



Resilient Saanich FACTSHEET #5

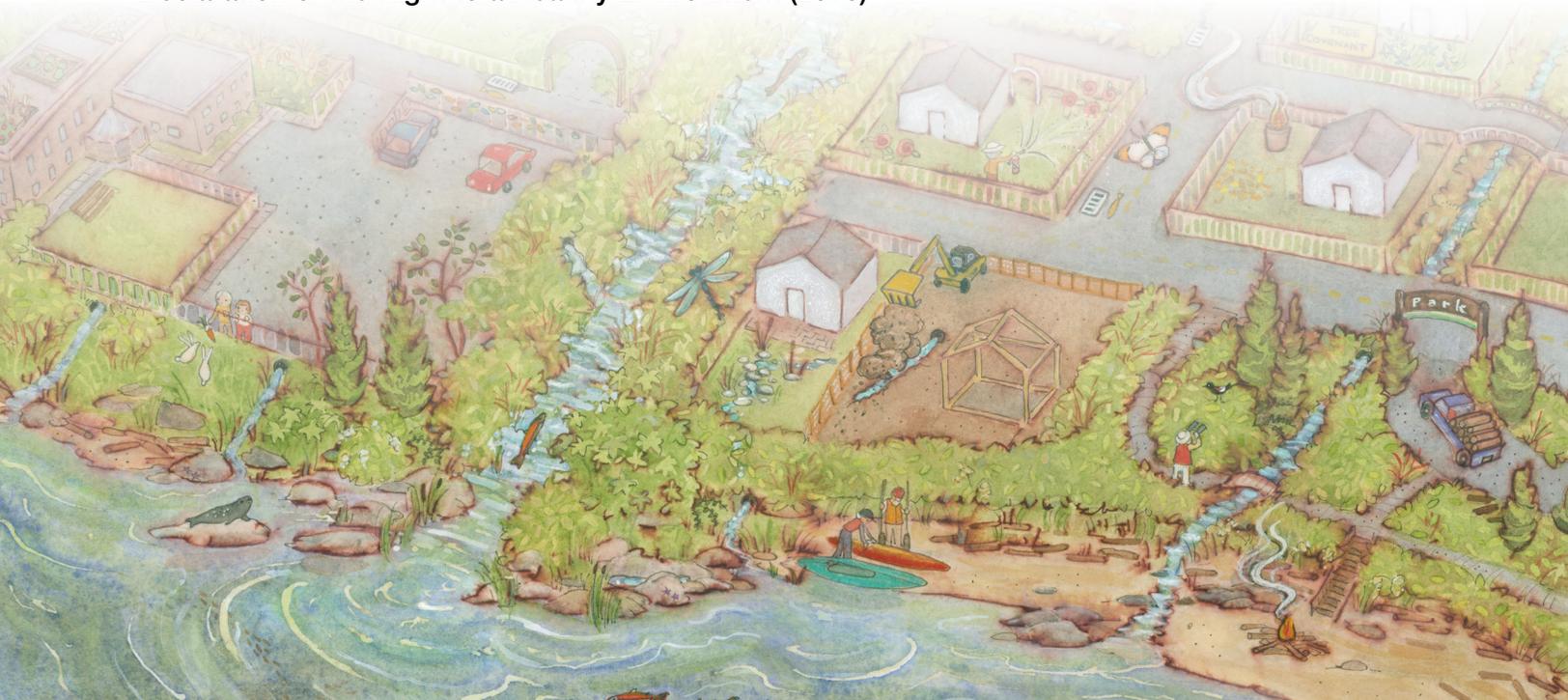
Biodiversity Related Saanich Reports



The District has a variety of past Saanich reports and documents previously produced that may be helpful for setting goals, objectives and criteria in the “Resilient Saanich” process. The following summarizes key documents and their findings. Some of these documents are very large in format, which makes them difficult to reproduce in a readable format (for sharing). Others include links for those interested in reviewing in more details.

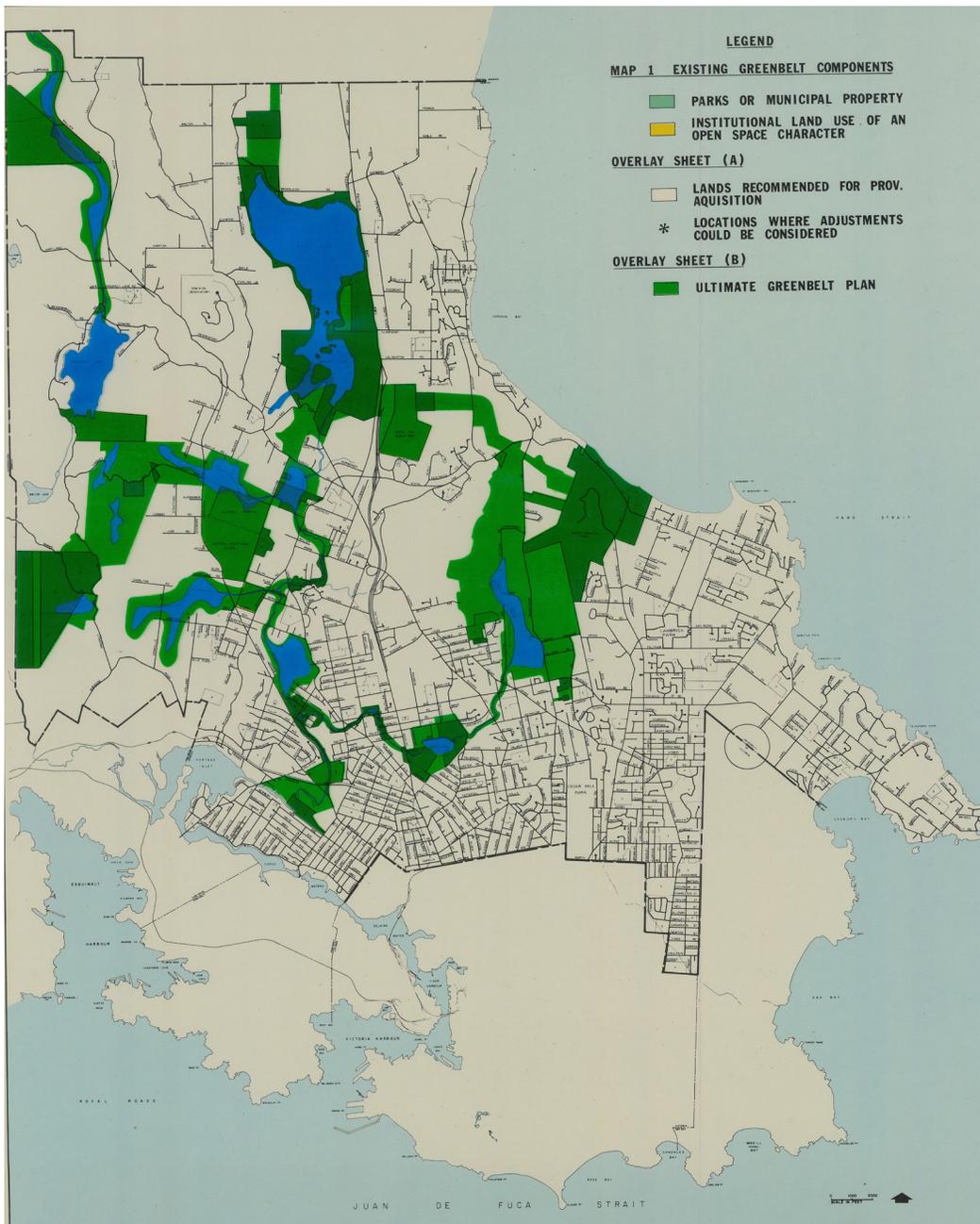
Past reports & documents summarized include:

- **The Corporation of the District of Saanich Greenbelt Proposal (1972)**
- **Landscape and Habitat Survey: A Bio-Physical Inventory and Evaluation for Potential Land Usage in Saanich Municipality (1976)**
- **Recommended Environmental Policy Guidelines & Suggested Actions for the Municipality of Saanich, Healthy Saanich 2000 (1991)**
- **Land Protection Analysis (1977)**
- **Saanich Green/Blue Spaces: A Framework for Action (2000)**
- **Review of Saanich Marine Shoreline Resources & Options for Protection (2002)**
- **Declaration of the Right to a Healthy Environment (2015)**



The Corporation of the District of Saanich Greenbelt Proposal (Saanich Planning, 1972)

This proposal was prepared under the provisions of the “Greenbelt Protection Fund Act” enabled by the Province of British Columbia in 1963. Its purpose was to propose the acquisition, through provincial funds, of 1865 acres of fee simple land to protect a rural greenbelt around Saanich as shown in the following map:





Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



The progressive steps that led to this proposal in 1972 included:

- Creation of the Urban Containment Area (UCA) around Saanich in 1963
- Establishment of a minimum lot size for subdivision outside the UCA of 1.6 acres
- Establishment of a minimum lot size of 10 acres around Prospect Lake
- Increase of the minimum lot size for subdivision to 5 acres outside the UCA in 1968
- Adoption of a Deposit of Fill Bylaw for Saanich (1971)
- Active acquisition of park lands by Saanich since 1960

Saanich Council felt that action was needed in 1972 to protect the following land types:

- Floodplains
- Shorelines
- Steep slopes
- Wetlands
- Mineral deposits
- Fertile agricultural soils
- Natural areas
- Recreation areas

Functions of a Greenbelt

1. Preserve green space for managed resource production areas (agriculture, fisheries, mineral production)
2. Preserve green space for natural and man-made resources (wildlife habitats, wildlife refuge, geological features, historic and cultural sites)
3. Preserve green space for health and well-being (recreation, corridor travel and trails, open space and amenities, air quality)
4. Preserve space for public safety (floodplains, steep slopes, airplane flight paths)
5. Preserve space for institutional use (cemeteries, schools, hospitals)

Means of Land Protection for a Greenbelt

Other than fee simple purchase, the following were proposed to acquire these lands for greenbelt purposes:

- Regional park expansion
- Provincial Government support (financial or legislative)
- Land dedication by the development community
- Location of institutional lands within the greenbelt
- Stimulation of private gifts of land

If fee simple purchase was used, the following alternatives for land status were considered:

- Purchase of lands and lease back for long-term agricultural use
- Purchase of lands by Province of BC, who sell back to owners but retain development rights
- Purchase of lands and granting of life tenancy
- Creation of conservation easements
- Leasing of land under conservation easements
- Negotiations of first right of refusal on future sale of lands

The Greenbelt Proposal report contains two overlay maps:

- Lands proposed for acquisition by Province of BC
- Map of all greenbelt lands proposed for protection

Landscape and Habitat Survey: A Bio-Physical Inventory and Evaluation for Potential Land Usage in Saanich Municipality (Saanich Planning, 1976)

This summary report was the first of its kind to provide a detailed bio-physical analysis of the land base in Saanich and was conducted to assist Planning Department staff in making land use policy decisions in the face of increasing development pressures. Its structure of analysis, database and recommendations are still relevant to the current development pressures facing the municipality.

Methodology

The analysis methods were based on synthesizing the existing land use information with an evaluation of the landscape status and recommendations for preferred land uses. These preferred land uses were based on physical (not economic) parameters. Three related studies were also used:

- *Design with Nature* (Ian McHarg, 1969), a guide to land use analysis which pre-dates the use of Geographical Information Systems (GIS)
- *Inventory of Land Resources and Resource Potentials* (BC Land Inventory, 1973)
- An Ecological Evaluation of Land Suitability for Urban Development in the Southern Portion of the Highlands District (1975)

A four-step study methodology was used:

- Literature review
- Compilation of physical/biological base maps (scale of 1:400)
- Compilation of conservation, recreation and development evaluative maps (scale of 1:1200)
- Preparation of three-map overlay summary portraying preferred land uses in Saanich (scale of 1:1200)

The final summary map overlays each have a five-unit subjective key, representing the ability or suitability of the land to support one of the three evaluated land uses: conservation, recreation and development. The whole District is displayed on a single map (at 1:1200 scale) which allows for ease of political decision-making by Council. A separate Landscape and Habitat Survey Atlas displays all the resource analysis in a series of maps.

Physical and Biological Characteristics of District of Saanich

Analysis of the physical characteristics of Saanich included review of:

- Geological and geomorphological information
- Topography
- Soils and soil stratigraphy
- Glacial processes

Analysis of biological characteristics of Saanich included review of:

- Vegetation communities
- Wildlife habitats and wildlife surveys



Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



Conservation Land Use

The aim of this analysis was to identify critical areas to protect based on vegetation and wildlife values. Areas were zoned on a scale of 1-5 based on the following criteria:

Zone I: Highest conservation category

- Areas with exceptionally fine examples of each natural vegetation community
- Areas with exceptionally high vegetation diversity
- Sites of special scientific interest
- Relatively undisturbed lakeshores and wetlands
- River channels plus buffer zones
- Certain flood plain areas
- Critical wildlife areas for migration, nesting and wintering
- Areas of exceptionally high wildlife diversity
- Wildlife corridors
- Seacoast

Zone II:

- Good examples of natural vegetation communities (with some disturbance)
- Areas with high vegetation diversity
- Sites of scientific interest
- Disturbed lakeshores and wetlands
- River flood plains
- Actual and/or potential migration, nesting or wintering habitats
- Areas of relatively high wildlife diversity (including agricultural land)
- Wildlife corridors

Zone III:

- Areas of disturbed natural vegetation
- Highly disturbed lakeshores
- Areas with natural vegetation providing habitat for wildlife species
- Agricultural land with diversity of hedgerows, relict woodlands and ponds
- Areas with low density residential development or close to urban development

Zone IV:

- Areas of highly disturbed natural vegetation
- Areas with too little natural vegetation to provide habitat for wildlife species
- Agricultural land with low diversity of hedgerows and relict woodlands
- Areas close to urban development or with low density residential development that contain natural vegetation
- Areas extensively manicured, containing alien species

Zone V:

- Areas of little or no natural vegetation
- Areas with low wildlife diversity
- Agricultural land, mainly monocultures, with no hedgerows
- Conservation areas severely hampered by urban development



Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



Recreation Land Use

The aim of this analysis was to examine types of recreation activities that are closely linked to the physical capabilities of the landscape. It summarizes the supply of recreation resources and areas, without analysis of the current demand for recreation. Areas were again zoned on a scale of 1-5 based on the following characteristics:

Zone I: Highest recreation category

- Areas that can sustain a wide range of recreation activities
- Areas that provide exceptional opportunity for a few activities
- Areas of fine vegetation that lend themselves to passive recreation
- Areas with exceptional panoramic views over surrounding landscape

Zone II:

- Areas with good recreation potential
- Areas that can only sustain low intensity recreation use
- Areas with mixed vegetation communities
- Areas with less spectacular panoramic views

Zone III:

- Areas of disturbed natural vegetation
- Areas of attractive agricultural land close to urban areas

Zone IV:

- Areas of low feature diversity or disturbed vegetation
- Areas of low density residential development

Zone V:

- Areas with highly disturbed sites
- Areas with urban development

Development Land Use

Information on physical parameters of land areas (depth to bedrock, surficial material type, slope, etc.) were evaluated for 'development suitability', again zoned on a scale of 1 – 5. Areas that provide headwater storage for the major water systems in Saanich (Colquitz River and Tod Creek) were also mapped.



Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



Land Protection Analysis (Saanich Planning, 1977)

In 1977, an internal review and analysis was completed of the 1976 'Landscape and Habitat Survey Report'. The intention was:

- To evaluate priority areas for protection and preservation (zones I and II conservation and recreation areas mapped in 1976)
- To determine what land protection mechanisms were available to Saanich to protect these lands
- To make recommendations on management of each of these land parcels for conservation and recreation use.

The final report consists of detailed physical information and management recommendations for almost 400 parcels of undeveloped land in Saanich.

Methodology

The 1976 report used quantitative methods to evaluate natural areas and identify priority characteristics (biophysical) for conservation and recreational use. This quantitative information was intended to support land use decision-making processes, which are a subjective process.

The following basic methodology was used for this study, in ten steps:

1. Identification of the types of land use for which land suitability was to be determined
2. Delineation of the study area (Saanich) and establishment of land evaluation units (parcels)
3. Determination of evaluation criteria
4. Development of a scale of values for rating each evaluation criteria
5. Field evaluation of each parcel for each evaluation criteria
6. Determination of the relative weight of each evaluation criteria
7. Mathematical analysis and priority ranking of each land evaluation unit (parcel)
8. Determination of land protection options available
9. Determination of the most viable land management options available
10. Final parcel classification and determination of site specific protection and management recommendations

Rather than summarize in detail the resulting classification system, it is valuable to review the report's recommendations, to determine if they are still relevant in 2020.

Recommendations

1. A moratorium be placed on development of high priority areas until a final decision is made by Council regarding their future status.
2. (a) A conservation zone subdivision proposal would set a minimum lot size of 8 hectares, the minimum size considered adequate to allow protection of the environment in several portions of Saanich.

(b) A hazard areas zoning ordinance be put in place, which would prohibit or strictly regulate building in floodplains, erosion areas, or excessive slopes.



Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



3. An ordinance be created for a new category of Municipal Park entitled "Conservation Park" or "Nature Reserve", to restrict human entry during critical periods for vegetation or wildlife.
4. An ordinance is created to restrict motorbikes (or horses) from areas designated as 'Conservation Parks' or 'Nature Reserves'.
5. Saanich should undertake a long-term (10-25 year) program of land acquisition, in order to achieve a maximum amount of land protection at a reasonable cost to the Municipality.
6. Adopt a 'scenic roadway' designation for rural roads, to preserve their character and rural usage.
7. Publish an informative brochure for use by the public regarding private actions that can be taken to preserve land and its natural features.
8. Investigate the possibility of providing an economic incentive (tax rebates or grants) to encourage protection of agricultural hedgerows and riparian vegetation.
9. Use Federal or Provincial Youth Employment funding to hire summer students for involvement in land management activities such as invasive plant removal or ecological restoration projects.
10. Support the provisions of the Agricultural Land Reserve Act in protecting important agricultural land parcels from development.
11. Monitor the health and condition of the highest value conservation and recreation lands in Saanich on a regular basis.
12. If development occurs in high-priority areas of conservation or recreation value, cluster developments to minimize size of the disturbance.
13. Study all areas within the Urban Containment Boundary area to determine where restrictions on development should be placed, due to priority conservation or recreation values.



Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



Recommended Environmental Policy Guidelines & Suggested Actions for the Municipality of Saanich (Healthy Saanich 2000 Environmental Subcommittee, 1991)

The Environment Subcommittee of Healthy Saanich produced this report in the year 1991, which describes goals, policy guidelines and actions that Council could take to protect the natural environment of Saanich by the year 2000.

Goal

The primary goal recommended for adoption by Saanich Council:
To maintain and promote a healthy environment.

Policy Guidelines

Policy guidelines and recommendations were made in the following areas:

- Biological and ecological considerations
- Physical environment: quality of air, water and soil
- Energy and resource use
- Aesthetic and non-monetary values of the environment
- Transportation
- Food production, agriculture and landscaping
- Solid and liquid waste management
- Education
- Special needs
- Economy and business
- Environmental impact assessment

Direct Actions

The Environment Sub-committee also recommended a series of direct actions for Saanich Council to take for each area of policy, plus direct actions 'to promote a healthy environment':

- Institute a series of prizes to be awarded to individuals and businesses demonstrating a commitment to preserving and maintaining a healthy environment
- Award prizes to individuals or companies who contribute practical, innovative ideas to help maintain and promote a healthy environment
- Establish a staff committee from various municipal departments to develop and monitor environmental strategies and policies
- Establish and advertise a hot line where people can report environmentally detrimental activities observed
- Allocate more staff time for addressing environmental concerns adequately
- Commission a regular environmental audit to determine impacts of all existing municipal policies and practices on the environment
- Establish a Task Force on the environment to further help in developing plans for promotion and protection of a healthy environment
- Keep abreast of the latest environmental news, policies and developments in other municipalities and environmental organizations
- Review and update current municipal bylaws pertaining to water, soil, air and tree protection and native species and habitats, based on Healthy Saanich 2000 policy guidelines
- Develop a coordinated purchasing program for Saanich based on environmental ethics and guidelines
- Ensure that any funds invested by Saanich are being used in environmentally responsible ways



Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



Saanich Green/Blue Spaces: A Framework for Action (Saanich Planning, 2000)

This document consists of a broad vision for a municipal network of protected green and blue spaces. Green/blue spaces are defined as:

“Land and water areas of environmental, scenic, renewable resource, outdoor recreation, greenway and/or social value. Green/blue spaces can include developed, partly developed and undeveloped public and private spaces”.

The report discusses:

- The types of green/blue spaces to protect and maintain
- Why green/blue spaces are important to Saanich
- How to protect green/blue spaces and
- Who should be responsible for this protection

Included is a list of 23 municipal actions that could be taken to achieve a network of green/blue spaces.

Categories of Green/Blue Spaces

- Ecological
- Scenic
- Renewable Resource Working Landscapes
- Outdoor Recreation
- Greenways

Each category of green/blue space has an accompanying map that illustrates where the important areas for that category are found spatially in Saanich.

Partnerships in Achieving this Vision:

- Individual citizens
- Community associations
- Adjacent municipalities
- Institutions
- Capital Regional District
- Province of British Columbia
- Government of Canada
- Service organizations
- Environmental non-governmental organizations
- Businesses and corporations

Alternatives to Direct Saanich Acquisition:

- Land fee simple purchase
- Gifts/donations/exchanges
- Conservation covenants
- Easements
- Leases and contract agreements
- Voluntary management agreements

Planning Tools and Initiatives identified:

- Official Community Plan provisions
- Parks, greenways and trails network
- Development Permit Areas
- Development Cost Charges (DCC's)
- Heritage Conservation Areas
- Restoration sites

The full document is available here, on the [Saanich website](#).



Review of Saanich Marine Shoreline Resources and Options for Protection

Luanne Chew for Saanich Planning, 2002

Marine waters border Saanich on both eastern and southern boundaries. This report discusses both the outer coast (waters on the eastern shoreline bordering Haro Strait), and the inner coast (waters on the southern side of Saanich along the Gorge Waterway and Portage Inlet). The outer coast totals 24.5 km of shoreline, while the inner coast totals 8.2 km of shoreline.

In Saanich, the main threats to these areas are from: loss of coastal habitat due to physical alterations of the shorelines for human use and habitation, removal of native vegetation, and contamination of coastal and interior waters from fecal coliforms and chemical contaminants.

Coastal Ecosystem Processes and Functions

Coastal environmental zones include upland, supratidal, intertidal, and subtidal (to 20m depth). The important functions of coastal vegetation in these zones include:

- Habitat for fish, bird, and shellfish species
- Slope stability
- Filter for sediment and pollution contamination from upslope into marine environments
- Food sources (insects) for fish and birds
- Reduction of wave impacts

A useful table summarizes the many different threats to coastal habitats in terms of human activities, impacts, physical changes, changes over time, and habitats most affected. Additional threats at the regional and global level are also noted.

Saanich Coastal Resources

At the time of writing this report (2002), there was no detailed ecological inventory of fish, birds or wildlife for the outer coast of Saanich. Several studies had been completed on shoreline conditions and values for the outer and inner coasts (Gorge Waterway and Portage Inlet), including the following reports:

1. Victoria and Esquimalt Harbours Environmental Action Program (VHEAP)
2. Harbours Ecological Inventory Rating (HEIR, 2000)
3. Marine Shoreline Resource Analysis (1976)
4. Saanich Marine Shoreline Survey (2000)
5. Capital Regional District Round Table on the Environment reports on environmental conditions and trends in the CRD

Sources of ecological data for the Saanich marine shorelines included the following:

- Sensitive Ecosystem Inventory (1993 to 1997)
- Conservation Data Centre Rare Element Occurrences
- Saanich Environmentally Significant Areas Atlas and Inventory
- CRD Natural Areas Atlas



Saanich Parks

At the time of writing this report, 17 of Saanich's parks were located on outer coast of the marine shoreline. Nine of these 17 parks were designated for restricted development, meant to minimize ecosystem disturbance. None of these 17 parks was designated as a nature sanctuary, meant to preserve plant and animal life from human disturbance. One site on the outer coast, the Ten Mile Point Ecological Reserve, was identified as a provincially legislated protected area, mainly providing offshore protection.

Stewardship Initiatives

A number of community groups and stewardship organizations were identified that could potentially work with Saanich on protection of marine resources and habitats:

- Stewardship Centre of BC (Green Shores Program)
- Veins of Life Watershed Society (VOLWS)
- Georgia Straight Alliance
- Land Trusts

Legislation

This report contains a comprehensive summary of federal and provincial legislation that pertains to fish habitat protection, pollution prevention, protected areas and coastal development. Following this is a discussion of all the local government planning tools available for protection and conservation of marine shorelines and resources, including:

- Official Community Plans
- Development Permit Areas
- Local bylaws
- Acquisition of ecologically sensitive lands and habitats
- Covenants

The report discusses examples from other nearby municipal jurisdictions and several US states.

Recommendations

Based on information on ecologically sensitive marine areas and the habitat protection requirements under existing legislation, recommendations were made to strengthen the existing Saanich planning policies to better protect its marine shorelines:

1. Identify and designate environmentally sensitive shoreline areas as DPS's
2. Consider designating all marine backshore areas as DPA's
3. Consider establishing vegetated buffer zones along marine shorelines
4. Continue to work with CRD to monitor and investigate sources of pollution in the marine environment
5. Continue to work with stewardship groups to educate coastal landowners, developers and the public about the important functions of coastal ecosystems, potential impacts and threats, restoration options, and management tools for sensitive habitats
6. Ensure that any changes to the OCP, DPA's, bylaws and local government regulations undergo public review



Resilient Saanich FACTSHEET #5

Biodiversity Related Saanich Reports



Declaration of the Right to a Healthy Environment

Saanich Council, 2015

On January 26, 2015 Saanich Council unanimously approved a motion supporting a Declaration of the Right to a Healthy Environment. The David Suzuki Foundation Blue Dot Tour inspired many Canadians to request that the right to a healthy environment be enshrined in the Charter of Rights and Freedoms. Council's resolution acknowledged that people are part of the environment and that a healthy environment is inextricably linked to the well-being of our community. They endorsed the statement that all people have the right to live in a healthy environment, including:

- The right to breathe clean air;
- The right to drink clean water;
- The right to consume safe food;
- The right to access nature;
- The right to know about pollutants and contaminants released into the local environment;
- The right to participate in decision-making that will affect the environment.

In their resolution, Council acknowledged that the District of Saanich has the responsibility within its jurisdiction to respect, protect, fulfill and promote these rights and to apply the precautionary principle. Where threats of serious or irreversible damage to human health or the environment exist, it was resolved that Saanich will take cost effective measures to prevent the degradation of the environment and protect the health of its citizens. Lack of full scientific certainty was determined not to be viewed as sufficient reason for Saanich to postpone such measures. The resolution states that Saanich will apply full cost accounting and when evaluating reasonably foreseeable costs of proposed actions and alternatives, Saanich will consider costs to human health and the environment.

Council further committed to considering objectives, targets, timelines and actions to fulfill the above rights; reviewing these every five years to evaluate progress towards fulfilling this declaration, and consulting with residents as part of this process. Council identified looking at options to:

- Ensure equitable distribution of environmental benefits and burdens within the municipality;
- Ensure infrastructure and development projects protect the environment, including air quality;
- Address Climate Change by reducing greenhouse gas emissions and implementing adaptation measures;
- Responsibly increase density;
- Prioritize walking, cycling and public transit as preferred modes of transportation;
- Ensure adequate infrastructure for the provision of safe and accessible drinking water;
- Promote the availability of safe foods;
- Reduce solid waste and promote recycling and composting;
- Establish and maintain accessible green spaces in all residential neighbourhoods;

The full resolution can be viewed, starting at page 5: <https://www.saanich.ca/assets/Local-Government/Documents/Mayor-and-Council/Council-Meetings/2015-Schedule-Agendas-and-Minutes/Minutes/2015-01-26-council-minutes.pdf>