

GREEN SHORES Project Charter

February 2007



A PROJECT OF THE STEWARDSHIP CENTRE FOR BRITISH COLUMBIA

Table of Contents

<i>What is GREEN SHORES?</i>	1
<i>Project Components</i>	1
<i>Why is GREEN SHORES Needed?</i>	2
<i>Project History</i>	3
<i>Project Scope</i>	4
Targeted GREEN SHORES Design Features	4
Geographic Scope	4
Target Audience	4
<i>Technical Working Group</i>	5
<i>Advisory Committee</i>	6
<i>Measuring Success</i>	7
<i>Key Contacts</i>	8
Project Sponsor	8
Technical Team Project Manager	8
Government/Community Outreach Coordinator.....	8

What is GREEN SHORES?

The Green Shores project promotes sustainable use of coastal ecosystems through planning and design that recognizes ecological features and functions. GREEN SHORES promotes healthy coastal and marine environments that provide both valuable habitat and goods and services of significant economic and social value to coastal communities.

GREEN SHORES is based on four Guiding Principles:

1. Preserve the integrity or connectivity of coastal processes.
2. Maintain or enhance habitat diversity and function.
3. Minimize or reduce pollutants to the marine environment.
4. Reduce cumulative impacts to the coastal environment.

GREEN SHORES enables project planning and design that:

- o connects people with the shore environment.
- o delivers triple bottom line (environment, social and economic) benefits.
- o recognizes that site specific, cost effective solutions can only be achieved by using an integrated design approach.

Project Components

The GREEN SHORES project is focused on developing resources and tools to support sustainable use of coastal systems through the following key components:

1. **A GREEN SHORES Rating and Assessment Tool** – based on the GREEN SHORES principles and the “Green Building” rating model. This tool is intended for use by designers, builders and owners to guide GREEN SHORES design and assess design performance.
2. **Conceptual Designs for Shore Protection and Development** – design ideas for alternatives to seawall and rip rap methods of shore protection for a range of shore types and physical settings.
3. **Support for Planning Language** – developed for use by local and regional governments to protect and conserve coastal ecosystem values and services e.g. Official Community Plans and Development Permit Area (DPA) guidelines.
4. **Case Examples** – developed in partnership with individuals, local governments and developers with the objective of testing and refining the GREEN SHORES assessment process and building the inventory of conceptual designs. Case examples will be strategically selected to address a range of coastal development issues, including brown field re-development of industrial and commercial sites, residential waterfront development and public space, walkways and park areas.
5. **Outreach Program** - To expand awareness and uptake of the GREEN SHORES approach by introducing GREEN SHORES to decision makers and the professional community.

On-line resources will include a GREEN SHORES website (<http://www.greenshores.ca/>) to provide accessible and updateable tools for design professionals, property owners, builders, planners and local community based organizations. GREEN SHORES products, including case example reports, will be made available on this website.

Why is GREEN SHORES Needed?

Coastal and marine environments provide essential services and goods to our community from ecological, economic and social perspectives. Important ecological services include habitats for diverse species of plants and animals, foraging and spawning habitats for marine fish and invertebrates, breeding and feeding areas for birds. Key socio-economic services include marine-oriented commercial, transportation and industrial activities, recreational and tourism opportunities and valuable real estate. Furthermore, the shore is central to the character and culture of our coastal communities.

Shores have structure, function and process. They are constantly moving, changing and evolving in response to the influence of external natural forces such as winds and tides. The form and dynamics of the physical shore help determine essential habitat conditions for BC's coastal plants and animal communities. Frequently we seek to 'immobilize' shorelines, making them static, to suit our perceived need. Yet too often, this results in destabilizing the shore processes and functions. If the value and availability of our coastal resources and their associated services and goods are to be sustained, the integrity of coastal ecosystems must be protected.

Communities in coastal BC are experiencing unprecedented levels of new development and re-development. Many older community waterfronts, once dominated by industrial and resource industries, are moving toward residential, commercial and public uses of waterfront. Many seasonal recreational properties are evolving into highly developed residential uses. This is a critical time, presenting an opportunity to rethink and influence approaches to coastal land use in BC. It is an opportunity to recognize the unintended consequences of some past practices and provide alternatives for remediation. Examples include "hardening" of the shore by seawalls and rip rap embankments, loss of shore vegetation, and disruption of coastal processes that result in reduced ecological productivity, ecosystem function and service.

The need for sustainable approaches to shore development in BC coastal communities is further accentuated by three important factors:

Population Growth Projected to be over 30% in most parts of the Georgia Basin over the next two decades).

Waterfront Development Pressure In coastal communities development activity is primarily focused on waterfront property. This includes large commercial/residential developments in former industrial areas (brown fields) and the transformation of small, seasonal homes to large full time residences.

Climate Change Most current models of climate change suggest sea level rises of 30-50 cm coupled with more severe episodic storms over the next 5 to 10 decades – within the life cycle of current development projects. A common reaction to these storms is to build seawalls and other hardened protection, with impacts to coastal processes, adjacent properties or nearshore habitats.

All of these factors present major challenges - but also an important opportunity to influence the next generation of coastal development to reflect designs that are in balance with natural processes.

Project History

The GREEN SHORES approach was developed in response to interest by local planners, civic officials, land developers, and property owners who participated in public workshops based on *Coastal Shore Stewardship: A Guide for Planners, Builders and Developers*, published by the Stewardship Centre for British Columbia as part of its Stewardship Series <http://www.stewardshipcentre.bc.ca/>. Participants recognized the need for coastal stewardship but pointed out the lack of alternative design options, tools such as a checklist of development considerations and accessible information on ways to minimize the impacts of human settlements on shores and shore systems.

The workshop team was inspired by the success of the Green Buildings program in facilitating sustainable building design. In particular, Green Building rating and certification programs such as LEED (Leadership in Energy and Environmental Design) are now widely accepted as a reference standard for new buildings and commercial developments. The team asked, could the Green Buildings experience be used as a model for a more sustainable approach to coastal development and design?

Project Scope

Targeted GREEN SHORES Design Features

The GREEN SHORES Project and, in particular, the GREEN SHORES rating system will address waterfront property design as it relates to shore values and processes including:

- Building siting and design
- Site landscaping
- Shore protection
- Containment of upland contaminants
- Shore structures – walkways, piers, groynes, dykes
- Stormwater treatment and discharge
- Construction Practices
- Materials – sources, components.

Geographic Scope

The GREEN SHORES approach is applicable to all coastal systems. Initially GREEN SHORES tools and case examples will be developed for British Columbia coastal areas. Following the Green Building model, a fully mature GREEN SHORES program could be national or international in scope.

Target Audience

Property owners, developers, real estate industry

Organizations with a financial interest in the shore property, associated buildings and their operation.

Professional Firms and Associations

Firms offering professional services such as landscape architecture, coastal and geotechnical engineering, surveying, habitat assessment.

Construction Contractors

Firms and industry associations involved in construction of shore structures such as pile driving, shore protection, dredging.

Non-profit organizations

Organizations with special interest in the coastal environment and management.

Planners and Regulators and Elected Officials

Federal, provincial and local governments involved in planning, policy, management of marine coastal areas.

Program Governance

Currently program oversight is provided by a Technical Working Group supported by an Advisory Committee. The roles and responsibilities of these groups and individuals are described below.

In the long-term, the GREEN SHORES program is envisioned as a non-governmental, professionally led endeavor, akin to the US and Canadian Green Buildings Councils. As such a governance structure and means of sustaining financial support must be developed.

Technical Working Group

At present, the Technical Working Group is responsible for all aspects of the GREEN SHORES Program. A fully developed program will likely be comprised of an Administrative Group, responsible for operation the program and the Technical Group, responsible for technical tools, conceptual designs and case examples.

Program Coordinator

- General project management
- Fundraising, grants, budget and funder recognition
- Coordination of the Technical Working Group and the Advisory Committee
- Outreach program design and delivery

Brian Emmett

Archipelago Marine Research Ltd.

- Fisheries habitat and ecological topics
- Conceptual designs – ecological aspects
- Coordination of ratings/certification topics
- Case examples
- Liaison with professional biologist sector and federal and provincial environmental regulators

John R. Harper

Coastal and Ocean Resources Inc.

- Coastal processes and geomorphology topics
- Conceptual designs – coastal process aspects
- Case examples
- Liaison with geologist/geotechnical professionals

John Readshaw

Sandwell Engineering Inc.

- Coastal engineering topics
- Conceptual designs – engineering aspects
- Case examples
- Liaison with engineering, architectural and construction sectors

PROJECT CHARTER

Harriet Rueggeberg

Lanarc Consultants Ltd.

- Local and regional planning and regulatory topics
- Liaison with the professional planning and local government community
- Case examples with a planning/regulatory component

Martine Desbois

Martine Desbois and Associates

- Advisor on program development and governance
- Advisor on ratings/certification topics
- Professional liaison with the Green Building community

Gretchen Harlow

Canadian Wildlife Service, Environment Canada

- Program facilitation within government
- Program funding and granting
- Liaison with key government contacts and NGO groups
- Outreach to non government organizations and contacts

Advisory Committee

The Advisory Committee provides strategic advice and critical review to the GREEN SHORES Technical Group from the perspective of each member's discipline and background. In addition Advisory Committee members are involved in communicating the GREEN SHORES objectives and tools within their professional community.

The following individual/organizations are currently members of the GREEN SHORES Technical Working Group:

Barry Janyk – Mayor of Gibson's, BC

Anna Mathewson – Fraser River Environmental Management Program

Doug Myers – Puget Sound Action Team

Rob Russell – Dept of Fisheries and Oceans

Mike Rogozinski– BC Real Estate Foundation

Alex Zimmerman – Applied Green Consulting and board member of the Canada Green Building Council

Naomi Tabata – Stewardship Centre of BC

BC Ministry of Environment - Open -

BC Society of Landscape Architects - Open -

Academic - Open –

NGO - Open -

Financial Support

In 2006-2007 financial support for GREEN SHORES has been generously provided by:

- Real Estate Foundation of B.C.
- Bridge Coastal Legacy Fund
- Habitat Conservation Trust Fund
- Ducks Unlimited
- Georgia Basin Action Plan
- Environment Canada – National Plan of Action
- Comox/Strathcona RD
- Sunshine Coast RD
- District of Squamish
- Dept. of Fisheries and Oceans

Measuring Success

Ultimately the goals of the GREEN SHORES program are to:

- Improve the health of the local and regional ecosystems
- Increase the rate of positive change occurring locally, regionally and globally
- Improve the quality of the shore environment on the Pacific Coast
- Stimulate the adoption of GREEN SHORES approaches
- Encourage integrated design processes
- Raise the bar for shore protection design within the professional community.
- Decrease the amount of pollution input and loss of habitat features and functions regionally

The following indicators will provide a measure of the success of the GREEN SHORES program:

1. number of contacts, numbers of people in attendance at events, training, presentations, articles in newspapers, newsletters, magazines and on line publications
2. number of on line participants - the GREEN SHORES Community of Interest website will be designed to track the number of site visitors, what was accessed and products requested and downloaded.
3. evaluations of events (feed back forms) by participants.
4. Case example (property owner/local government) evaluations that look at issues surrounding satisfaction with results of work done; costs; replication; recommendations
5. number of peer reviews of the project ratings, uptake of ratings by the professional community
6. number of GREEN SHORES professional development workshops
7. number of volunteers participating directly in project
8. number of partnerships developed

PROJECT CHARTER

9. number of federal, provincial and local government departments involved
10. number of local governments adopting green shores policy
11. number of public events organized
12. Amount of money raised to support the program

Key Contacts

Project Sponsor

The Stewardship Centre for British Columbia
Naomi Tabata
583 Island Highway Campbell River, BC
V9W 2B9
Tel 250 286-4765
ntabata@telus.net

Technical Team Project Manager

Brian Emmett
Archipelago Marine Research Ltd.
525 Head St
Victoria, BC
V8A 5S1
Tel 250 383-4535
briane@archipelago.ca

Government/Community Outreach Coordinator

Gretchen Harlow
Canadian Wildlife Service
Environment Canada
5421 Robertson Road
Delta, BC
V4K 3N2
Tel 604 940-4659
Gretchen.harlow@ec.gc.ca