to 72 home sites.* [3]

4.5.1.3 Density Transfer

Density transfer means allowing the permitted density from one parcel of land to be transferred to another property. Under the *Local Government Act*, which controls these types of transaction, there are currently no provisions for making this type of deal – but there are no legal restrictions either. It can be a complex arrangement, but has some merits and might be considered under the right circumstances.

Advantages in the transfer of density include: placing roads and home sites in the best areas for groundwater, sewage disposal, views, shared services, driveways etc. and avoiding hazard lands and environmentally sensitive areas. The developer benefits, as the same number of lots can be built, but the servicing costs are lower (because fewer roads, sewers, etc. need to be built). The community benefits from additional greenspace at little or no cost. Policy and mapping for this process should be established in the Official Community Plan.

[3] Background information prepared for the Sensitive Ecosystems Inventory. Unpublished.

Density transfer consists of a sending area (where development might have notable negative impacts or where desired parkland exists) and a receiving area (where development is more suitable). Salt Spring Island has designated "donor" and "receiving" areas for the transfer of development potential. Donor areas include environmentally sensitive areas, watersheds, intact forest lands and other areas requiring protection. A developer is allowed to transfer development potential from the donor area to a receiving area, and the donor site is then covenanted to protect it from future development. The donor developer is compensated by the receiving developer in a private transaction. The transfer is achieved through rezoning both the donor and receiving sites. A 32 hectare park has been obtained this way on Salt Spring Island, and protection of 100 additional hectares has just been completed.

> *"Density transfer works in circumstances where the lot would be difficult or expensive to develop anyway, so often it's to the benefit of the owner to transfer that latent development potential to somewhere else, where there is already infrastructure, less costly to develop." (L. Adams, pers. comm.)*

4.5.1.4 Alternative Development Standards

Alternative Development Standards (ADS) are ways to develop land that "save money, decrease the environmental impacts and make better communities." (van Hausen 2002)

ADS include:

- narrower road standards that use less land for roads – leaving more for habitat protection;
- higher density land uses – clustering of houses, or building up rather than out, again saving land for other purposes such as conservation; and
- the promotion of greenway policies that promote pedestrian/bicycling links and wildlife corridors.

There are an increasing number of examples of the use of ADS in BC, along with compelling sources of information on the cost savings associated with their use.

> *"Using a City of Surrey site for illustrative purposes, a denser development (248 units on 5.6 ha compared to 41 units on 4.3 ha) reduced unit land development and infrastructure costs to $4400 per unit as opposed to $23,500 per unit for standard development." (Ibid.)*

4.5.2 Economic Incentives for Land Protection

4.5.2.1 Riparian Tax Relief

The *Local Government Act* allows for a property tax exemption for a landowner who conserves land along a watercourse or lake. The exemption is voluntary and requires approval by Council through a site-specific bylaw and the registration of a covenant on the riparian land. The exemption applies only to that part of the land that is riparian, not the entire property. The legislation also allows the municipality to require repayment of the taxes that had been exempted (plus interest) if conditions in the bylaw or the covenant are contravened.

> *"[E]ligible riparian property means property that meets all the following requirements:*
>
> *(a) the property must be riparian land;*
>
> *(b) the property must be subject to a covenant under section 219 of the* Land Title Act *that relates to the protection of the property as riparian property;*
>
> *(c) the municipality granting the exemption under this section must be a covenantee in whose favour the covenant referred to in paragraph (b) is made;*
>
> *(d) any other requirements prescribed under subsection (6)."*
>
> [*Local Government Act*, s.941 (1)(b)]

4.5.2.2 Assessment Relief

Some local governments are offering tax relief to landowners who covenant their land, to offset the loss of development potential.

The Islands Trust has succeeded in having special provincial regulations enacted to offer property tax relief to landowners who covenant natural areas for protection. Where landowners have permanently protected eligible natural features on their land, they can receive 65% reduction on property taxes for the protected area. The Natural Area Protection Tax Exemption Program is now (2003) in place as a pilot program in the Gambier Island area, and can be extended to other parts of the Islands Trust Area where there are agreements in place with the applicable Regional District (L. Adams, pers. comm.).

> *The City of Victoria is investigating a tax incentive program for property owners on the Gorge Waterway who restore the shoreline, remove docks, and then register a conservation covenant on the property's title. The City is hoping to do this in partnership with local conservation organisations (B. Sikstrom, pers. comm.)*

4.5.2.3 Ecological Gifts

If a person or corporation donates environmentally sensitive land to an approved government or organisation, they may be eligible for a federal tax credit for the value of the land donated (corporations receive a deduction). Eligible recipients include the federal, provincial or territorial governments, Canadian municipalities, or one of about 136 approved charities.[4]

Ecological gifts are gifts of the full title to a property, or of the value of a conservation covenant attached. Landowners are able to receive federal and provincial tax assistance for donations of environmentally sensitive land and conservation covenants. Unlike other charitable donations, these credits and deductions can be used against up to 100% of annual income. Unused portions of the tax credit or deduction can be carried forward for up to five additional years. The February 2000 federal budget introduced further changes to the *Income Tax Act* that reduced by 50%, the amount that would otherwise be included as income on any capital gains associated with the gift.

> *A private forest company donated a property to the Village of Cumberland on Vancouver Island. Because there were sensitive wetlands on the site, the forest company was able to receive significant tax benefits from this donation (M. Fraser, pers. comm.).*

"Environmentally sensitive lands" include lands designated or protected by government (including lands identified as sensitive ecosystems in the Sensitive Ecosystems Inventory), sites that are deemed to have significant actual or potential ecological value, and natural buffers around sensitive areas such as streams or wetlands. The Ministry of Water, Land and Air Protection and Environment Canada can certify lands as "environmentally sensitive."

As with most tax laws, the provisions are complex and ***legal advice should be sought****.*

[4] For a list of qualified recipients of ecological gifts, see http://www.cws-scf.ec.gc.ca/ecogifts/intro_e.cfm

4.5.3 Additional Information on Incentives

The Smart Growth Guide to Local Government Law and Advocacy.
Linda Nowlan, Chris Rolfe and Kathy Grant. 2001. West Coast Environmental Law.

> A comprehensive guide to local government planning processes, with a view to promoting 'smart growth', including the protection of green space in communities. Available from Smart Growth BC, www.smartgrowth.bc.ca

Density Bonus Provisions of the Municipal Act: A Guide and Model Bylaw
Ministry of Municipal Affairs and Housing. 1997.

> A guide to density bonuses, including a model zoning bylaw amendment with a provision for density bonusing.

Leading Edges: Alternative Development Standards in British Columbia Municipalities
Michael von Hausen with Bryce Gauthier. 2002. Real Estate Foundation of British Columbia and The Land Centre.

> A look at alternative development standards in use in some British Columbia municipalities, the value of this approach and some of the barriers to implementing ADS.

Green Space and Growth: Conserving Natural Areas in B.C. Communities
Calvin Sandborn. 1996. Prepared for the Commission on Resources and Environment, Wildlife Habitat Canada, Fisheries and Oceans Canada and Ministry of Municipal Affairs and Housing.

> A research paper that reviews ways to conserve natural areas in urban and rural areas, with suggestions as to how the tools to protect natural areas might be expanded.

Ecological Gifts: Implementing Provisions of the Income Tax Act of Canada
Compiled by Clayton Rubec and Manjit Kerr-Upal. Updated October 18, 2000. Canadian Wildlife Service, Environment Canada, Ottawa, ON.

> A review of the recent changes to the *Income Tax Act* relating to the donation of environmentally sensitive land, and an outline of the

process for certifying ecological gifts, as well as criteria for defining environmentally sensitive lands. For copies contact Environment Canada, ecogifts@ec.gc.ca

Information is also available at http://www.cws-scf.ec.gc.ca/ecogifts/intro_e.cfm

Giving It Away: Tax Implications of Gifts to Protect Private Land
Ann Hillyer and Judy Atkins. 2000. West Coast Environmental Law Research Foundation, Vancouver BC.

A guide for government agencies and conservation organisations about the potential tax benefits and tax liabilities of gifts of land or an interest in the land, where the gift is made for the protection of ecologically significant spaces or environmentally significant features. A guide to the laws, regulations and policies governing tax issues when a landowner donates private land or grants a conservation covenant. Also available at www.wcel.org

Natural Area Protection Tax Exemption Program
More information on this program can be found on the Islands Trust website at www.islandstrust.bc.ca

4.6 Land Acquisition

Sometimes the best way to protect a natural area is for a local government or conservation organisation to purchase the land outright.

Historically, the acquisition and management of natural spaces was left to government, often through the purchase of land as a public park. While this is still an important role, the escalation of land prices and the reduced availability of agencies to purchase lands outright have led to new approaches.

Revisions to provincial legislation over the last decade have meant that local governments and land trusts can work more flexibly and cooperatively with land developers and landowners to acquire lands for the protection of natural areas.

4.6.1 Municipal Acquisition

There are several ways in which a municipality can acquire land for the purposes of protecting natural values:

- Acquisition during **subdivision**;

- **Donation or transfer** of land from a private owner, perhaps using eco-gifting;
- **Direct purchase** from a private owner, perhaps using funds from a park acquisition fund; or
- **Joint purchase** with the help of another level of government or a non-government organisation.

Acquisition can be a useful tool, when:

- Land acquisition is the only option to prevent land development;
- Land acquisition offers the best long term protection of the natural values of the property; or
- The owner is willing to sell at or below a fair market price.

It is important to also consider the long-term use and management of the acquired area, to ensure that natural values are protected in the long term. The area should be managed to ensure that recreational or other uses do not damage ecological features, and it may be necessary to remove or control invasive species that could destroy habitat values.

If the area is created as a municipal park, it may be useful to place a conservation covenant on the property (with a conservation organisation as one of the covenant holders) (see also section 4.7.4: Conservation Covenants). This would prevent a future council deciding the area would be better as a ball field or other type of park use.

4.6.1.1 Park Dedication by Subdivision

When land is subdivided, there can be an opportunity to acquire park land at no cost to the municipality. (This does not apply where fewer than three lots are being created, or where the smallest lot is larger than two hectares.) This option is best suited for small parks within a subdivision, and could be used for acquiring areas with environmentally sensitive features.

The *Local Government Act* (section 941) requires that when land is subdivided, either land or an equivalent payment must be provided for public parkland. The municipality can require the developer to provide up to 5% of the area as park (at no cost) in a location acceptable to the municipality. If there is no suitable park land, the developer may pay the municipality "an amount that equals the market value of the land required for park purposes." (The developer can voluntarily provide more than this—see options under section 4.5.1.2: Density Bonusing.)

It is important to identify critical or desirable areas in the Official Community Plan so that Council and developers know which part of the subdivision is best set aside as park. All too often the 5% represents an undevelopable part of the property, rather than the site with the best ecological or park values.

Where the 'parkland' is taken as a cash value, this money must be placed in a park acquisition fund.

4.6.1.2 Donation of Land

Private landowners may choose to donate their land to the local government, or a non-governmental agency such as a land trust, to ensure the long-term protection of its natural values. This may qualify for a tax credit (see 4.5.2.3: Ecological Gifts). The donated land is often further protected by a conservation covenant to ensure the donor's wishes are carried out.

> *In 2002, the Nature Trust of BC acquired a substantial interest in a 147 hectare parcel of land on Savary Island that contains Western Canada's only intact example of a rare forested dune ecosystem. Acquisition was made possible by a private donation as well as contributions from the Ministry of Water, Land and Air Protection and Environment Canada.* (Nature Trust 2002)

The donation may be an outright gift (with no conditions attached), or a conditional donation (specifying what happens to the land if the conditions are not met). The donor may also retain a Life Estate, specifying that the land will be donated to a conservation organisation or local government, but retaining the right for the landowner (and sometimes the landowner's children) to live out their lives on the land. On their death, title of the land will transfer to the recipient.

> *An older couple wanted to donate their land – which included undisturbed Garry oak habitat – as a nature appreciation park. They gave their land to the municipality on two conditions. First, they could remain in their home for as long as they lived. Second, the land was protected by a conservation covenant (held by the Nature Conservancy of Canada) (Cited in Harrington 1999).*

Land may also be donated or returned to the provincial Crown. The Ministry of Water, Land and Air Protection recommends that this mechanism be used to protect streams, wetlands and riparian areas, bird nest trees and other environmentally sensitive lands (MWLAP 2001b).

4.6.1.3 Direct Purchase and Park Acquisition Funds

Buying land can be expensive. Its value is typically based on an appraisal that values the land at its 'highest and best' use and the existing zoning of the land (often residential) is considered.

Some local governments have created a park acquisition fund that allows them to place funds received from density bonuses, donations, development cost charges, and other sources. This allows them to respond quickly to opportunities to purchase lands for park as they arise.

Municipalities should have a plan in place (for example in the Official Community Plan or in a Park Master Plan) that identifies park acquisition priorities so that competition for the funds does not create conflicts.

> *Part of the purchase price for a 16 ha park in the City of Colwood came from a contribution to the municipality's park acquisition fund that had been made by a nearby development (S. Lawrence, pers. comm.).*

Funding for parks acquisition can come from directed property taxes. The CRD's Parks Acquisition Fund is derived from household assessments, and the District of Langford's trail system is being developed through an average annual property tax surcharge. Both these levies were publicly supported by referenda. Other municipalities could hold similar referenda to support parks acquisition.

> *In 2000, the CRD Board created a Parks Land Acquisition Fund for the purchase of high priority additions to the regional park system. The fund is based on an annual levy of $10 per average household assessment over ten years (2000 to 2009). In the first two years of the Fund, CRD Parks expanded regional parkland by 1608 hectares through six purchases (CRD 2002).*

4.6.1.4 Joint Purchase with Another Government or a Non-Government Organisation

Often, a municipality or a non-governmental organisation may jointly purchase a property with the help of another level of government, and/or a land trust organisation (see also section 4.6.3: Acquisition by Conservation Organisations).

> *The District of Saanich has a partnership with The Land Conservancy of BC (TLC) to acquire an addition to Christmas Hill.*

The District provided an interest free loan to TLC to purchase the property. TLC is raising the funds necessary to repay the loan, and will transfer the land to the District. This means the District will acquire the land for the cost of the interest (The Land Conservancy 2003).

The Galiano Conservancy Association (GCA), the Islands Trust Fund, and Habitat Acquisition Trust (HAT) initiated the purchase of Laughlin Lake in 1999. HAT's environmental expertise helped to document numerous listed species which resulted in the site being deemed environmentally sensitive which in turn levered funds from the federal government's Georgia Basin Ecosystem Initiative to complete the purchase in 2003.

On occasion, the Province may make Crown land available to municipalities for park purposes. Park lands may also be transferred between agencies to rationalise park management.

4.6.2 Acquisition by Federal or Provincial Government

Lands may also be purchased directly by the provincial and/or federal governments.

In June 2001, CRD Parks and Environment Canada purchased 5.8 hectares of land on the east slope of Mill Hill Regional Park. In addition, the owner of the property donated 2.09 hectares to CRD Parks for regional park purposes. The total area acquired was 7.89 hectares (CRD 2001).

4.6.3 Acquisition by Conservation Organisations

More than ever before, a variety of conservation organisations are readily available to dispense information, education and expertise on natural features and green spaces. If a community or an organisation determines that a certain property contains ecologically valuable land, the organisation can work with willing municipalities and landowners to protect or acquire that property.

All or part of a property may be purchased by a land trust or other conservation group. Ecologically significant lands can be purchased in partnerships with local governments, businesses or community organisations. Commitments by municipalities towards a portion of the cost can significantly assist non-profit land trusts/community conservation organisations to seek donations and raise funds from the general public and other sources such as private foundations.

The conservation organisation may elect to retain ownership of the property following acquisition, or it may turn land over to a municipality or other agency. The land is usually placed under a conservation covenant to ensure its long-term protection.

> *The Nature Conservancy of Canada (NCC) has purchased a 12 ha Garry oak preserve near Duncan. The property was under threat of development but after tremendous community support, $150,000 was raised by the Elkington/Garry Oak Committee and the Cowichan Community Land Trust Society. The federal and provincial governments and Shell Canada also contributed to the purchase costs. NCC is continuing to raise funds for site restoration and conservation (Nature Conservancy of Canada 2002).*
>
> *The Land Conservancy (TLC) has embarked on a campaign called "Ours Forever" to raise funds to support the acquisition of sites in the Capital Region.*[5]

4.6.4 Acquisition of a Partial Interest in the Land

Sometimes it is not necessary to acquire the whole parcel of land in order to protect natural values.

4.6.4.1 Easements and Statutory Rights-of-Way

Trail access or wildlife movement corridors across private land can be secured through the granting of an 'easement' or statutory right-of-way under the *Land Title Act* (section 218). Statutory rights-of-way are granted only to governments, and may be donated or purchased. A right-of-way can be negotiated with property owners even if they are not subdividing their land (with the landowner's consent). An easement or statutory right-of-way may be acquired as park at a later time.

This approach provides a less-expensive alternative to acquisition of an entire property.

[5] For more information, see http://www.conservancy.bc.ca/

4.6.4.2 Profits à Prendre

A *profit à prendre* is a right to enter land owned by someone else and take something off the land. Although it is not very commonly used, a *profit à prendre* has potential to help preserve natural areas because a landowner wanting to protect the old growth timber on his or her property, for example, could grant a *profit à prendre* to a conservation group with respect to that timber. The conservation organisation would have the exclusive right to decide whether and what trees would be cut or not cut. (Usually the conservation organisation will decide not to cut trees, or only in a selective manner, thus preserving the natural area.)

A *profit à prendre* can last indefinitely. If an owner grants a *profit à prendre* to a conservation organisation and then sells the property, the new owner will still have to abide by the terms of the *profit à prendre*.

4.6.5 Additional Information on Land Acquisition

Green Space and Growth: Conserving Natural Areas in B.C. Communities
Calvin Sandborn. 1996. Prepared for the Commission on Resources and Environment, Wildlife Habitat Canada, Fisheries and Oceans Canada and Ministry of Municipal Affairs and Housing.

> A research paper that reviews ways to conserve natural areas in urban and rural areas, with suggestions as to how the tools to protect natural areas might be expanded.

Ecological Gifts: Implementing Provisions of the Income Tax Act of Canada
Compiled by Clayton Rubec and Manjit Kerr-Upal. Updated October 18, 2000. Canadian Wildlife Service, Environment Canada, Ottawa.

> A review of the recent changes to the Income Tax Act relating to the donation of environmentally sensitive land, and an outline of the process for certifying ecological gifts, as well as criteria for defining environmentally sensitive lands. For copies contact Environment Canada, ecogifts@ec.gc.ca

Giving It Away: Tax Implications of Gifts to Protect Private Land
Hillyer, Ann and Judy Atkins. 2000. West Coast Environmental Law Research Foundation, Vancouver, BC.

A guide for government agencies and conservation organisations about the potential tax benefits and tax liabilities of gifts of land or an interest in the land, where the gift is made for the protection of ecologically significant spaces or environmentally significant features. A guide to the laws, regulations and policies governing tax issues when a landowner donates private land or grants a conservation covenant. Also available at www.wcel.org

Stewardship Options: A Guide for Private Landowners in British Columbia
Penn, B. 1996. Ministry of Environment, Lands and Parks, British Columbia.

A publication for private landowners who want to protect and maintain wildlife habitat on their property. Part of the Stewardship series of publications. Available on-line at www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp

Conservation contacts for land trusts and other conservation organisations can be found through:
Land Trust Alliance of British Columbia, http://landtrustalliance.bc.ca
Connecting for Conservation, www.conservationconnection.bc.ca/

4.7 Landowner Actions

Many individual property owners are interested in protecting natural values on their land. This applies to people who put a hummingbird feeder on their apartment balcony or plant flowers to attract butterflies to backyards, as well as to large lot landowners who protect whole wetlands or forest areas on their property.

The sum of these individual actions can do a great deal to protect the biodiversity of the Capital Region, because so many natural areas have already been lost.

Landowners who wish to conserve the natural values of their property have several options:

- Retain ownership, and manage the land themselves (see 4.7.1: Landowner Stewardship and Naturescaping);
- Retain ownership, but involve others in the conservation and maintenance of the area. This may involve an informal agreement (see 4.7.2.1: Short-term Stewardship Agreements) or a more formal legal option (see 4.7.2.2: Conservation Covenants); or

- Transfer ownership of all or part of the property to a government or conservation organisation (see section 4.6.1.2: Donations above).

4.7.1 Landowner Stewardship and Naturescaping

Stewardship of land is simply using it and maintaining it in a way that does not diminish the natural features of the property. The concept of land stewardship does not exclude the development of land or economic benefits, but seeks to incorporate a variety of land uses with sound ecological practices.

There are many opportunities for individual citizens, organisations and businesses to protect natural features on their private property. Even a backyard can be maintained to make an ecological contribution.

> *"Restoration of wildlife habitat happens gradually, one yard at a time. Each private outdoor space is unique, each is important, and each is potentially part of a much larger network of private and public greenspace." Naturescape British Columbia (Campbell and Pincott 1995)*

"Naturescaping" means using plant species that are native to the area, and/or species that will provide food and shelter for birds, insects, butterflies and other local wildlife. This helps to preserve biodiversity. The advantages of using native species are that they are adapted to local conditions, and once established need less watering, and little or no use of pesticides or herbicides. By reducing lawns and manicured gardens and replacing them with natural ecosystems, communities can reduce the human labour and financial costs associated with managing conventional urban landscapes.

> *In North America the area dedicated to exotic lawn cover in residential properties is approximately 83,000 square kilometres. North American residential lawns receive approximately four times the pesticides and herbicides per hectare as agricultural crops do (Ingram 1999).*

The Naturescape British Columbia program provides information to landowners and homeowners on ways to protect and enhance the natural values of their property.

4.7.2 Short-term Stewardship Agreements

Some landowners may want outside assistance with the conservation of their land, without making a long-term commitment. There are several options.

4.7.2.1 Handshake Agreements

A handshake agreement is a verbal commitment between a landowner and a conservation organisation to protect or manage the land in certain ways. For example, a conservation organisation may agree to remove invasive plants from a wetland on a regular basis.

4.7.2.2 Management Agreements

This could include a simple written contact to manage the land in a certain way. This type of agreement is not binding on future landowners, and may include a time-limit for the agreement.

> *"Mr. T. has a marsh on his ranch that both he and Muskrats Forever, a national conservation organisation protecting wetlands, are interested in conserving for wildlife habitat. Together they draw up a written agreement that states Mr. T. cannot drain the marsh for pasture or let the cattle graze by it. In return for limiting his use of the land, Muskrats Forever agrees to look after the marsh and fence it from his cattle." (Fictional example* in *Penn 1996)*


B. Whittington

4.7.3 Leases and Licences

A landowner may enter a lease or licensing arrangement part with a conservation organisation, in return for an annual rent or licence fee.

> *"Mr. and Mrs. R. inherited a large property that encompassed extensive nesting grounds of sandhill cranes… They contacted the…Sandhill Crane Foundation, and negotiated a lease that allowed the Foundation to enter and care for the property and cranes in return for an annual rent that covered the owners' taxes." (Ibid.)*

These voluntary agreements are usually renewable, but are not binding on future owners of the land. Voluntary agreements are a good option for a landowner who is unsure about entering a more formal, long-term conservation covenant. Just getting to the point of a verbal agreement usually entails a discussion of the valuable natural features that exist, and that education can further enhance the private stewardship that has been maintained in the past.

4.7.4 Conservation Covenants

Note: Conservation covenants, provided for under the Land Title Act *(s. 219), are quite different from restrictive covenants.*

Conservation covenants are long-term agreements that can conserve all, or a portion, of a property. The landowner retains ownership of their property but agrees to protect or manage the land in certain ways that respect and protect various natural features. The conservation covenant also conveys certain specifically-identified rights and responsibilities (such as the right to an annual inspection) to a land conservation organisation or a public agency.

The covenants are binding on subsequent owners of the land on which they are registered. Under certain circumstances, there may be tax benefits to the landowner.

Agencies eligible to hold conservation covenants include local governments or a registered conservation organisation such as a land trust. In the Capital Region, land trusts such as Habitat Acquisition Trust, Nature Conservancy of Canada, The Land Conservancy and the Islands Trust Fund all hold conservation covenants. Many covenants are a three-way agreement between the landowner, the local government and a conservation organisation as this provides the best long-term protection and the best use of resources to manage and monitor the land.

> *Habitat Acquisition Trust holds covenants on many properties in the Capital Region, including Ayum Creek in Sooke, Matthews Point on Galiano Island, the Whitney-Griffiths property in Metchosin, and the Bailin property in North Saanich.*

An organisation holding the conservation covenant is responsible for monitoring compliance with the terms of the agreement, and has the right to enforce the restrictions under provincial or territorial laws and to require restoration should the terms be broken.

Conservation covenants may be used to protect public as well as private lands.

Conservation covenants are complex legal documents and ***legal advice should be sought****.*

4.7.5 Landowner Contact Programs

Landowners are often unaware of the ecological values of their property. Conservation organisations may initiate a landowner contact program to let people know about environmentally sensitive areas on their property, and to provide information on how to protect and manage their areas.

> *The Cowichan Community Land Trust has an ongoing program to contact landowners in the Cowichan Valley who have lands that have been identified as part of the Sensitive Ecosystem Inventory. The success of this has generated an interest among landowners which has led some to place voluntary conservation covenants on their property (Cowichan Community Land Trust).*[6]

The key to success with landowner contact is building a relationship based on respect, understanding, and trust. Most landowners appreciate the effort made to inform them about the ecological values of their property – whether or not they opt to participate in a program. They must be respected for their actions, whatever they decide.

> *Habitat Acquisition Trust is working on the "Good Neighbours" project, undertaking direct landowner contact in six areas: Esquimalt Lagoon, Mount Douglas Park, Oak Haven Park, Uplands Park, Swan Lake/Christmas Hill and Highrock Cairn Park. The landowner contact specialists are educating property owners about the significance of the adjacent sensitive areas, offering resource materials and support as required, and encouraging them to consider voluntary stewardship options (Habitat Acquisition Trust, 2003).*[7]

4.7.6 Additional Information on Landowner Actions

Naturescape British Columbia: Caring for Wildlife Habitat at Home
S. Campbell, 1975. Naturescape British Columbia.

> A series of publications that provide detailed information on the benefits of "naturescaping" and the species to use. Part of the Stewardship series of publications. Available on-line at www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp

[6] For more information, see http://www.island.net/~cclt
[7] For more information, contact Habitat Acquisition Trust or go to http://www.hat.bc.ca

Stewardship Options: A Guide for Private Landowners in British Columbia
Briony Penn. 1996. Ministry of Environment, Lands and Parks, British Columbia.

A publication for private landowners who want to protect and maintain wildlife habitat on their property. Part of the Stewardship series of publications. Available on-line at www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp

Greening Your Title: A Guide to Best Practices for Conservation Covenants
Ann Hillyer, and J. Atkins. 2000. West Coast Environmental Law.

A guide to the best practices associated with the use of conservation covenants, with a focus on their use for the protection of ecologically significant private land. Available from West Coast Environmental Law, www.wcel.org

Giving It Away: Tax Implications of Gifts to Protect Private Land
Ann Hillyer and Judy Atkins. 2000. West Coast Environmental Law Research Foundation, Vancouver B.C.

A guide for government agencies and conservation organisations about the potential tax benefits and tax liabilities of gifts of land or an interest in the land, where the gift is made for the protection of ecologically significant spaces or environmentally significant features. A guide to the laws, regulations and policies governing tax issues when a landowner donates private land or grants a conservation covenant. Available at www.wcel.org

Here Today, Here Tomorrow: Legal Tools for the Voluntary Protection of Private Land in British Columbia
Barbara Findlay and Ann Hillyer. 1994. West Coast Environmental Law Association.

A report written for conservation groups, individual landowners, real estate professionals and other interested parties looking for information about the legal tools available to conserve private land. Available at www.wcel.org

Leaving a Living Legacy: Using Conservation Covenants in B.C.
William J. Andrews and David Loukidelis. 1996. West Coast Environmental Research Foundation.

A comprehensive look at the use of conservation covenants. Available at www.wcel.org

Landowner Contact Guide
Theresa Duynstee. 1997. Ministry of Environment, Lands and Parks & Environment Canada, British Columbia.

A guidebook for individuals and community groups interested in promoting stewardship with private landowners. It describes a systematic approach designed to provide landowners with information about ecological values and stewardship practices, and how to help landowners to maintain the natural features of the land. Part of the Stewardship series of publications. Available on-line at www.stewardshipcentre.bc.ca/sc_bc/stew_series/bc_stewseries.asp

Green Legacies: A Donor's Guide for B.C.
Habitat Conservation Trust Fund, Stewardship Centre for B.C. 2002. Part of the Stewardship Series of documents.

A compendium of tax, legal and administrative implications for people interested in donating land or cash for conservation. Available on-line at www.stewardshipcentre.bc.ca/green_legacies_web/index.asp

On the Ground: A Volunteer's Guide to Monitoring Stewardship Agreements
Land Trust Alliance of BC, BC Stewardship Centre. 2002.

This step-by-step manual leads volunteers and staff through the stages of developing Stewardship Agreements, outlining the various kinds of legal agreements including Conservation Covenants.

Brochures from the Land Trust Alliance of British Columbia
A series of brochures on various aspects of land conservation, including:

- Preserving Natural and Cultural Features of Land with a Conservation Covenant;
- Your Land Conservation Options; and
- Tax Benefits of your Conservation Donation.

Available from the Land Trust Alliance of British Columbia, http://landtrustalliance.bc.ca/

Giving the Land a Voice: Mapping our Home Places
Sheila Harrington, editor. 1999.

Chapter 8 (by Bill Turner) provides many examples of how individual landowners can protect the natural values on their property.

Decision Support Tool for Invasive Species in Garry Oak and Associated Ecosystems
Murray, C. and R.K. Jones. 2002. Prepared by ESSA Technologies Ltd. for the Garry Oak Ecosystems Recovery Team. Victoria, BC. 56pp.
http://www.goert.ca/docs/goe_dst.pdf
(1.5MB)

This decision support tool (not a decision making tool) will help you make decisions regarding whether, and how, to manage invasive species in Garry oak and associated ecosystems (GOEs) in BC. It will provide you with guidance regarding the identification of an invasive species problem and management options for dealing with its control, and point to other sources of information that may help.

Towards a Decision Support Tool to Address Invasive Species in Garry Oak & Associated Ecosystems in B.C.
Murray, C., and C. Pinkham**.** 2002. Prepared by ESSA Technologies Ltd., Victoria, B.C. for the GOERT Invasive Species Steering Committee, Victoria, BC. 96pp. http://www.goert.ca/docs/GOEDSTreport.pdf
(1MB)

This report comprises the first step towards the development of a decision support tool for invasive species management. It includes chapters on

- Review of Current Status of Decision Support Tools for Invasive Species in BC;
- Gaps in Decision Support Tools/Methodologies;
- Decision Support Framework; and
- Top Ten GOE-Threatening Exotic Plant Species.

5. Conclusion

There are many agencies, organisations and individuals working hard to protect natural areas in the Capital Region. Many areas have already been set aside as natural parks or covenanted lands.

But much more remains to be done. As an individual, there are many things that YOU can do:

- Find out about natural areas in your municipality (see section 4.1: Inventory);
- Find out about the efforts of conservation organisations in your area (find them through the Conservation Connection website: (www.conservationconnection.bc.ca)
- Support efforts by local governments and land trust organisations to protect natural areas;
- Share this manual with a friend, so that they can learn more.

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." (Margaret Mead, anthropologist)

6. References

American Forests. 1998. Regional Ecosystem Analysis Puget Sound Metropolitan Area: Calculating the Value of Nature. Final Report: 7/25/98. Washington, DC.

American Forests. 2002a. www.americanforests.org/graytogreen/air/

American Forests. 2002b. National Urban Tree deficit. www.americanforests.org/graytogreen/treedeficit/

BC Species Explorer. 2002. srmwww.gov.bc.ca/atrisk/

Beauchesne, S.M,. and J.M. Cooper. 2002. Draft COSEWIC status report on Streaked Horned Lark *Eremophila alpestris strigata*. Comm. Status of Endangered Wildl. in Can., Ottawa, ON.

Burton, B. 2002. Infrastructure Innovation: Root Barrier Design. PIBC News, April 2002.

Campbell Goodall Traynor Consultants Ltd. 2000. Regional Growth Strategy Options Survey, Report of the Random Survey. www.crd.bc.ca/regplan/RGS/Choices/pdf/random2.pdf

Campbell, S. and S. Pincott. 1995. Naturescape British Columbia, Provincial Guide. B.C. Ministry of Environment, Lands and Parks, Victoria, BC.

Canada Fisheries Act, Section 34(1).

Canadian Wildlife Service. 2002. Hinterlands Who's Who: The Benefits of Wildlife. www.cws-scf.ec.gc.ca/hww-fap/benefits/benefits.html

Capital Regional District. 2003 August. Bylaw 2592. A Bylaw to Adopt a Regional Growth Strategy for the Capital Regional District. www.crd.bc.ca/regplan/rgs/reports/2003_rgs_bylaw.pdf

Capital Regional District. 2003. Comprehensive Community Plan for Willis Point, Bylaw No. 1. www.crd.bc.ca/bylaws/landusejuandefu_1/index.htm

Capital Regional District Land Acquisition Information. 2001. www.crd.bc.ca/parks/pdf/Acq02.pdf

Capital Regional District Media Release, February 15, 2002. www.crd.bc.ca/media/aquisition.htm

Capital Regional District Parks and Provincial Capital Commission. 1997. Regional Green/Blue Spaces Strategy. Victoria, BC.

Capital Regional District Parks. 2000a. 2000 Annual Report. www.crd.bc.ca

Capital Regional District Parks. 2000b. CRD Parks Master Plan. Victoria, BC.

Capital Regional District Regional Growth Strategy website. 2002. www.crd.bc.ca/regplan/RGS/.

Center for Watershed Protection. 1996. *In* Schueler, T. 1996. The Economics of Watershed Protection. Ellicott City, MD. Cited on www.pipeline.com/~mrrunoff/EconW.htm.

Chillibeck, B., G. Chislett and G. Norris. 1992. Land Development Guidelines for the Protection of Aquatic Habitat. Fish. and Oceans Can. and B.C. Minist. Environ., Lands and Parks. Vancouver, BC.

Conservation Data Centre (CDC). 2000. Extinct and Extirpated Species. Wildlife at Risk in British Columbia fact sheet. B.C. Minist. Environ., Lands and Parks. Victoria, BC. 2pp.

Costanza, R., R. d'Arge, R. de Groot, S.Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R. V. O'Neill, J. Paruelo, R. Raskin, P. Sutton, and M. van den Belt. 1997. The value of the world's ecosystem services and natural capital. Nature 387:253-260.

Cowichan Community Land Trust. http://www.island.net/~cclt Duncan, BC.

CRD Roundtable on the Environment, 2000. CRD Environmental Trends. www.crd.bc.ca/envtrend/default.html

CRD Roundtable on the Environment. 2003a. Rare and Fragile. Sensitive Ecosystems in Parks: A State of Environment Indicator for the Capital Regional District. Brochure. For more information see www.crd.bc.ca/rte

CRD Roundtable on the Environment. 2003b. Through the Cracks: An Impervious Surfaces Indicator for the Capital Regional District. Brochure. www.crd.bc.ca/rte

Curran, D. 2001. Economic Benefits of Natural Green Space Protection. Paper prepared for the POLIS project on Ecological Governance and Smart Growth British Columbia, May 2001 [quoting US National Parks Service study]. Victoria, BC.

Daley, G., and K. Ellison. 2002. The New Economy of Nature *in* Green Business News, June 2002.

District of Highlands. 1997. Official Community Plan. Highlands, BC. www.highlands.bc.ca/municipal_office/Municipal_Docs/Municipal_Bylaws/076-100/094_ocp.pdf

District of Langford. 1999. A Guide for Preparing Development Permits for Environmentally Sensitive and Hazardous Areas. Brochure. Langford, BC.

District of Langford. 2002. www.district.langford.bc.ca/newsarticle.asp?TopicID=16

District of Langford Zoning Bylaw, subsection 3.16.01.

Environment Canada. 2000. The Importance of Nature to Canadians: The

Economic Significance of Nature-related Activities. Ottawa, ON.

Esquimalt Lagoon Stewardship Initiative. 2002. Esquimalt Lagoon Stewardship Initiative. Brochure. Victoria, BC. www.veheap.crd.bc.ca/elsi/publications/elsi_brochure.pdf

Fraser River Action Plan. 1997. Wild, Threatened, Endangered, and Lost Streams of the Lower Fraser Valley: Summary Report. Fish. and Oceans Can.

Fuchs, M.A. 2001. Towards a Recovery Strategy for Garry Oak and Associated Ecosystems in Canada: Ecological Assessment and Literature Review. Tech. Rep. EC/GB-00-030. Environ. Can., Can. Wildl. Serv., Pacific and Yukon Region, Delta, BC.

Garry Oak Ecosystems Recovery Team. 2002. Recovery Strategy for Garry Oak and Associated Ecosystems and their Associated Species at Risk in Canada, 2001-2006. Draft 20 Feb 2002. Garry Oak Ecosystems Recovery Team, Victoria, BC.

Garry Oak Ecosystems Recovery Team. 2003a. Invasive Species in Garry Oak and Associated Ecosystems in British Columbia. Garry Oak Ecosystems Recovery Team, Victoria, BC.(field manual)

Garry Oak Ecosystems Recovery Team. 2003b. Species at Risk in Garry Oak and Associated Ecosystems in British Columbia. Garry Oak Ecosystems Recovery Team, Victoria, BC.(field manual)

Gore, A. 1992. Former U.S. Vice-President, quoted *in* Earth in the Balance, Houghton Mifflin Publishers, Boston, MA.

Harrington, S., ed. 1999. Giving the Land a Voice: Mapping Our Home Places. Land Trust Alliance of BC. Saltspring Island, BC.

Harris, N.C. 2001. Programs for land-based habitat conservation in B.C.: A Report to the CRD Roundtable Subcommittee on Land Based Habitat. www.crd.bc.ca/rte/habitrpt.pdf

Helvoigt, T. 1999. Oregon In-Migration Survey. Oregon Employment Department. Chapter 3: Quality of Life. Salem. OR.

Ingram, J. 1999. When Cities Grow Wild - Natural Landscaping from an Urban Planning Perspective. Wild Ones ─ Natural Landscapers, Ltd. www.for-wild.org/whenciti/ingram-21.htm

International Society of Arboriculture. 1995. Benefits of Trees. Brochure. Champaign, IL.

Kingsmill, S. 1993. Pollinators in Peril. Nat. Can., Spring 1993.

Kirkby, K. 1993. Wetlands not Wastelands. Scenic America Tech. Info. Ser. 1(5).

Land Title Act, s. 85(3).

Land Title Act, section 219.

Lea, E.C. 2002. Historical Garry Oak Ecosystems of Greater Victoria and

Saanich Peninsula. 1:20,000 Map. Terr. Info. Branch, B.C. Minist. Sustainable Resour. Manage. Victoria, BC. www.goert.ca/reference/oak_map.html

Local Government Act, s. 343.1 (1).

Local Government Act, s. 875(1)

Local Government Act, s. 941 (1)(b).

Martin, P. 2001. Speech to the National Round Table on the Environment and the Economy. Federal Minister of Finance, May 2001. www.fin.gc.ca/news01/01-053e.html

McPhee, M., P. Ward, J. Kirkby, L. Wolfe, N. Page, K. Dunster, N. Dawe, and I. Nykwist. 2000. Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands, 1993-1997. Volume 2: Conservation Manual. Can. Wildl. Serv., Pacific and Yukon Region, Delta, BC. Tech. Rep. Ser. No. 345.

Ministry of Environment, Lands and Parks. 1998. Wildlife Trees in the Urban Environment. Brochure. Victoria, BC.

Ministry of Water, Land and Air Protection (MWLAP). 2001a. Economic Benefits of British Columbia's Provincial Parks. Victoria, BC.

Ministry of Water, Land and Air Protection (MWLAP). 2001b. Environmental Objectives, Best Management Practices and Requirements for Land Developments. Version 3, March 2001. wlapwww.gov.bc.ca/vir/pa/bmp_dev.pdf

Ministry of Water, Land and Air Protection (MWLAP). 2001c. Painting Community Green. Draft. B.C. Minist. Water, Land and Air Protection, Victoria, BC.

Ministry of Water, Land and Air Protection (MWLAP). 2002a. Audit of Selected Polygons of the Sensitive Ecosystems Inventory of East Vancouver Island and Gulf Islands, 1999—2001. Victoria, BC. wlapwww.gov.bc.ca/vir/region_reports.htm

Ministry of Water, Land and Air Protection (MWLAP). 2002b. Environmental Trends. wlapwww.gov.bc.ca/soerpt/2risk/speciesglance.html

Ministry of Water, Land and Air Protection (MWLAP). 2002c. Website wlapwww.gov.bc.ca/habitat/fish_protection_act/streamside_protection/streamside_protection.html

Ministry of Water, Land and Air Protection and Environment Canada. 2002. Stormwater Management Planning: a Guidebook for British Columbia. Victoria, BC. http://wlapwww.gov.bc.ca/epd/epda/mpp/stormwater/stormwater.pdf

Murray, C. and R.K. Jones. 2002. Decision Support Tool for Invasive Species in Garry Oak and Associated Ecosystems. Prepared by ESSA

Technologies Ltd. for the Garry Oak Ecosystems Recovery Team. Victoria, BC. 56pp. http://www.goert.cadocs/goe_dst.pdf

Murray, C. and C. Pinkham. 2002. Towards a Decision Support Tool to Address Invasive Species in Garry Oak & Associated Ecosystems in B.C. Prepared by ESSA Technologies Ltd., Victoria, B.C. for the GOERT Invasive Species Steering Committee, Victoria, BC. 96pp. http://www.goert.cadocs/GOEDSTreport.pdf

National Association of Homebuilders, 1986. Cost Effective Site Planning—Single Family Development. Washington, DC.

National Tree Community Foundation. 1992. Tree Plan Canada. Brochure. National Tree Foundation and Forestry Canada, Ottawa, ON.

Nature Conservancy of Canada website. 2002. Catalogue of BC Properties, www.natureconservancy.ca

North American Commission for Environmental Cooperation (NACEC). 2002. The North American Mosaic: A State of Environment Report. www.cec.org/soe

Penn, B. 1996. Fictional example of a management agreement *in* Stewardship Options: A Guide for Private Landowners in British Columbia. Saltspring Island, BC.

Petit, J. 1998. Building Greener Neighborhoods: Trees as Part of the Plan. Quoted *in* Curran, D. 2001. Economic Benefits of Natural Green Space Protection. Paper prepared for the POLIS project on Ecological Governance and Smart Growth British Columbia, May 2001. Victoria, BC.

Quayle, M., and Hamilton, S. 1999. Corridors of Green and Gold: Impacts of Riparian Suburban Greenways on Property Values. Dep. Fish. and Oceans Can. Univ. B.C., Vancouver, BC.

Reid, A. 2000. Environics Fall 2000; Environics August 2000; Environics September 2000. http://erg.environics.net/news/

Reiten, R., Portland General Corporation. 1990. Quoted *in* Sandborn, C., 1996. Green Space and Growth: Conserving Natural Areas in B.C. Communities.

Sandborn, C. 1996. Green Space and Growth: Conserving Natural Areas in BC Communities. BC Commission on Resources and Environment. Wildlife Habitat Canada, Fisheries and Oceans Canada, Ministry of Municipal Affairs, Victoria, BC.

Sandor, R. 2002. Quoted *in* Daly, G. and Ellison, K. The New Economy of Nature. Green Business News, June 2002.

Schueler, T. 1995. Site Planning for Urban Stream Protection. Center for Watershed Protection, Metropolitan Washington Council of Governments, Ellicot City, MD.

Schueler, T. 1996. The Economics of Watershed Protection. Center for Watershed Protection. Ellicot City, MD.

The Land Conservancy of British Columbia. 2003. http://tlc.bounceme.net/regioncontent.php?sectionid=123&regionack=VI

Tourism Victoria. 2000. Exit Survey. Victoria, BC.

Tourism Victoria. 2002. http://www.islands.bc.ca/outdoor/frwildlife.htm

Town of View Royal. 2000. Greenways Masterplan, Draft Report. Victoria, BC.

Vancouver Island and Gulf Islands Travel and Business Guide. 2002. http://aabode.com/victoria/bird.html

Vancouver Island Technology Park website. 2002. www.vitp.ca/Features/place.asp

von Hausen, M. 2002. Leading Edges: Alternative Development Standards in British Columbia Municipalities. The Land Centre, Surrey, BC.

Ward, P., G. Radcliffe, J. Kirkby, J. Illingworth, and C. Cadrin. 1998. Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993-1997. Volume 1: Methodology, Ecological Descriptions and Results. Environ. Can. Can. Wildl. Serv., Pacific and Yukon Reg., Delta, BC. Tech Rep. Ser. No. 320.

Warrick, B., and T. Alexander, 1997. Looking for Hometown America. Urban Land, 27-29. *In* Curran, D. 2001. Economic Benefits of Natural Green Space Protection. POLIS project on Ecological Governance and Smart Growth British Columbia, May 2001. Victoria, BC.

Wildlife Habitat Enhancement Council. 1992. The Economic Benefit of Wildlife Habitat Enhancement on Corporate Lands. Silver Spring, MD.

Willis Point Community Plan. 2002. www.crd.bc.ca/JdeFea/ocp/willis/3027byl.htm

Winston, M. 2000. Green economics: double benefit. Vancouver Sun, December 11, 2000, citing study by the US National Research Council, Nature and Human Society: Quest for a Sustainable World.

Personal Communications

Adams, L. Islands Trust. 2003.

Baldwin, M. Planner, District of Langford. 2003.

Cooper-Marcus, Dr. C. University of California Berkeley. 1996.

Fraser, M. Planner, Village of Cumberland. 2001.

Key, K. District of Highlands. 2002.

Lawrence, S. Planner, City of Colwood. 2003.

Pollard, A. Manager of Environmental Services, District of Saanich. 2003.

Sikstrom, B. Planner, City of Victoria. 2003.

Appendix: The Nature of Decisions: A Guide for Local Government Politicians

Planner Kevin Key of *KeyPlan* prepared this essay on the role of decision-making in local government.

> *"I was a-trembling, because I'd got to decide, forever, betwixt two things, and I knowed it. I studied a minute, sort of holding my breath, and then says to myself: 'All right, then, I'll go to hell.' "*
> *The Adventures of Huckleberry Finn, Mark Twain [1884]*

The environmental costs of continual, incremental development of land for human use in the Vancouver Island/Gulf Islands portions of the Georgia Depression Ecoregion are immense, and can be seen in the existing development in this area. Large areas of land continue to be modified through settlement patterns, which results in loss of wildlife habitat, soil erosion and water contamination. Over 300,000 people will settle on Vancouver Island and the Gulf Islands in the next 20 years, at a time when the entire Georgia Basin population is predicted to grow from 6.6 million to almost 10 million. Development in this region marches on each day like rust, and its cumulative effect is rarely recognised. Decisions about development most often occur in local government: the towns, districts, unincorporated and trust areas near urbanised areas. Local governments have enormous responsibilities regarding land use, and their decisions can have significant environmental effects—all too often negative—particularly on a cumulative and regional scale.

With so many checks and balances in local government, and with such an array of planning tools, how could inappropriate developments occur? They occur because of an array of factors:

- the tradition of privacy and respect for private property in our culture supports a landowner's right to sell, alter or develop their property;
- local government has limited resources to encourage a conservation ethic in these owners;
- in the absence of a conservation ethic, landowners are less willing and/or less able to incorporate environmentally sound principles early in the development process;

- senior (federal and provincial) governments have limited resources to support even the minimum requirements to retain these principles;
- locally elected officials perceive risks in imposing new or unfamiliar requirements;
- decisions to extend existing patterns of development are easy to defend on the principles of fairness and equity; and
- the misguided belief that introducing a better design, or denying an inappropriate project, will have a negative local economic impact.

The challenge in the development approval process is to secure the conservation of environmentally sensitive land early on in the project, and to maintain an environmental design principle throughout the project. In order to gain the support for environmental conservation on valuable development land, it is necessary to demonstrate to developers and lenders that ecologically-sensitive design, though apparently more costly, will in fact increase the net value and return on equity of the project over the long term.

By not employing a conservation approach on environmentally sensitive land, we risk the loss of habitat and greenspace as well as the fragmentation of the ecosystem in these locations.

Types of Decision

During the course of a three-year mandate in local government, an elected official will make approximately 4000 decisions—small and large—related to governance. They range from taking a position on an issue in a telephone call with a constituent, to giving staff comments or suggestions on a project, to voting on a major resolution such as a budget or an Official Community Plan (OCP). There are three classes of formal decisions:

1. **Administrative** decisions are those that affect the running of your organisation or involve direct dealings with a firm, contractor, etc. They do not usually involve the interests of an individual resident, taxpayer, or landowner, and are not subject to the requirements of openness and consultation that obligate other types of decisions.
2. **Legislative** decisions are those that have a direct effect on a wide range of parties jurisdiction-wide. These decisions require procedural fairness, and the courts have struck decisions that fail to uphold such fairness.

3. **Quasi-judicial** decisions can have a direct effect—positive or negative—on an individual, firm or property or other defined group. Again, procedural fairness is required and it is here where the perception of such fairness must be demonstrated.

Implications of Decisions

During the design and debate of the various elements of a project much is focused on the implications or after-effects of a particular decision, and whether or not the intended effects will occur. No approval process is without conjecture and exaggeration. Ideally though, the best approach to a project or issue is to initially introduce and apply available science into the processes and discussions. Otherwise, such information must be introduced to settle a contentious decision later in a process, particularly if strong positions and opinions have developed in the absence of scientific input. Using current scientific thought and available site information from the beginning assists in setting a tone for a process that will later incorporate more qualitative information and opinions.

One notable effect on the implication of a decision comes with the change of decision-makers at elections. While the new decision-makers may have been part of the initial process for decision-making, they may not have agreed with all of the components of a decision established by their predecessors. They may believe that their mandate requires changes to the original decision. For example, with a set of decisions, such as in an OCP, the change may be justified, but if the policy rationale and the structure of the OCP does not reflect this, other components of the OCP may suffer—especially those closely integrated to the component under change—, and the entire plan may be diminished as a result.

Elections bring on the ultimate accountability of decisions made (and not made). Incumbent decision-makers must speak to their track records as well as their promises, as do collective decision-making bodies. But as a result of the democratic process, these track records can be interpreted in many ways. For a variety of reasons, the environmental accountability of decision-makers is not always easily tracked. The involvement of many individuals in the implementation of a decision can alter its outcome, and there are many complex factors that determine environmental success or failure.

The BC Sprawl Report (2001) by Smart Growth BC looks at broad indicators to demonstrate the implications of many decisions. The report examined six local governments in three regional districts to search for

the undesirable (and sometimes unintended) effects of poorly developed settlements. One effect is habitat destruction, though the authors note that the extent of historical destruction has not been effectively documented and monitored. An obvious challenge is the observation that small decisions can cumulatively create problems.

Your Support Network for Effective Decision-making

The following is a brief overview of the elements that contribute towards effective decisions.

Staff and Advisors

Your staff is an extremely important component of your support both before and after a decision is made. It is their professional responsibility to research all sorts of relevant background information for the decision-maker to consider. The decision-maker then takes time to contemplate this information, as well as having one-on one conversations with various participants. Staff must also be capable of interpreting the work of other professionals for the decision-maker. This research involves…

Staff must also present a range of options for a decision and explain the implications of each. In some circumstances, an extreme or absurd option may be shown in order to reinforce the superior quality of a recommended option or to better understand all the options presented. It is inappropriate for a decision-maker to criticize this approach, and it is entirely inappropriate to discourage or limit the presentation of any option.

At a 1995 workshop sponsored by Union of BC Municipalities (UBCM) for decision-makers on Vancouver Island, participants reported that most development applications received by their councils or boards supplied only background information and a recommendation. Requests by staff for major decisions almost never addressed the economic, environmental, or social implications of a potential decision.

A complete Request for Decision to a decision-maker should address the following:

- *Background*: A description of the history of the issue and a chronology of events, particularly those related to decision making.
- *Issue*: A focus on the immediate decision to be made, as well as subsequent decisions. It is critical to separate the two steps.

- *Policy*: Is there an existing policy, written or not, that shapes or limits the range of possible decisions? Is there rationale within the policy to support and defend a decision? Are these policies adequate and current? Does this particular request for decision require a new policy?
- *Desired Outcome*: What would be the best result of a decision in the short term (related to the immediate issue), as well as in the long term?
- *Options*: A list of decision options with immediate outcomes (follow-up actions such as press releases or updating priorities).
- *Implications*: A comparison of implications in each of the options that details the expected effects of the decision (short and long term), organisational effects (change in policy, staffing, etc.), or financial effects (budgeting, etc.).

Regardless of the options presented and the preferred or recommended option provided, staff members are obligated to accept the decision and to work diligently to implement it. A decision-maker who voted contrary to the ultimate decision must also maintain the same spirit of support. It is always the responsibility of the decision-maker to openly articulate the rationale for a decision, especially when the decision differs from that recommended by staff, in order that its implementation can be understood and fully supported.

The following is a sample outline of the distinctive roles between staff and decision-makers:

Staff Role	**Decision-Maker Role**
Provide advice	Provide leadership
Implement directives, decisions and policy	Set political direction
Provide quality information and alternatives	Make decisions by choosing between alternatives
Avoid politics	Avoid administrivia
Assist in conflict resolution	Reconcile political/constituent conflict
Provide public information	Communicate with constituents

Advisors for decision-makers can exist in many forms, depending on the nature of the organisation. They can form an on-going committee or a time-limited task-force. They are an extremely important resource to

decision-makers. Advisors can be a source of experienced, talented volunteers providing valuable work at little cost, or they can represent a focus group for the rest of your constituents. Participating in an advisory group is the best way for a future decision-maker to become familiar with process and group dynamics.

There are weaknesses in all advisory systems, but the most common flaw in environmental decision-making is asking your group to comment on a project without clearly giving guidance on what to address. Another problem occurs when volunteer environmental advisors are asked to comment on detailed and technical reports, particularly where no qualified staff is available for guidance.

Public Consultation

Much has been written elsewhere on approaches to consultation. The days of "Decide, Inform and Defend" as *modus operandi* is long gone. One excellent reference document on the subject is the *Public Involvement Program Manual of the City of North Vancouver's Engineering Department* (April, 1994). This manual emphasises the importance of choosing the appropriate methods for public involvement. When, how and to whom you inform, educate, canvass, revisit, and confirm must be clearly thought through. Some elements of this process need to be fixed firm for certainty and anticipation; others need the flexibility to be acted upon as a process unfolds so that precise consultation can be applied effectively.

With the all the public empowerment and involvement that occurs in decision-making—particularly at the local government level—there is the risk that bad decision-making can develop if too much dependence is placed on this one aspect. This occurs when a decision is based on the prevailing mood of those who participated in the consultation exercise, and where the goal is to make an "acceptable" decision rather than an "excellent" decision.

With any consultation exercise, there is first the obligation to educate participants about the process. Otherwise, the decision-makers can be reduced to mere poll-takers. Local knowledge offers extremely valuable environmental information to decision-makers, their staff, and advisors. Residents who live in an area can contribute extensive longitudinal observations as they witness the nights and days, seasons and the storms.

Priorities

Not all agencies use an overarching system to frame long-range planning and operations. For most decision-makers, it is highly useful to establish a

set number of projects that will benefit from a higher level of attention and resources. The exercise of corporate priority setting determines whole classes of decisions, often by deferring some decisions so that others can be dealt with in a timelier manner. This might occur, for example, if there is a gap in environmental information and land-use decisions need to be deferred until the information is obtained and decisions can be made with more confidence. Most organisations cannot meet all the demands for their services, funding, etc. In this situation, a priority list helps define what an agency is working on in a way that preserves funds, time, and other resources for the most urgent projects. A common misunderstanding with priority-setting is that it can appear that lower priority items are less important. They are not; they are simply less urgent.

The program at its simplest need only list the name of the priority, prerequisites (funding, partners, seasonality, etc.), key milestones, and expected outcomes or products. It is also useful to have a secondary or "B" list of priorities in waiting, and it is always essential to revisit the priorities on a regular basis. When initially establishing priorities, a group of decision-makers may hold a retreat to examine, discuss, and weigh priorities; however, recent open-meeting legislation may require that these meetings be conducted in public forum.

Processes

Something as simple as the process leading to a decision—the road map—frequently causes conflict when a participant is unclear on the process. Sometimes staff are unfamiliar with a new or innovative tool. Perhaps a decision-maker is unclear on the steps of an existing tool or technique that is seldom used. An applicant may wish they had not initiated a specific process once they discover what it entails. They may be unfamiliar with the industry-specific language of the process and the agency, and occasionally may mistakenly liken it to other approval processes such as that for a driver's license or passport.

Any of this can lead to confusion—and delays—in the process, and confusion can create the perception that decisions have been predetermined or that only part of the process has been used to reach a predetermined decision. Decisions can be challenged in court when an agency does not apply its own formal standards in a fair and impartial manner.

A simple but valuable technique is to establish a custom written set of steps that must or may occur leading up to decisions. There may be a

standard or typical description of steps in a generic guide that can determine if a particular process deviates from norm. Care must always be taken to clearly articulate the purpose of the written set of steps so that confusion over expectations or commitments doesn't arise. The following is an example of a suitable explanatory note:

> *Note: this document is only an example of a process that may occur. Variations to the _____ process after application are common. The document does not give an applicant the right to _____ approval if the process is followed. Council reserves its right to not proceed with any approval at any time during the process.*

The authority for processes is usually established by legislation and is tailored to the jurisdiction by local regulations such as a procedural bylaw. Weaknesses occur if the procedure was poorly drafted (even incorrect grammar can create loopholes), if it includes an item that gives unauthorised powers to the decision-maker (a common flaw is the delegation of some follow-up decision to another person or agency), and if it is outdated as a result of revised legislation or subsequent case law.

It is the responsibility of staff to advise the decision-maker on the flexibility and limitations of a decision-making process, not only for efficiency and for fairness, but also to ensure the defensibility of a decision.

One challenge facing decision-makers, particularly in detailed projects that require multiple decisions, but even existing in simple, yes/no decisions, is the need to communicate to an applicant that some revisions to their application would improve its chance of acceptance. A prudent applicant will closely monitor the process by attending meetings and reading reports and minutes, etc., as a way of gauging the support of various stakeholders (who may be very vocal on their suggestions for project revision!). The decision-makers input to the application can be a great source of innovation because they have the big picture in mind, and ultimately the decision-maker must balance all factors when making the decision.

"Fettering discretion" is a term to describe an action—verbal or written—that bargains away a decision-maker's powers through the agreement to make a decision before the appropriate time to do so. A decision-maker must remain open-minded to all advice and information until the time of decision; they may still carry, and even reveal, a bias or preference, but they must not allow themselves to "[prejudge] the matter to be decided to

the extent of no longer being capable of persuasion" [*Save Richmond Farmland Society* v. *Richmond* (1990), 2 M.P.L.R. (2d) 288 (S.C.C.)].

However, the courts have begun to recognise the hazards and inefficiencies of muzzling decision-makers until moments before a decision is made.

Process Schedule

Despite the establishment and regular revision of internal priorities, many of the project-oriented processes undertaken by local government are externally driven. Many factors cause these projects to be initiated: market timing, personal desires, corporate and estate needs, etc. A local government may have some control in creating or limiting project opportunities through, for example, the adoption of an OCP. But often the government receives several major rezoning applications simultaneously, all of which may have a profound effect on decision-makers and their communities. The ensuing bottlenecks are particularly acute when there are limitations on application processing because of staff and volunteer time and resources, because of the timing of public consultation seasons (spring and fall), and because of competing priorities.

In these situations, the organisation must systematically manage the impact of application processes, which can be achieved by the scheduling of application processing to be accepted and examined without compromising due process, fairness, or other priorities.

A Development Process Schedule (see sample in the following table) is most applicable to large residential greenfield developments that propose land alteration and construction immediately after rezoning and subdivision approvals. This type and scale of development typically has the potential for significant impacts. Adopted as a policy, a Development Process Schedule creates an ordered method of application, community awareness and involvement, examination, decision and development. The workloads of decision-makers, their staff, and advisors could be better balanced if major events in the application processes could be forecast. It would also maximise the seasonality of specific process components (public consultation, environmental assessments, construction, etc.).

Table: Sample Development Process Schedule

August	**Applicant consultation** with staff; familiarization with **documents** (OCP, Zoning, Subdivision Servicing Bylaws, environmental information), and **processes** (municipal organization, key contacts, process schedule, meetings, applicant obligations, amenity offers, etc.).
September	**Site surveying**: identification of major landscape features (boundaries, watercourses, trails, etc.) and placement of reference markers on site.
October	Rezoning **application** submitted with **preliminary reports** as needed (environmental, parks, roads, ground water, drainage, fire hazard, amenity offer), and a **conceptual design** showing desired land uses and density. Revision or refinement to OCP EPA mapping is provided.
October	Application and staff **report** submitted to decision-makers for initial consideration. Referral of application to Advisory Committees and other agencies. Decision-makers, Staff and Volunteers **inspect** site.
November	Applicant **meetings and presentations** to Advisory Committees and Staff. Potential **public meeting** sponsored by applicant. Advisory Committee and Staff **reports** submitted to Decision-makers for consideration.
December	Decision-makers' consideration of **1st reading** of proposed bylaws, which are referred to relevant agencies for comment and recommendation.
January	Potential **impacts** of drainage, erosion, landslip, windfall are investigated and reported.
February	Commencement of **bio-inventory** which identifies sensitive environments, wildlife habitat, and rare or threatened species.
March	On-site **sewage disposal testing** (percolation tests and soils analysis). **Preliminary reports** are amended (if necessary) and submitted.
April	**Bio-inventory report** is submitted. **Conceptual design** is amended as necessary and is submitted showing sensitive areas, parkland dedications, road and trail corridors, and approximate locations for dwelling unit sites and driveways. Potential **public meeting** sponsored by applicant.
May	**Reports and conceptual design** submitted to decision-makers, who give a 2nd **reading** to the proposed bylaws and sets a date for a public hearing.

June **Public Hearing**. Decision-makers' amendment of proposed bylaws (if required) and **bylaw adoption**.

June **Subdivision proposal** submitted with required reports (ground water, drainage, environmental assessment) and plans. Proposal referred to agencies for comment. Preliminary subdivision approval issued by Approving Officer.

June **Development Permit application** (if any) and staff report submitted to Decision-makers for issuance.

June Detailed parcel, park and roadway surveying. **Tree Cutting Permit applications** submitted for driveways & dwelling unit sites. Road and driveway clearing and building.

July **Road building** involving stream crossings, if any. Submission of **Subdivision Application** for final examination by Approving Officer.

The intent of the policy should be that the schedule has flexibility. Variations in exercising the policy would require reasonable justification and must not conflict with the intent of the policy. There are several types of applications that need not follow the schedule completely. For example, those that propose a legitimisation or alteration of an existing use or those that involve a relatively small area of land could follow an altered schedule.

The Development Process Schedule would be a policy followed by decision-makers and staff, and it would be strongly recommended to applicants. It could not take the form of a bylaw that directly regulated applicants. The *Local Government Act* requires that the decision-makers shall consider all applications that require approval. Staff cannot pre-screen the applications in order to deny them. Decision-makers do, however, have the ability to deny or table an application based on inappropriate timing or insufficient information. An application can also be denied if the applicant significantly delays the process by neglecting to provide required information. Although there is no legislation that creates deadline limitations for consideration (as there is with subdivision approvals), the courts may look dimly on any proposal that was not afforded due process.

Policies and Regulations

Decisions may be partially pre-made by policies that have been established in anticipation of the decision. When designed and interpreted correctly, policies give great certainty to all participants on the desired outcome of an application or other decision. The OCP is the most comprehensive expression of public policy and affects decision-makers and staff in their day-to-day operations. For non-profit organisations, their constitution may create the framework for their decision-related policies.

There are a variety of ways in which plans or policies are created. Such creation is distinguished by two main elements; one is the source of the need for the policy (e.g., proactive or reactive, response to opportunity or to crisis), and the other is the focus of the process. Regarding the latter element, there are two paths in which to take: a problem-solving approach or a vision-based approach.

The problem-solving approach might be characterised as fixing the squeaky wheel. A problem arises and the immediate reaction is to create a remedy. This approach has a practical appeal to those suffering from the problem, particularly if a commitment is made to arrive at a remedy in a timely manner. Moreover, the solution is likely to undergo a good test of feasibility if it is anticipated that it will be put into action immediately after the process.

There are several challenges in this policy-creation approach. Such a process may be unable to address larger, systemic problems because of its concentrated focus on treating the apparent symptoms at the expense of a thorough examination. The end-product may be diminished because the orientation of this approach is with the past rather than the future.

A vision-based approach is directed to the future and is distinguished by the relatively unconstrained pursuit of establishing what a decision-maker or community wants to achieve without first knowing *how* to achieve it. This approach is distinguished by the *anticipation* of future obstacles and the desire for a more comprehensive end-product that articulates integrated results. One limitation of the visionary approach is maintaining the integrity of the policy as it passes from one political mandate to another. Two challenges during the visioning process are having the discipline to produce practical prescriptions for implementation as well as tempering unrealistically high expectations.

Both challenges require careful management in order to recognise the voids between the vision and both current and expected realities. This is

particularly important in local government visioning exercises that are highly dependent on complex external forces that may be influenced by provincial, national, or even international factors.
Regardless of the approach, any policy-making exercise must never focus so narrowly that the problem it purports to solve or the vision it seeks to create also generates undesirable but foreseeable by-products.

The key pillar of policy-making is the obligation to create a policy within our legislative means. Do we have the power to do this? And if we do not have the power, should we take steps to acquire it? Without the ability to defend our policy—particularly if it undergoes court scrutiny—the whole exercise can become worthless, wasting resources and dashing expectations.

Another aspect of policy-making that has emerged over the last several decades is the question of whether a particular agency should even embark into a policy area. Perhaps another agency, sector of the economy, or part of society is the more appropriate body for initiating the desired change. This question has been addressed through public-private partnerships, joint ownership of lands and covenants, shared resources in management, and the rise of the volunteer and non-profit sectors.

One common method of policy-making is comparative analysis, which usually amounts to a survey of comparable practices in surrounding or similarly structured areas. This can be a great convenience in beginning to shape new policy because the best pre-existing format and practices can be chosen from which to customise your own. Comparative analysis can also be used to demonstrate to those hesitant to embark on a new policy course that it has successfully functioned in another jurisdiction. However, it is the obligation of the policy-makers to properly compare policies, which entails not just the cursory review of the policy, bylaw, etc., but an examination into the context and culture in which the comparable policy was adopted, the situation in which it is implemented, and the actual effectiveness of the implementation.

Much has been written elsewhere on policy-crafting, but regarding local decisions related to environmental issues, one notable weakness of policy-use stands out. With such a fast rate of change in legislation and case law, with responsive public opinion and consultation, with new and innovative tools, and with ever-advancing scientific technique and technology, a policy can become out of date and ineffective quite quickly. It is imperative to review policies on a timely basis. In the spirit of Huck

Finn, we would be wise to remember that "if it ain't broke, don't wait 'til it is."