

Defining Landscape Character and Exploring Sustainable Futures: Executive Summary and Technical Appendices

Mayne Island Studio
Landscape Architecture 504B
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**Executive Summary and Appendices Prepared
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ORGANISATION

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SECTION 1:

Executive Summary

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EXECUTIVE SUMMARY

STUDIO LEARNING OBJECTIVES

The goals of the studio course Landscape Architecture 504B are to provide students with both concepts and practical experience in landscape and open space planning, in the context of a real community and larger scale rural landscape. The class is expected to provide professional quality products, of potential value to the community's future planning process. This year, 18 2nd year Graduate Landscape Architecture students worked on the Mayne Island project over a period of approximately 8 weeks between February and April 2005.

The UBC studio class works with the community to identify and map important landscape values at a broad scale, such as visual quality/landscape character, recreation and tourism opportunities, and "ecological footprint"/sustainability analyses; these factors are often not recorded in conventional planning inventories. They can be helpful in mapping the often intangible sense of place issues that the community cares deeply about, while also suggesting environmental constraints that may limit the capacity for development and self-sufficiency of a community. The studio typically uses GIS data to assist this analysis, if available, and builds upon whatever data already exists to provide some new digital mapping useful to the community after the studio is over. Studios emphasize considerable community involvement and coordination with the planners, to ground the students in the real world issues and sensitivities, while retaining a neutral and objective position. We use sketches and landscape visualisations (eg. in Photoshop) to bring ideas and concepts alive.

PROJECT GOALS

Mayne Island is facing the prospect of change as demand for recreation grows, rising property values encourage build-out within the existing zoning, the housing stock turns-over and is 'upgraded', and longstanding patterns of land ownership change. As with all of the Gulf Islands, the community remains vulnerable to external pressures such as ferry fares and schedules, oil and other transportation costs, energy supplies, climate change, cost/availability of off-island services, etc. In recognition of these trends and in response to recent controversies over local developments which some see as threatening the rural character of Mayne Island, the Islands Trust is planning a new Official Community Plan (OCP) for the Island in 2005. This UBC studio project attempts to provide new information and possible new visions for the landscape of Mayne Island, as a talking point for the community and the Islands Trust and to stimulate thinking about choices for the future, prior to the formal OCP process.

The goals of the Mayne Island studio were to:

- Provide a landscape character inventory (identifying critical areas/patterns/values) and assessments of existing conditions, opportunities/precedents, and constraints for 1) recreation/tourism and 2) sustainable development within the Island's 'ecological footprint'.
- Develop future landscape concepts and design vignettes or prototypes that reflect either the continuation of existing trends or alternative visions that reflect resource

constraints and desired community character, eg. in showing what sustainable communities on Mayne Island might look like.

Key questions which the studio considered include:

- What does the community value about their environment?
- How do we define "rural"?
- Is there a desired Island "look" or "feel"?
- What level of development do different community interests want?
- What forms of development are considered appropriate?
- What forms of local resource use/harvesting are acceptable?
- What levels of community self-sufficiency are attainable?
- How will the area change if no change to planning procedures occurs?

The results of these studies raise key implications for the sustainability, identity, quality of life, and economic well-being of the community. It is hoped they will raise the awareness of the community and elected officials on the risks and opportunities related to Mayne Island's future development and protection.

PROJECT PLANNING PROCESS

This studio emphasized analysis of **the socio-cultural landscape**, on both public and private land, based on existing information and limited field reconnaissance. This combined mapping, interpretation of anecdotal and survey information from contacts, and our own evaluation (as landscape architects) of experiential and sometimes intangible values. The project also draws upon precedents for open space planning methods, design approaches, and management techniques from other relevant communities (in BC, elsewhere in Canada and internationally).

For the Mayne Island studio, a preliminary reconnaissance and data collection trip was conducted in early February, with initial discussions with some community representatives. Further field work was conducted on a second trip in March, when an Open House was held with approximately 60 people from a cross section of the Mayne Island community, and more visits and interviews with community members were conducted.

The project planning process had 4 main stages (see project flowchart, Figure 1):

1 Inventory of Landscape Themes

Three themes were mapped and analyzed:

- **Landscape character:** eg. sense of place, community identity, including important viewsheds, visually sensitive areas, view corridors (eg. ocean views), scenic or community features, special places, heritage landmarks and historic landscapes, cultural resources, and enhancement possibilities.
- **Recreation resources, uses and needs** influencing tourism and resident use areas/recreation opportunities: eg. trail connections with regional and local networks, open space for community access and appropriate range of recreational uses, settings, interpretative opportunities, user impacts and conflicts.
- **Sustainability indicators/ecological footprint:** ecological and quality of life issues, including community self-sufficiency and current indicators of

sustainability. Research was conducted on energy efficiency, food production, fuel/biomass production, fossil fuel use, off-island critical services, water supply/aquifers, sewage system/limits, economic/community stability factors, etc.

Each of the three groups formed to work on these themes developed their inventory/analysis methodology, with guidance from the Instructors. Desk-based mapping was conducted using existing data, base mapping and orthophotography, supplemented by field reconnaissance/photography and interviews with staff or community members. Analysis was based on field work, available information from secondary sources, review of aerial orthophotography provided by Parks Canada (Gulf Islands National Park Reserve) and the Islands Trust, and GIS-based analysis where appropriate. Ecological mapping provided by the Trust was integrated into this assessment.

2 SWOT Analysis and Critical Area Mapping

Each group analyzed the current **strengths** and **weaknesses**, and future **opportunities, and threats** (SWOT) for Mayne Island relevant to their theme, as a form of opportunity and constraint analysis. Foreseeable opportunities and threats may arise either from internal factors in the study area (eg. water seepage and contamination from pollution sources), or documented assumptions on external influences (such as regional economic/housing trends or increase in recreational visitors), taking into account the **context and trends** likely to affect the Island area over the next 20 years or so.

The SWOT analysis results were distilled down to produce a **Critical Area Map** for each of the 3 themes. Critical areas are defined as those areas critical to sustaining the current or future open space functions or other benefits related to the particular open space theme. This included mapping of **critical areas suitable for protection, restoration/enhancement, or development compatible with sustainability goals and community character**. These maps were digitized for entry to the GIS database, with appropriate documentation of rationale and definition, sources, etc.

3 Future visioning

Under continued existing trends, and assumptions on both more sustainable alternatives and possible threats, we projected out conceptual futures for the Mayne Island landscape, with the use of visual imagery or '**vignettes**' to illustrate key concepts or illustrative prototypes in selected key areas. These have been prepared using **sketch graphics, photographs, and selected visualizations** of 'what-if' conditions, using Photoshop or other programmes.

4 Developing recommendations on policy, management, and design guidelines/prototypes.

Conceptual recommendations/ guidelines for policy, design, and/or management have been developed for certain key areas, based on the previous steps (values to be provided, trends/opportunities to offset or encouraged, desired futures to be obtained).

UBC has provided materials in the form of mapping, graphics, and summary reporting (in digital form), for use by the Trust and/or CRD in future planning processes, and for UBC for educational or possible publishing purposes. **Deliverables** include:

- Key inventory or analytical maps
- Maps of critical areas
- Visualisations and accompanying narratives for possible future conditions
- Recommendations.

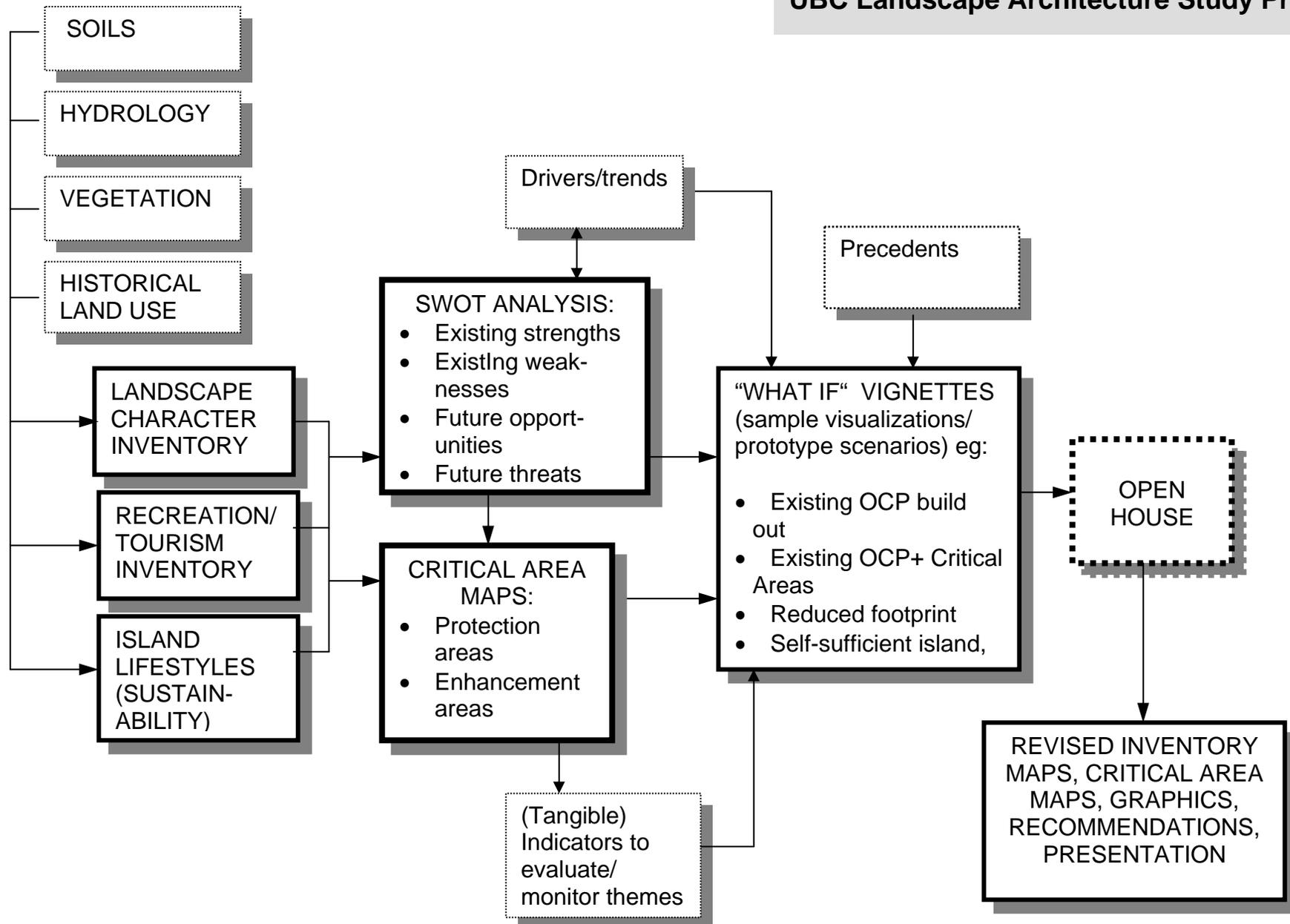
These are documented in an accompanying **Final PowerPoint** presentation with illustrations and mapping, this **Executive Summary**, and accompanying **Technical Appendices**. The PowerPoint presentation is intended as the main stand-alone deliverable; the Technical Appendices re intended to provide the background on methods and detailed findings not reported in the PowerPoint presentation. Each of the three student groups documented the process, data sources, and criteria employed, in their respective Technical Appendices.

Digital files of **GIS mapping**, image graphics, PowerPoint presentations, and Technical Appendices have been provided to the Island Trust. Presentations will also be made to the Mayne Island Community and Islands Trust. The initial PowerPoint provided at the March Open House was posted on the Mayne Island website (www.mayneisland.com); the final PowerPoint is also planned to be posted on the same website fro open community access. All materials have been provided to the Islands Trust: where further enquires should be made in accessing that material.

CAVEATS: Given the short time available to the students, there is a limit to the depth and detail to which the students can go. While the students have made every attempt to documental and map key resources accurately, it is recommended that the mapping be ground-truthed and refined if necessary as part of any process to incorporate the data or unit boundaries into policies or other mapping/analysis processes.

Landscapes and Lifestyles of Mayne Island

UBC Landscape Architecture Study Process



SUMMARY OF KEY FINDINGS AND RECOMMENDATIONS

Key findings and recommendations are provided in the PowerPoint presentation, with detailed recommendations from each student group documented in the Technical Appendices. A summary of key findings and recommendations follows:

Landscape character findings and recommendations:

The rural character of Mayne Island is defined by: the dispersed, varied, and small scale nature of development relative to tree height and landforms, with most views framed or back-dropped by natural-appearing forest and hills; no two buildings are alike; ocean and shoreline views are critical to the sense of an island, with limited but important views oriented towards the many bays; agricultural openings and fields are also critical in providing longer vistas and enclosed but sunny open spaces; narrow winding roads over undulating topography, with road widths dwarfed by roadside tree heights; views to key features such as heritage arbutus trees, historic buildings, the Mount Parke ridge, and nearby islands; the roughness and softness of edges between manmade features (eg. roads, parking areas, driveways) and natural vegetation (there are virtually no curbs on Mayne Island); the rural vernacular of old orchards, old utility buildings and equipment from earlier periods, split-rail fences, individual expression of owners on gates, signs, etc; stone-walls from the Japanese cultivation period, etc. Special places such as Miners Bay village, Bennett Bay, Punch's meadow, Georgina Point, and other bays and points contribute strongly to the community identity and to visitor orientation. The character of Mayne Island is largely intact at this time, unlike many Gulf Islands and other parts of SW BC; the ferry terminal is the main area that fails to match the character of the island, and provides an unsatisfactory and disorientating welcome to visitors. The character of the island depends in part on human habitation and productive use of the land: farming, tree removal to retain or restore pre-existing views, and recreation. The main threats come from poorly designed logging/clearing on upper hillsides; subdivisions which result in large scale clearings, similar-appearing homes, and incompatible road standards; increased scale of housing with incompatible design materials, landscaping, and view blockage; insensitive widening of rural roads; loss of ocean views and meadows through tree growth; insensitive expansion scale and view blockage from tourist accommodation in key locations; and neater road, parking, and sidewalk standards in Miners Bay village.

Recommendations:

- Develop specific design/management guidelines for landscape character zones identified in the Critical Area 1 mapping and transition zones (provided by this Studio)
- Review and expand OCP mapping and guidelines for significant topographic areas (beyond the current Upland zoning) which are important in on-island and boater/ferry views
- Recognize and develop specific guidelines for Miners Bay as a unique Historic Landscape, which would permit small scale and compatible development and infill without destroying its character.
- Recognize, define, and develop guidelines for retention of existing open views to the water in key view corridors and from public roads and tourism/recreation areas.
- Develop guidelines for design of timber harvesting and clearing, adapted from those used in similar areas (eg. Galliano).

- Recognize and develop guidelines for management to retain key open landscapes/meadows on the island.
- Recognize and develop guidelines for maintain the character of characteristic scenic roadways and adjoining vegetation.
- Develop joint plans for upgrading the ferry terminal scenic character

Recreation findings and recommendations:

Recreation is important for local residents' quality of life, visitors' experience, and the tourism economy on the island. There is potential to expand recreation and tourism to take advantage of natural and historic landscapes, extensive shoreline, and diverse nature-oriented activities; however, considerable recreating for locals is provided on private land that may not be suitable for expanded public use in its present state. There is considerable access to the shoreline permitted, but this is not well signed for visitors and there is a particular shortage of access along the shoreline for the public, due to the distribution of private lots. There are opportunities for expanding trail linkages and use of non-motorized transport. The greatest threats arise from changes in landscape character of the island, uncontrolled growth in recreation visitation and camping, congestion, and property damage.

Recommendations

- Expand key trail linkages between Mount Parke, Miners Bay, and other key access loops identified in the Critical Area Mapping, through landowner agreements, easements, etc.
- Study the potential for controlled use, interpretive shoreline trails at one or more topographically-suitable locations on the island as shown in the Critical Area Mapping (eg, Helen Point, Horton bay area)
- Develop historic interpretation facilities and tours for the Island, in conjunction with First Nations interests and long-time Mayne Island families.
- Design and implement plans for new pedestrian/non-motorized trails, within the right-of way where possible but separated from the existing roadway, in key corridors such as Village Bay Road and other recognised scenic roadways consistent with Options C and H in the Pathway and Bikeway Alternatives vignettes (Technical Appendix).
- Develop plans to promote the use of electric bicycles/vehicle system suited to Mayne Island because it's topography, travel distances, sustainability, and low impact on residents' tranquility. An appropriate place for an electric vehicle rental, repair and sales shop would be near the ferry terminal but away from congested traffic areas.
- Develop plans with the community for potential expansion of low-impact camping areas to provide enhanced recreation experience, absorb peak periods use in a controlled way, and minimize impacts on the community and environment. Site suitability analysis should be conducted (based on the Critical Area mapping provided by the Studio) to identify possible sites. Guidelines for development should include using traditional construction methods and local materials, protect natural habitats and landscape features, avoid exotic plant species, incorporate buffers between campsites and local residences, develop well signed trails and facilities, and employ low water- and energy-use facilities.
- Explore the potential for further commercial development in proximity to other commercial activities and recreation destinations (e.g. Miners and Village Bay) that can cater to visitor needs and showcase island products. .

Sustainable lifestyles findings and recommendations

There is considerable history, capability, and potential in the Mayne Island community of greatly increased self-sufficiency and reduced consumption of imported resources. This is likely to become critical in the future as energy prices go up, growth continues on the island, and property prices make it harder for local people and young families to remain. The balance of demographics is shifting steadily towards an older population, leaving the community without a fully functioning rural base and ultimately unable to sustain itself without expensive imported services. Water is the main limiting factor on growth and development, though much better use of rainwater and improved management of groundwater could be made, with encouraging recent progress in this direction. The island has a benign climate, relatively good soils in many areas (perhaps beyond those currently used for agriculture), and good access to solar energy and wood fiber/biomass from a rapidly growing productive natural (rainforest) resource. Local knowledge on the environment and history of land use/community, and expert knowledge on organic and high-value farming methods, are major assets. Threats include contamination of water supply from septic fields and effects of climate change on water supply.

Recommendations (water supply):

- Develop programmes to promote water conservation and wise use in existing development through installation/ retrofitting of Ultra-Low Flush (ULF) toilets, rainwater harvesting systems for landscape irrigation and toilet use, and grey water treatment systems for landscape irrigation.
- In any new development or reconstruction, mandate installation of ULF toilets, rainwater harvesting for landscape irrigation and toilet use, and grey water treatment systems for landscape irrigation.
- Install water meters on all homes for the purpose of monitoring volume of use.
- Pressure the Ministry of Land, Water and Air complete a comprehensive aquifer and groundwater investigation and analysis, to support a Water Resource Management Plan and well registration program, for Mayne Island developed by the Ministry and Islands Trust.
- Explore the feasibility of integrating water districts.
- Develop stronger and more explicit language and recommendations for water conservation in the OCP.

Recommendations (sewage disposal and wastewater):

- Develop controls and procedures for proper siting of septic fields according to soil suitability (soil type, slope, depth) at both the local and regional scale (see initial suitability mapping provided by Studio).
- Establish a pilot programme to test the feasibility of constructed wetlands and solar aquatics as alternative wastewater treatment technologies.

Recommendations (food supply):

- Develop a food policy (as done by other communities) to develop a sustainable food system that greatly increase island self-sufficiency, fosters sustainable agriculture, provides equitable food distribution, and encourages good nutrition and community development.
- Develop policies encouraging the viability of on-island processing and distribution of food, as well as opportunities to grow a larger local (Mayne Island) market.

- Strengthen local policies and management practices to maintain existing agricultural areas in agricultural use, seeking an appropriate balance between tourism-based, off-island sales, and community-use agriculture.
- Based on a suitability analysis (see initial studies in the Technical Appendix), develop a policy on potential appropriate expansion of agricultural uses in suitable areas which are currently forested or in other uses, to avoid adverse effects of other policy decisions on the sustainability of Mayne Island's food system and its food security, and to ensure compatibility with Island water resources.

Recommendations (community demographics):

- Develop a policy to address the issue of an aging population and the need for a more balanced age demographic, through provision of elderly housing and services within existing communities, affordable housing, schemes to encourage retention and attraction of young families to support the school system, and provision of multiple community services using resources on-island.
- Develop policies encouraging increased use of on-island resources and value-added products from the recycling depot, and reduced dependency on imported resources.
- Develop policies to promote local cultural products and tourism services year-round as a key part of the economy.

Recommendations (energy):

- Develop a policy and targets for energy use and conservation, for Mayne Island, emphasizing reduced use and dependency on fossil fuels and increased use of on-island energy resources.
- Develop OCP language and incentives to encourage homeowner participation in federal and BC Hydro energy programs (see Technical Appendix).
- Develop ongoing community educational and informational programs/initiatives to support energy conservation and systems for efficient, non-polluting use of renewable on-island energy resources, with consideration of how to manage/enhance effects on landscape character, groundwater, and the local service economy.

General recommendations:

- Review, refine, and integrate where appropriate the Critical Area mapping provided in this studio into the OCP.
- Explore community-based permissive guidelines for new building with Mayne Island vernacular house styles which fit the local landscape character and scale, integrate low water use systems and landscaping, have minimal environmental footprints (use/reuse local materials), feature high energy-efficiency and use of on-site renewables, and promote local food production eg. restoration of historic orchards.
- Develop a ‘welcome package’ of Mayne Island Guidelines for new homeowners/incomers, educating them on the Island’s issue on water, fire, landscape, sewage, food, etc, and providing guidance on land management, resource consumption, volunteer activities, on-island eservices, etc.
- Develop an “Island Code of Conduct” for visitors and tourists, explaining the resource issues, history, and sensitivities of the Island, and recommending things to do/not do to help maintains character and community tranquility.
- Evaluate potential new subdivisions in existing natural areas with special planning procedures (include consideration of alternatives and use of visualisations from key

viewpoints), against the criteria addressed in the OCP and in the Critical Area Mapping provided by this studio.

- Consider developing a community-based, integrated landscape management plan for the Miners Bay area (Historic Landscape), to integrate and refine the various recommendations made in previous studies and this Studio.
- Develop a Ferry Terminal Landscape Plan (in co-ordination with BC Ferries) to upgrade the area in and around the site and integrate/ refine the various recommendations made in this Studio.

Mayne Island will change but can change in desirable and compatible ways, with sufficient care and vision. It has many things going for it: its history, relative isolation, the character of its people and its landscape, mild climate, good soils, enough water (carefully managed), productive ecosystems, willing volunteer. If a distinctive community that is largely self-sustaining over the long term cannot be maintained here, there is little hope for the rest.

ACKNOWLEDGEMENTS

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Thanks to the island trustees and to the many members of the Mayne Island community who gave up their time to welcome us to the island and provide important information, opinions, and support.

SECTION 2:

Technical Appendices

2.1 Landscape Character

2.2 Recreation and Tourism

2.3 Sustainable Lifestyles

2.1 Landscape Character

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TECHNICAL APPENDIX:

Mayne Island – Landscape Character Group

Group Members:

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1.0 Overall Goal:

To assess and identify the distinct character of Mayne Island and propose recommendations that will assist in future planning and development.

1.1 Sub-goals (more specifically):

- to identify and promote the continued existence of characteristic typology in existing spaces (natural forested areas, open-exposed spaces, ocean views, ridges) and roadways on Mayne Island
- to identify and promote the existing characteristic diversity and scale of established residential areas
- to identify opportunities that will enable some change, but maintain the unique, historic character, landmarks, cultural aspects, and iconic views of Mayne Island

2.0 Methodology

The overall methodology is outlined in Figure 1 – Methodology Flow Chart Part 1 & 2 (Refer to the appended PowerPoint Presentation).

Part I. Pre Open-House Inventory and Assessment

“Character” is defined within this context to be those visual and subjective qualities, sensuous elements and collective attributes which inform (a) the spirit of place (b) the description of a specific landscape (i.e. landform unit), as well as the lifestyle and image

of a community existing within the landscape. In addition to empirical elements relevant to scientific observation, “data” may also be recorded through phenomenological process which would describe sensual, spiritual, historical elements that are linked to the landscape’s spirit of place. “Character data,” therefore, is either objective or subjectively derived, or both. The main idea is to create a balanced picture of landscape qualities representative of Mayne Island’s overall scenic appearance. It is hoped that the Community will be able to use this character information in order to decide a course of action, given the results.

The Landscape Character Group (LCG) was tasked to identify and map key physical attributes (typology) that would represent the distinctive character of Mayne Island within the Gulf Island archipelagos of British Columbia. In order to accomplish this task, the group conducted two assessment procedures which provided raw character data necessary for future discussion and analysis.

Thus, the landscape character assessment involved two missions: 1) field-survey of the Island, to include photography, sketches, interviews, sound-scape recordings and general personal orientation; 2) initial questionnaire survey of “visitor perceptions,” that is, how would people describe their initial impressions of place? What did they remember and enjoy best? What limited their enjoyment?

Observational data was collected during the field trip in February. Four teams of UBC field observers conducted a reconnaissance of Mayne Island’s north, south, east and west quadrants. Gathered data was plotted upon a general-inventory map, which included the following notable elements:

- topography (valley/flatlands, uplands, lowlands, bogs)
- scenic views
- road hierarchies
- edges, including community edges, forest edges, shorelines and enclosed bays
- architectural style
- tourist areas
- center of commerce
- significant pastoral spaces

- significant natural spaces
- landmarks and icons and heritage sites, including parks and significant trees
- vernacular materials such as light fixtures, signage and mailboxes.

Both general and specific locations for character inventory were then superimposed on a topographic map, including general impressions and descriptions of key physical (large-scale) features. Land forms were also recognized by the reconnaissance groups, pooled and then marked on a cursory inventory map. Forms, such as the “ridge area” of Mt. Parke, were added. For example, vernacular signage and open-plain views were observed in the south-east quadrant; the Windover Farm was a notable historic place, therefore a key physical feature that delineated landform.

The LCG decided that the initial questionnaire survey should poll the students and instructors who comprise the UBC Landscape Architecture Studio. The rationale was to first test the perceptions of the Island “visitor”. Given that few of us had ever visited Mayne Island, it was thought that it would be interesting to examine the “outsider looking in.” The initial survey consisted of two parts: 1) a series of questions; (2) a memory map – i.e. an informal hand-drawn image of the Island. No constraints other than a 10-minute time limit (and no peeking) were called for. The LCG reduced from a pool of maps created by members of each reconnaissance group all inscribed impressions and observations. Thus, a thematic map emerged revealing shapes, character, impressionable values and spatial references that “stood out” in people’s minds. It was interesting to observe and later discuss what landscape character forms were chosen by way of representation.

It is also interesting to note here that the recorded data for the field-survey did not necessarily match re-called perceptual data in the questionnaire survey. Moreover, certain places drawn on the memory map appeared to foreground their emphasis over those recorded on the inventory map. Elements of landscape remembered include outstanding topographic features, important look-outs and views, significant roads, paths and heritage sites. Thus, two products have now been generated: a general- inventory map and a questionnaire survey data base.

Biogeoclimatic information, including sub-variant information, was also consulted from the B.C. Ministry of Forests websites as well as their publication written by Klinka and Nuszdorfer (1979).¹ A strengths, weaknesses, opportunities and threats (SWOT) analysis chart in matrix format was put together from all of the pooled data, mentioned above. Current strengths and weaknesses, and potential opportunities and threats were thereby identified for Mayne Island.

Part II. Open-House: Collection of Perception Data

The UBC Studio hosted an open house on March 20th, 2005 at the Agriculture Community Hall in Miners Bay, entitled “Landscapes and Lifestyles of Mayne Island: Past, Present and Future.” Sixty-five individuals, not counting UBC, attended. A 30-minute PowerPoint was delivered, after which Island residents as well as some interested visitors circulated on the floor amongst three zones of static presentation: 1) rural character, 2) recreation/tourism, 3) ecological footprint and community sustainability. The Community had the opportunity to observe the poster materials as well as make general and specific comments – both orally and inscribed on the posters.

The Character Study Group (CSG) posted the following items for the Open House:

- Inventory Map & Site Analysis Map & Preliminary Character Themes
- Presentation of “visitor” survey data and memory map
- “What if?” vignettes of possible future landscape alternatives.

Open house attendees were encouraged to mark their preferences for or comments on particular “what-if” alternatives. A memory map exercise and a questionnaire-survey were conducted; this time the population group was the Mayne Island community. A copy of the response sheet for the survey is attached. Participants were encouraged to fill out the response sheet at the close of the Open House presentation.

Some members of the community preferred to respond to the survey by sending back their responses by way of postal service or e-mail. Messages were therefore received and then added to the data pool. There were thirty-three total responses to the survey.

¹ K. Klinka and F.C. Nuszdorfer, Biogeoclimatic Units of Central and Southern Vancouver Island; Ministry of Forests, Vancouver Forest Region, 1979.

Part III. Post-Open House Analysis

The process for generating final results is illustrated in Figure 2. From the Open House experience, the CSG was able to gather the written and recorded oral comments made by the community. It is recognized that survey responses and oral comments do not represent a true statistically valid sample, however within the given time frame, an attempt was made through public advertising by poster, flier Mayne Island website announcements and advertisement in the Mayne Liner newspaper to attain a representative cross section of island residents. The gathered information provided a baseline for future analysis, discussion and phenomenological description within the LCG.

A. Analysis and Synthesis of Data

Care was taken to repeat verbatim the actual content of the Community's responses -- without any interpretation. Responses were then differentiated by clustering into like-families, then tabulated and finally, counted. A binary list of preference (for or against) emerged; for example:

Value item listed on poster or other material:	Suggested	Opposed
Sidewalks and/or bike paths	2	2
Variety of architecture in neighborhood areas	5	3
Alternative transportation options	1	1

Key phrases were noted. The questionnaire-survey and memory map exercise were also tabulated and ranked by percentage (provided below). In both cases, each of the assessed value-items was ranked by percentage.

At this point, the LCG's methodology was reviewed and discussed. A collective summary table was synthesized and developed from the total of survey data and poster data. The total of listed responses was then checked against the following emerging categories of character theme:

Rural Qualities

Special Places

Views

Culture

Nature

Built Development

Sense of Caring for the Land

From this analysis of information, certain trends were observed. For example:

CHARACTER THEME	LANDSCAPE INDICATOR	PLACE WHERE THEME OCCURS MOST
Natural	arbutus trees forest dense forest at night beaches open pasture short shorelines enclosed bays adjacent islands variety in topography stars at night	Mt. Parke, National Park, Point Helen, Gallagher Bay, Piggott bay, Dove Cove, Bennett Bay Japanese Garden Hillsides on east and west road Fog in meadows

From the trend table and the quantitative data related to the summary table, the information was synthesized into a qualitative summary report.

B. Critical Area Mapping and Vignettes

Two meetings occurred: one consisting of the LCG, the other meeting involved the entire Studio. Feedback was provided and applied to the study products for the purpose of revision and reconsideration. The summary report and table were incorporated into the development of the character inventory map. Members of LCG discussed the summary report and character inventory map in GIS based on review of the orthophotography and

spatial/visual characteristics noted earlier. New “what if” scenarios were envisioned: what might the character of the landscape look like in twenty years? Fifty years? What were the most representative themes for Mayne Island? In addition to the following LCG vignettes a vignette specifically tasked for the final studio presentation was created: its title was “Commercial Accommodation at Miners Bay,” and the intention was to address in visual format Mayne Island resident’s concerns for loss of view and over-development.

Accordingly, four scenario studies were chosen to explore future “what if” options involving landscape character. These were:

Housing Types

To provide selected options for affordable and sustainable housing that is in context with the determined character typologies of Mayne Island.

- architectural type
- clustered

Miners Bay Road Corridors & Miners bay Density & Commercial Tourism Options

Enable some element of change, but maintain the unique historical character of Miner’s Bay.

Open Landscape Spaces

To demonstrate future variations of landscape typology and attention to landscape features in comparison to what is prescribed in the current OCP

Sketches or Photoshop conceptual visualizations were generated appropriate to each above category to present: “existing condition,” possible “future condition - A” and possible “future condition - B.”

A critical area map was developed from the character mapping and other results to highlight character zones and features with particular sensitivity or potential for improvement (see Section 4.3). A PowerPoint was developed, specifically for the final presentation. All products were reviewed, including rendered vignettes, by the studio instructor and teaching assistant.

3.0 Mayne Island Character Survey, Memory Mapping and Analysis

The following is a summary of the analysis conducted for:

- Residential survey responses
- Residential responses to the “Memory Maps”
- “Visitor” responses to Character Survey Questions of written survey and “Memory Maps”
- Resident responses written on to posters at the Open House

3.1 Summary of Survey and Open House Results

[refer to r “Mayne Island Survey Percentages” spreadsheet data submitted with this report]

The open house was held on March 20th, 2005 at the Agricultural Hall on Mayne Island in order to share the character analysis and findings with community members and to receive additional information and input. Of 65 residents in attendance, 33 survey responses were returned and three emailed responses were received at a later date. A total of 36 responses overall.

The landscape character group asked two questions on the survey:

1. Mayne Islanders were first asked to identify those features, places or impressions of Mayne Island's landscape that are *likeable* and considered *important* to the character of Mayne Island
2. Mayne Islanders were asked to identify those features, places or impressions of the Mayne Island landscapes that they personally *disliked* or which seem out of *character*.

Many themes of nature, rural, views, culture and specific events and locations emerged. Notable percentage of respondents mentioning a given item identified the following themes:

- ambient and ephemeral qualities of Mayne Island, with 22% of the total respondents commenting on the silence and tranquility

- rural and island history (11%)
- a high emphasis on the Miners Bay village centre including the church, the Springwater Lodge and the Agricultural Hall
- farmers market as a cultural & social event
- Mt. Parke is mentioned 14% of the time and Bennett Bay and Edith Point are also mentioned often
- Ocean views (14%) and open spaces are important and valuable natural components of the island. At 22%, beaches were the highest rated and then farms at 17%. Bays, parks, forest and islands are also substantially rated
- 19 % felt that roads were too narrow and unsafe, therefore requiring a shoulder or designated walking path
- 17% of the responses indicated low-density housing as well as limited commercial development that would be clustered and village oriented
- An overwhelming 38% felt that clear cuts on the island were negative and insensitive and 17% preferred the parts of the island that felt pristine and unspoiled.
- Individual expression in architecture was positive except where there was junk visibly collecting in front yards etc. The context of buildings and the use of materials is addressed 14% of the time.
- Appropriate materials, scale and siting of the buildings are all concerns; as is the confusing ferry signage and welcome (or lack there of).

In summary, "**rural**", "**views**", "**culture**", and "**geographic features**" appear to constitute those themes which best describe Mayne Island's landscape: what is likable and important to its character. Diverse geographic features such as forests, valleys, open fields and ocean-shoreline are physical geographic features were frequently mentioned in the survey. Physical features are also associated with walking trails and other recreational and **natural** areas that provide for enjoyable opportunities in which to observe diverse nature, including a diverse avian population. Many responses regarding the '**rural**' are oriented towards the ambient and ephemeral qualities of on Mayne Island, with 22% of the respondents commenting on the silence and tranquility. The quiet, rural feeling is enhanced by the presence of tree-lined roads as well as the island's dark-nights.

Ocean views constituted 14%. Favorite views include vistas along the road extending from the Lighthouse to Miners Bay, as well as the one between Fern Hill and Bennett Bay. Scenic beach views at locations in Bennett & Horton Bay are enjoyed but private views and beach access are becoming concerns, since these sites appear to be increasing in number. At 22% beaches were the highest rated **nature** component with farms, bays, parks, forest and islands are also substantially rated. 17% preferred the parts of the island that felt pristine and unspoiled.

Special places also ranked highly with a high emphasis on the Miners Bay village centre including the church, the Springwater Lodge and the Agriculture Hall. The Agriculture Hall and Farmers Market are also important aspects of Mayne Island's **culture** and social events. Mt. Parke is mentioned 14% of the total surveys and Bennett Bay and Edith Point are also mentioned often.

Other places of special value on the Island include Robson Farm, Deaconville Farm, Hardscrabble Farm, O'Brien's Farm. These open spaces are historically important and valuable **rural and cultural** components of the island with a preferable rating of 17%. The Library, Community Centre and Bakery are all important gathering places.

There were many responses regarding the **built environment** of Mayne Island. Both residents and visitors felt the ferry terminal requires an atmosphere that is more welcoming and less confusing regarding signage. Of the 36 respondents; 19 % felt that roads were too narrow and unsafe, therefore requiring a shoulder or designated walking path. Regarding residential density, 17% of the responses preferred low-density housing as well as limited commercial development that would cluster and be village oriented. This low density, low commercial development and low traffic volume all contribute to this feeling of **rural**.

Residential architecture that displays the creative expression of the individual resident, yet also complements the surrounding landscape is most preferable however the definition of 'complement' is likely, subjective. Residential styles of architecture indicated as those that do not complement the island context and are considered unacceptable include, excessively dimensioned homes, paved driveways, exposed RV trailers and visible junk. The context of buildings and the use of materials is addressed

14% of the time. Appropriate materials, scale and siting of the buildings are all expressed concerns.

Some of the strongest responses are about a **sense of caring** on the island. Lack of care is exhibited by the following items. Large burn piles left behind from logging operations, unused items left on properties, Felix Jack Road, an overwhelming 38% felt that clear cuts on the island were negative and insensitive.

3.2 Memory Map Data

[refer to the “Memory Map – Visitor / Residents” and spreadsheet “Mayne Island Memory Map Summary of Results”]

Further to survey questions, residents were asked to draw a “Memory Map” of Mayne Island. The objective of this exercise was to obtain an individuals spatial knowledge and identify the location of other “special places” which might not be discovered through other mapping and information gathering exercises conducted by the landscape character group. The following points summarize the results of memory map data for both residents and visitors:

- “Visitors” have less knowledge or familiarity of Mayne Island. Places where visitors traveled or stayed were more likely to be memorized.
- “Visitors” were not as well orientated and aware of Bennett Bay, Campbell Bay, and Dinner Bay in comparison to residents
- Residents were most descriptive of Mayne Island’s bays. The roads and ferry terminal were not mentioned frequently in comparison to “visitors”.
- The outstanding points (Mt. Parke ridge), parks, farms and forest (vegetation), and Miner’s Bay were frequently recalled in memory and imaging by both residents and “visitors”

3.3 SWOT Table

The following strengths, opportunities, weaknesses and threats (SWOT) was compiled from survey, memory maps and site analysis data.

Landscape character	Current strengths	Current weaknesses	Future opportunities	Future constraints
rural	<ul style="list-style-type: none"> - rural history -dark night and star gazing -easy, slower pace of life -clean, quiet, small, -friendly people -low density/big lots -low commercial density -tree lined roads -no urban road structure (curb, sidewalk, lighting) - narrow winding roads 	<ul style="list-style-type: none"> -spread out development encourage automobile transportation -no road accommodation for pedestrians and cyclists 	<ul style="list-style-type: none"> -preservation of large and historic fields -encouragement of further agricultural development -maintenance of appropriate ratio of open/forested space 	<ul style="list-style-type: none"> -unrestricted commercial and residential development -widening of roads and construction of curbs, sidewalks -loss of open spaces and fields due to development or forestation
Landscape character	Current strengths	Current weaknesses	Future opportunities	Future constraints

nature	<ul style="list-style-type: none"> -forests, valleys, open fields, ocean-shoreline -walking trails -avian species diversity -topographic/ecological diversity -bays, beaches, islands -distinctive arbutus trees -sparsely developed uplands 	<ul style="list-style-type: none"> -conspicuous logging -invasive plant species from home gardens 	<ul style="list-style-type: none"> -conservation of significant forested areas and distinctive trees -encouragement of native vegetation for residential planting schemes -improved public access to bays and beaches and views -preserving forested uplands 	<ul style="list-style-type: none"> -loss of forest areas due to aggressive logging or sprawling development -loss of natural areas due to road-widening, fire, drought, climate change, etc.
culture	<ul style="list-style-type: none"> -historic buildings -Agriculture Hall, St.Mary Magdalene, Miner's Bay dock, Springwater Lodge, Mayne Inn, old school, Trading Post, ferry, lighthouse -historic land (farms and parks and Miner's Bay) -the presence of the ferry -individual expression, eclectic homes -festivals and events 	<ul style="list-style-type: none"> -lack of entertainment for large age range -some neighborhoods very private and isolated -lack of pedestrian culture 	<ul style="list-style-type: none"> -heritage preservation of Miner's Bay -designation of heritage trees -encouragement of eclectic designs -potential for central square or gathering place in Miner's Bay 	<ul style="list-style-type: none"> - loss of historic character due to inappropriate development

landscape character	current strengths	current weaknesses	future opportunities	future constraints
special places	-some special places for residents and visitors: Mt.Parke, Robson Farm, Deaconville Farm, Agriculture Hall, library, bakery community centre, Hardscrabble Farm, O'Brien's Farm, arbutus bluffs, Edith Point, Helen point, Georgeson, Curlew, Samuelson, Belle Chain Islet, Horton Bay, Daffodil Meadow (Raisford), archeological midden sites, the Japanese Garden, heritage orchards	-ferry terminal -Felix Jack Road	-improved sense of arrival and atmosphere at ferry terminal -less confusing signage -maintaining crucial edges	-loss of intimate quality by overpopulation and tourism

views	<ul style="list-style-type: none"> -vistas along the road extending from the Lighthouse to Miners Bay and between Fern Hill and Bennet Bay -views at bays (Bennet & Oyster Bays, Dinner Bay, Campbell Bay -Georgian Point -views of Active Pass and ferry -the night sky 	<ul style="list-style-type: none"> -private shorelines and views -imposing homes -forestation 	<ul style="list-style-type: none"> -opportunity to open views to water and surrounding islands from heavily planted roads and hills -discouraging future private development along shorelines -creating a public buffer 	<ul style="list-style-type: none"> -loss of views to uncontrolled development, privatization and forestation
sense of caring	<ul style="list-style-type: none"> -pristine/unspoiled landscape -individual sense of style and expression (eclectic homes, materials, signage, etc.) - charming mail boxes, family signs, artwork -innovative/sustainable design (cob houses, cisterns) 	<ul style="list-style-type: none"> -large homes, paved driveways, exposed RV trailers and visible junk -clear-cut logging -Felix Road referred to as 'scar on the landscape' -individual water-wells and vacation rental-units -Mayne Inn renovation/construction 	<ul style="list-style-type: none"> -development that has "village" sense -encouragement of eclectic designs 	<ul style="list-style-type: none"> -monster homes -clear-cut logging -tourist development that is out of place or fleeting

landscape character	current strengths	current weaknesses	future opportunities	future constraints
built development	<ul style="list-style-type: none"> -housing architecture which displays the creative expression of the individual resident and complements the surrounding landscape -diffused development and winding roads -subtle spatial structure, no urban rigidity -historic buildings 	<ul style="list-style-type: none"> -homes and properties that don't fit with surrounds (large houses, paved driveways, etc) -buildings that obstruct or claim views -Mayne Inn development is disliked -lack of low-income housing -empty, seasonal home are disliked -parking in front of stores (large parking lots) -ferry terminal -no room for cyclists on roads -narrow roads without sidewalks / bike paths are dangerous -lack of orientation, way finding, no hierarchy or spaces or roads 	<ul style="list-style-type: none"> -development of low income housing or cluster housing -shoulder on road for walking and cycling lane (perhaps only at blind curves) -increase structure and density at Miner's Bay and Ferry Terminal density (with "village sense") -homes that reflect individual expression / eclectic styles -set backs from shoreline to encourage ecological integrity and public access 	<ul style="list-style-type: none"> -further land-subdivision (suburban feeling) -widening of roads would destroy rural character -large residential, commercial, tourist development (out of scale) -uniform housing developments (suburban quality) -increased residential and commercial sprawl -uncontrolled and unstructured population and housing density

4.0 MAYNE ISLAND CHARACTER MAPPING

For the following section, refer to GIS files provided to the Islands Trust.

4.1 Site Analysis and Character Inventory Map Summary

(refer to “Site Analysis and Inventory” map)

- Mayne Island can be described (therefore characterized) primarily by its topography, vegetation (forest cover), bays, neighbourhoods and its views (to water and inward)
- Landmarks, icons, or special places tend to be culturally associated and of historic significance, or of recreational / restorative value (access to nature)

4.2 Character Zone Map

(Refer to “Landscape Character Zone Map” and “Character Zone Descriptions”)

- The Mayne Island character zone map includes 20 different character zones which reflect the experiential qualities generated by rural, views, nature, open space, building development, and sense of caring.

The character zones are as follows:

Uplands

Provides views on/off the island, low density and sparse development, characterized by forested slopes, elevation and constitutes a significant portion of Mayne Island, a prominent prepositional place (up, high, above), also acts as a landmark or buffer between to types of land areas

Forest Cover

Little to no development, varied topography, characterized by emersion and refuge, significant forest cover, dark and enclosed, ecological

Ridge Top

Highly visible, key views on/off the island, prepositional place (up, on top), overlooks, forest cover, natural park, refuge

Ridge Bottom

Sparse tree cover, private, protected, view of steep slope and ridge top

Valley Strip

Sparse residential, open land with sparse tree cover, linear character, defined by valley and view of higher elevation, flat

Open Rural

Large swaths of flat, cleared land (pasture or meadow), open vistas, little or no development, great contrast to forest land, historical significant, valuable to community

Miners Bay

Historical island center, heritage buildings, mix use (residential, commercial, tourist, civic), open, public views of Active Pass, ferry's, sound ferry

Scenic Strip Miners Bay

Open road view to water, exposed, transitional, between Miner's Bay and forest land/development

Horton Bay

Waterfront residential development, enclosed bay, low elevation/proximity to water, intimate feeling, dark/dense tree cover, framed views of ocean.

Dinners Bay

Elevated, ridge top, residential development, exposed/public feeling, sparse tree cover, short setback from road, ocean views, gentle slope.

Bennett Bay

Mixed use (tourist/residential/commercial), clustered development, water focused, gentle slope/flat, public feel, exposed, short setback from road

Georgina Point

Exposed, open outward (prepositional placement), above, views out to water, historic aspects, enclosed by forest cover edge

Waterfront Residential

Water front residential development, private ocean, views, highly visible from water, dense tree cover, sloping properties, private feeling, separate and varied topography

Ridge Residential

Sparse enclosed residential development at the foot of ridge, loose tree cover, private, characterized mainly by the view of a steep slope and ridge top, valley

Interior Residential

Varied topography, mixed multidirectional views, dense tree cover, private/enclosed residential development, large set back from roads

Pastoral Residential

Varied gentle topography, mix of cleared land and tree cover, low density development, small plots of working agricultural land

Felix Jack Road

Sporadic roadside residential development, disconnected, clear cut areas, abrupt edges.

4.3 Critical Area Map (CAM) Summary

(Refer to “Mayne Island Critical Area Map (CAM)”)

The CAM map illustrates the priorities or critical areas of Mayne Island that are sensitive to change, these include:

Feature	Rationale for Sensitivity	Key Places
historic sites	setting a context for future development, provides a sense of place in the larger “scheme of things”, contributes to identity of residents and the island, a “timepiece” (but shouldn’t become stagnant or a museum)	Punch’s land, Windover Farm barn, Miners Bay historic buildings and pattern of rural random density, Japanese wall (relic), Lighthouse
bays	generates specific communities, bounds and encloses, safe and secure, a comfortable transition between open ocean and land, even the shape of the bay is an inherent social structure (circle, gathering)	Miners Bay (historical), Horton Bay (inward), Bennett Bay (distinct multi-use), Campbell Bay (natural, restorative content)
Residential areas	provide a sense of identification for individuals, indicate a level of caring	shoreline residential areas, scales, density, clearing, siting and setbacks
Views	locating and wayfinding, place on an island, a front (positioning the body), experientially expanding and provides prospect	Shorelines Uplands, ridges and other areas of significant abrupt changes in topography Horton Bay and Campbell bay (views into itself)
Ecological elements	provides a restorative value, placement (ecozone), sustainability and ecological state, connection to natural spaces	Edith Point (National Park), Mt. Parke, First Nations reserve land

A small, separate CAM map was constructed in order to illustrate the importance of topographic elements and conditions of edge, buffers and boundaries as prominent underlying layers that contribute to the character of Mayne Island.

Feature	Rationale for Sensitivity	Key Places
topographic elements	fosters prepositional placements, provides a sense of place, wayfinding, landmarks, defines edges, buffers, divides and connects spaces	Uplands (for preservation of views on/off the island), significant valleys / open spaces (Punch’s land – sense of opening up providing arrival, daffodils, under the ridge), Georgina Point, beaches
edges, buffers, boundaries	key places of activity, provides connections for separate areas, often these are the places most imageable to people in general and make places what they are	edges bordering Mt. Park, forest edges adjacent to Punch’s land, Village Bay Road, edge surrounding First Nations land, shorelines, ridge at Mt Parke

In addition, a small zone map was inset to demonstrate the critical areas in conflict with current Mayne Islands OCP and Land Use Bylaw zoning which was a component used to identify “critical area 1” and critical area 2” (see the following section 4.3.1).

4.3.1 CAM Legend

Under existing zoning and current activities/trends occurring on Mayne Island

Critical Area 1

Critical Area 1 describes areas on Mayne Island that are particularly sensitive to change. The areas maintain significant aspects of characteristic qualities that have been identified (in the Character Zone Map) as relevant to the special character of Mayne Island. This category does not suggest that these areas cannot sustain any change, but instead prioritizes and highlights key features and qualities crucial to consider when applying any change. Essentially, this category states that within critical area 1 exist character elements that are “at risk” of being lost and therefore, require some extra recognition.

Critical Area 2

Critical Area 2 describes areas on Mayne Island that currently contribute to Mayne Islands character, however, are flexible to changes, would be improved by changes to existing edges or transitional zones, thereby better supporting the special character of Mayne Island.

Other areas on Mayne Island are considered appropriately zoned and covered under the current Official Community Plan (OCP).

5.0 Recommendations

Landscape character is difficult to frame and therefore a challenge to map and analyze. Nonetheless, there is no argument it is extremely important to Mayne Islanders and its disappearance has the potential to yield a sense of loss and ignite significant debate.

As discussed above, the landscape character of Mayne Island is defined by attributes of "rural", "views", "culture / special places", and "geographic features". Special consideration has to be provided to what it is that constitutes these themes. These are pronounced topographic places, edges, transition zones, buffers, access to views, 'public space' and historic value. At present, the Official Community Plan (OCP) and Land Use Bylaws do not adequately address these aspects.

Recommendations for future work:

- Field-check "*character zone*" boundaries
- Develop area specific guidelines for landscape character zones in "critical area 1"
- Specifically identify, map, and develop future strategies for treatment of "edges", "transition zones" and "buffers" within landscape zones
- Review and expand OCP guidelines to include sub-zoning or land use guidelines of significant topographic features and their adjacencies
- Consider defining and developing guidelines for a new zone of 'historic district' (Miner's Bay and other historical elements identified)
- Review and develop guidelines for the protection of views to water (along shorelines) for both private and publicly owned land
- Improve public access (views, shorelines, footpaths in pastoral lands)

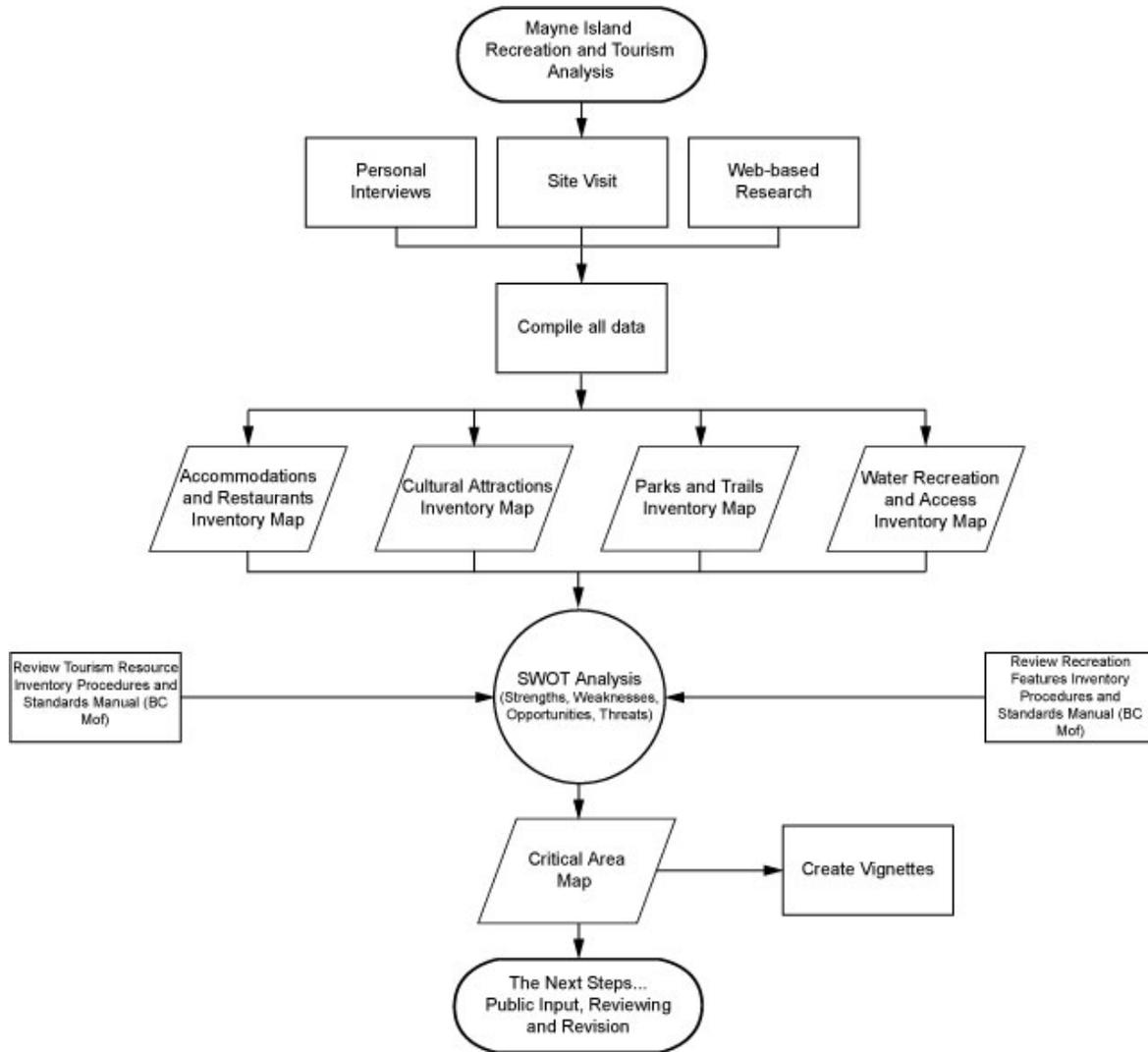
2.2 Recreation and Tourism

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1.0 METHODOLOGY



2.0 SITE ANALYSIS

2.1 MAPS

Included with GIS Data

2.2 REFERENCES

General

www.mayneisland.com
tourismmall.victoria.bc.ca/mayne-island.html
<http://www.mayneislandchamber.ca>
<http://www.mayneislandbc.com/>
Personal Interviews
Various pamphlets
Site Visit

Accommodations

<http://www.mayneisland.com/accommodation/index.htm>
<http://www.mayneislandchamber.ca/accommodation.htm>
http://gulfislands.com/acc_mayne.asp

Restaurants

<http://www.mayneislandchamber.ca/restaurants.htm>
Various pamphlets
Site Visit

Cultural

Various Pamphlets
http://gulfislands.com/arts&crafts_mayne.asp

Recreation

www.bluevistaresort.com/kayaking
www.bluevistaresort.com/other_activities.htm
www.mayneisland.com/camp
www.pc.gc.ca/pn-np/gulf/visit/visit2b_e.asp
<http://www3.bc.sympatico.ca/kerryw/scuba/gulfisl.htm>
<http://www.bcadventure.com/adventure/kayaking/seakayak.htm>
<http://www.mayneisland.com/places/trailguide.htm>
Various pamphlets
Site Visit

3.0 SWOT ANALYSIS

3.1 STRENGTHS

Geography

- Only 1.5 hours to Vancouver and 1 hour to Victoria via BC ferry service
- Close to other major gulf islands via BC ferry service
- Close to numerous other small islands via boat and kayak
- Distinct island character that is geographically diverse: mountains, beaches, forests, and farmland
- Mixture of accessible and wilder areas
- Has more sheltered bays than most gulf islands
- Size is ideal for both weekend and day trips
- Climate allows for year-round activity
- Rich history with visible features and landmarks
- Waters to north, northwest and southeast designated as Important Bird Areas, in particular for migratory and winter birds

Existing Recreation Infrastructure

- Hiking trails at Mt. Parke park
- Other short hiking trails and foreshore walks on the island
- Kayak, bike and scooter rental facilities
- Numerous marine facilities including government docks and beach access points
- Sports fields and tennis courts
- Excellent scuba diving opportunities off Georgina Point, Crane Point and in Gallagher Bay
- Many community festivals and events, particularly in summer
- Private campgrounds

Existing Tourism Infrastructure

- Wide variety of accommodations including resorts, inns, Bed and Breakfasts and vacation rentals
- Several dining opportunities including pub fare, bakery, cafes and fine dining
- Museum located at Miner's Bay
- Georgina Point lighthouse
- Japanese garden at Dinner Bay Park
- Some small scale but well-known cultural businesses (i.e. artists studios, etc)

3.2 WEAKNESSES

Arrival Sequence

- Sense of arrival and visitor information missing at Village Bay

- Size of parking and line-ups at Village Bay, although necessary, overpower island character

Transportation and Orientation

- Although Miner's Bay is the primary hub of commercial activity, it is not easily accessible by foot
- Lack of clear signage or other means of island way finding
- Difficult for island visitors to obtain information about recreational opportunities
- No easily accessible, central location that provides a diverse array of active recreation and leisure activities

Recreation Issues

- Small number of certain types of recreation facilities (i.e. tennis courts)
- Limited length of official public trails
- Small number of public beach access points
- Lack of access along shoreline above high-tide mark
- Fewer community events in the winter months
- Few, if any, designated bike pathways
- No public horseback riding trails
- No public camping facilities
- Safety issues while walking or cycling along narrow island roads
- Majority of island land is private, creating limited opportunities for public parks and recreation

Tourism Issues

- Few economical places to stay (i.e. hostel style accommodation)
- Little variety in year-round tourism
- Limited dive services

3.3 OPPORTUNITIES

Tourism

- Small heritage/history tours, art studio tours and farm tours
- Enhancement of community space for festivals and celebrations
- Creation of revenue and jobs through enhancement of tourism opportunities and cultural services
- Winter-bird watching and diving facilities and services

Land Protection Potential

- Protection of relatively undeveloped land through voluntary conservation covenants
- Expand areas for nature experience and viewing
- Expansion of Mt. Parke Park to include all or most of the ridgeline

- Enhancement of views to water in conjunction with selective logging practices
- Largely undeveloped peninsulas as attractive natural recreation destinations, for hiking and naturalist activities

Pedestrian Transportation

- Expanded trail system that links recreational facilities, neighbourhoods and tourist attractions; could be linked with new subdivision development)
- Regional trail development from Mt. Parke Park to Village Bay
- Off-road, pedestrian only pathway between Miner's Bay and Village Bay

Recreation

- Enhance island cycling route by linking roads with multiple-use trails as way to create uninterrupted route around island perimeter
- Enhancement of beach access points and other coastal recreational opportunities for improved water access
- Creation of a unified sign system that facilitates way finding
- Expansion of existing sport and recreation facilities to create attractions for all ages
- Interpretive/historic trails

3.4 THREATS

Change in Island Character

- Construction of large private homes located behind high fences, occupied only parts of the year by non-residents
- Loss of historic character of Miner's Bay with increasing scale of commercial development

Tourism Impacts

- Increased tourism development on key views and island infrastructure
- Visitor/resident conflicts
- Traffic congestion and safety
- Stress on local services including fire, ambulance and waste removal
- Stress on local resources including water
- Development scales that are outside of island character and densities

Open Space and Parkland

- Decrease in amount of land available for recreation with increased housing development
- Damages to trail system with increasing use
- Possibility of limiting access to informal trails due to increased use
- Loss of ecological integrity
- Impacts of clear-cut logging on recreational use

Transportation

- Changes to ferry service (i.e. increasing or decreasing service; limiting or extending vehicular service)
- Present roadways will not safely handle a large increase in recreation traffic
- Increase in road width/traffic improvements impacting the present landscape character

4.0 OPEN HOUSE NOTES (Summary of Attendee Comments)

In General

- Tourism on Mayne Island is dependent on the ferries and there are only so many spots available for Mayne Island on each ferry. The cost of getting here and the hassle leaves a lot of people uncertain if they want to come here
- More tourists mean a higher demand on our water supply; but if we were to organize ourselves and begin catching surface flow there would be lots of water
- We must organize tourists to leave as small a footprint on Mayne as possible
- Possible winter activity might be beachcombing as well as golfing since farmland, zoned as it is, is hard to make a living off of. A good marina might draw a lot more year-round tourism
- A world-class resort for these higher-income bracket sort of activities would also be useful, especially in trying to maintain a diversity of economy
- Campbell Bay beach is well known, as is Piggott Bay, as excellent swimming places
- Islanders should get amenities when subdivision of land happens

Camping

- There are currently no legal camping sites but three unofficial ones. Some people think that this is adequate
- Prefer rustic camping although there would be a big problem with camp fires in the summer
- There have been problems in the past with university students coming over, partying hard, leaving garbage at the campsites and causing a disturbance
- Although there appears to be a demand for an increase in campsites on Mayne (one person mentioned that there was once a few campers who set up their tents outside the Ag Hall since the visitors had nowhere else, or didn't know where else to camp). It appears that Mayne Islanders would approve of a certain amount of camping if proper facilities were provided, if the campers had respect for their island and camp sites were monitored in some way
- Camping is just trouble, it brings in the options for cheap places to stay which brings in university students who drink and race their cars around. These kids bring problems to the ferry service as well, being abusive to the ferry crews and creating trouble
- People arrive here off the ferry at 10 at night and they don't know where to go, so they end up camping wherever; like at the ends of roads and places where they shouldn't

- RVs just aren't in keeping with the character of Mayne Island

Trails along Main Roads

- Many Mayne Islanders agree that it's necessary to have a path that runs along the main road which is for cyclists and pedestrians
- They don't want a paved/asphalt road or sidewalks
- Many people agreed that it would be a good idea to have bike rentals at the ferry terminal but owners of the Blue Vista pointed out that the roads are quite windy and steep and only more experienced cyclists would enjoy biking around the island. These types of people would most likely have their own bikes
- Bike rentals are costly to the provider because of insurance, but also because no one who needs to rent a bicycle is really a bicyclist and Mayne's hills are too steep to be enjoyable to only an 'occasional' cyclist
- People felt that it was especially important to have a bike route to the ferry (Fernhill)
- People scared to walk along the road at night
- There's an especially dangerous corner to walk along on Village Bay Road and people have actually created another path off the road
- Someone wanted doggy bag stations along the road
- It is not safe for mother's and children to walk anywhere on Mayne
- A path up higher, in the salal, is better than a path along the side of the road
- I view the potential material of this road as being either bark chips or gravel. Most important from Village Bay to Miner's Bay
- Ideas: rent electric bikes/scooters (that can't go very fast) to ride around the island with more sustainable, easy to ride, path off the main road to ride on, will cater to all fitness levels
- Path with reflected lights on it, no sound pollution, cars and pedestrians can see path

Parks and Trails

- We do need more parks
- We don't want Mayne Island with trails spread out everywhere
- Trails now in parks are not enough
- New trails can expand within parks
- Trails go through farms bothering private property
- No room for trails between Village Bay and Miner's Bay
- We don't want to see trails go through our property, in front of our windows or backyards
- Some newest trails make no sense
- People are just too used to privacy; they don't want people even near their land let alone on it

- A good place for a short cut would be from Piggott Bay to Miner's Bay around Mt. Parke
- It is not always desirable to allow people into the center of the island, into the secret places of the island, because the locals know where and how to get from place to place if they need to, and when and where to harvest, say mushrooms, but we don't want it made obvious to everyone. And also the possibility of fire in the dry summer months as well as the damage to the ecosystem when too many people trample through
- Beach access points are not very obvious and often purposefully neglected, and in many instances this leaves the beach healthier
- We have almost maximized the trail potential on Mayne simply because of land ownership and the unwillingness of land owners to allow passage or co-operate
- Beach access points though, have a lot of potential especially along St. John's Point, for increased linear activity
- Pender has good trails...

Cycling Trails Off The Main Road

- Negotiating easements is very important for gaining access through parcels of privately owned land
- There was a suggestion of a cycle route using the lower trail in Mt. Parke Park
- A lot of opposition for bike trails off the main road since travels through private land (especially mountain biking trails on the two hills – not a chance
- Some people have livestock, worried they will escape if trail built on their property
- Some people have problems with existing trails that run in front of their house on beaches that are public access
- Possible to connect main roads for bike access but trails need adjustments according to private land owners
- A trail was suggested which goes straight from Village Bay to Mt. Parke Park

Boat Launch Areas

- We have to correct water access points shown on the map
- David, Horton and Village Bay locations

Marina

- The Islands Trust is proposing a marina at Horton Bay (get rid of the old one)
- There was concern from one local about the construction of a marina

- People who live in the mainland don't have access to a dock and need to tie their boats to mooring buoys. There are many buoys scattered in the water that have been abandoned (concrete blocks in the water could cause pollution). He has to go to Sydney to repair/upkeep his boat since no facilities exist on Mayne Island. Other people with boats simply dump toxic substances into the water because there are no facilities. It's a pain to get to his boat as well. A marina would make a lot of sense since it would help to prevent this from happening and be easier, especially for those who don't have their own docks
- Ideas: research green marinas

Golf Course

- Although there is a bylaw that forbids golf courses on Mayne Island, there are several members of the community who are for it
- One local suggested that an appropriate spot was the valley below the ridge on Mt. Parke. The ridge and valley are privately owned. A few locals tried to buy the ridge and valley so that no future development could occur on it but it ended up being too expensive. He thinks that if a sustainable, drought-resistant golf course was suggested, it would remain as a green space and other locals who want a golf course would pitch in and buy off the private land

Ferry Terminal

- Quite a few people liked the idea of bike rentals and repair shop at the ferry terminal although there is a concern for demand (steep hills)
- There was definite consensus that the ferry terminal could be improved to make it more accommodating to locals and tourists
- When people are waiting in their cars for the ferry, there is nowhere to go to socialize and grab something to eat (besides vending machines)
- Someone didn't think it was necessary to have vendor stands since he thought there was enough at other parts of the island and thought that it would create too much congestion
- Ideas: build a sheltered area with restaurant/café

Floating Docks

- One woman preferred that children created their own water activities and thought it wasn't necessary to have a floating dock

Commercial Development At Miner's Bay

- If development does occur, have it away from the beach, cluster development
- Some people opposed since it gets crowded enough during the summer

- Lack of sufficient parking
- People walking on the street
- People coming from the ferry usually need to pass through Miner's Bay during high tourism season
- Temporary tents and shelters have already been used on Mayne Island during high tourism season
- In summertime, there are a lot of cars overwhelming Miner's Bay. It is a problem of more cars than people
- There should be resolution to get people out of Miner's Bay before they arrive at Miner's Bay
- No more development along the beach since there is no room. All are private lands
- No more development along the main road
- Development along main road is ok. Cluster is better than spreading out
- Maybe one more small restaurant, one more small coffee bar, one more overnight hotel in Miner's Bay
- Keep Miner's Bay as it is
- Limit the water access in Miner's Bay
- More parks waterfront
- Ideas: develop area by community center so that people don't have to go to Miner's Bay...reduce congestion

Georgina Point as Tourism Node

- Someone was concerned about access
- Georgina Point already has tents set up along lawn for special occasions such as weddings, art shows, etc....events that the Lion's Club puts on. Miner's Bay and the community center also have spots where tents are set up for certain occasions
- Not really a demand to expand this area
- People not really aware of shipwreck
- Area dangerous to swim

5.0 CRITICAL AREA MAPPING

5.1 CRITERIA AND POTENTIAL USES

EXISTING RECREATIONAL AREAS

Criteria

These are land units designated as Recreation in the existing OCP.

Importance/Use

These are highly visible, sensitive land units, such as parks, that require special attention or recognition in any adjoining planning or development proposals. Adjacent areas require more detailed design guidelines as they pose a greater risk. Potential issues on adjoining lands could include: building scale, tree clearing, water and drainage issues, etc.

EXISTING COMMERCIAL ACCOMMODATION

Criteria

These are land units designated as Commercial Accommodation (C2) in the existing OCP.

Importance/Use

These areas require detailed, site-specific, design guidelines to ensure that they remain within the scale and rural quality of Mayne Island.

HIGH NATURAL RECREATION OPPORTUNITIES

Criteria

These are land units that are:

- a) identified within the Sensitive Ecosystems Inventory and
- b) possess high ecological values that provide interpretive/recreational opportunities on Mayne Island.

Importance/Use

Land within this designation has excellent opportunities for nature interpretation, hiking, birding and other low intensity, passive outdoor recreation. These areas could be acquired through acquisitions or easements as well as through future land donation. Landowners could also enter into voluntary conservation covenants, including the Natural Area Protection Tax Exemption Program (NAPTEP).

MEDIUM NATURAL RECREATION OPPORTUNITIES

Criteria

These are land units that have some, but relatively minimal, development and also possess ecological values that provide interpretive/recreation opportunities on Mayne Island

Importance/Use

Land within this designation has good opportunities for nature interpretation, hiking, birding and other passive outdoor recreation. These areas could be

acquired through acquisitions or easements as well as through future land donation. Landowners could also enter into voluntary conservation covenants, including the Natural Area Protection Tax Exemption Program (NAPTEP).

COASTAL RECREATION OPPORTUNITIES

Criteria

These are larger waterfront land units that exhibit the following qualities: considerable potential beach access, geographic variability and minimal existing development.

Importance/Use

These areas are those that could become additional beach access points, providing access and opportunities for shoreline and beach walking. Access to these areas could be acquired through acquisitions or easements as well as through future land donation.

HIGH MARINE RECREATION OPPORTUNITIES

Criteria

These are locations within sheltered bays and coves, areas with underwater attractions and areas with high ecological values that are an asset to the recreational opportunities on Mayne Island high water recreation use

Importance/Use

These are excellent areas for swimming, low-speed boating, kayaking, fishing and scuba diving. High ecological value has been identified as a key priority for the fish, marine mammals and bird colonies that are a draw to naturalists and other recreationists, though they may require careful management of visitor impacts.

TRAIL ENHANCEMENT OPPORTUNITIES

Criteria

These are land areas that have lower density residential developments within varied topography and that make key connections to other critical areas on Mayne Island.

Importance/Use

This group identifies two scales of trail enhancement opportunities. The first is at the community scale. These areas have the potential for easements to create a connected trail system that would help to create an efficient, safe and interesting cycling/walking route. The creation of an off-road pedestrian route between Miner's Island and Village Bay would be a great asset to the island in terms of safety and walkability. The second is island scale trail enhancement opportunities wherein areas are identified where non-motorized trails would contribute to a whole-island cycling route. The goal in this instance is not to create an independent system, but rather to fill in gaps between existing roadways.

COMMERCIAL DEVELOPMENT OPPORTUNITIES

Criteria

These are areas on Mayne Island that have been identified as areas where some further commercial development could occur, based on clustering of other commercial activities and the proximity to recreation destinations.

Importance/Use

These include Miner's Bay and Village Bay. Expanded facilities could include further Commercial Accommodation land units and enhancements to the existing ferry terminal. There is a possibility for enhanced services at Village Bay including an artist's market for ferry passengers.

RECREATION FACILITY DEVELOPMENT OPPORTUNITIES

Criteria

These are existing recreation areas on Mayne Island that have been identified as areas where some further recreation facility development could occur, based on clustering with other recreation facilities and the proximity to residential concentrations.

Importance/Use

Types of enhanced use could include further sport facilities such tennis courts and public campgrounds. Potential siting criteria for public campgrounds include the following characteristics:

- peninsular location removed from higher density residential areas
- proximity to water
- views across water to other islands

Opportunities exist on St. John's Point and Dinner Point, although these are held as private land. A summer overflow area could be provided beneath Mt. Parke on unused agricultural land.

KEY RECREATION AREA BUFFERS

Criteria

These are areas surrounding parks and other sensitive recreation sites that exhibit key Mayne Island characteristics.

Importance/Use

These areas have been flagged as areas that require more detailed design guidelines as they are at greater risk of outside impact. Potential issues on adjoining lands could include: building scale, tree clearing, water and drainage issues, etc.

5.2 CRITICAL AREA MAP

Included with GIS data

6.0 WHAT-IF/VIGNETTE CONCEPTS

6.1 PATH AND BIKEWAY ALTERNATIVES

Current roads on Mayne Island are 2-lane without clear boundaries for pedestrians and cyclists.

- Pathways would be beneficial for safety as they decrease conflict between pedestrians and cars.
- Bikeways reduce interactions between cyclists and cars, and also increase safety.
- Bikeways are excellent for recreation and as a complementary transportation mode. Mayne Island has rolling topographic character and natural landscape, suitable for seasoned bikers.
- Electric bikes are great for shorter trips and steeper routes.
- The vignette study area is the road from Village Bay to Miner's Bay where there are current conflicts between pedestrians, cyclists and cars. The study may also apply to the rest of the roads on Mayne Island.
- 8 options will be given in the study, with various future possibilities for changes to the road layout

Existing Conditions (Village Bay Road)

Width of Roadway	6 m
Width of Right-of-Way	20 m
Height of Vegetation	30-35 m
Width of Shoulder	1m*

* Potential widening limit on each side of road, widening beyond this amount may affect the landscape character of the road corridor

Option A: No roadway widening, shoulder walkways (similar to existing conditions)

- Electric and regular bikes share vehicle lanes (6 m)
- Pedestrian walkway on both sides of road (1 m each)
- Advantages:
 - No change to existing landscape character
 - Separate pedestrian way increases walking safety, low safety concern for pedestrians
 - Least engineered solution allowing for short term resolution
 - Economically suitable for neighborhood roads with light traffic flow
- Disadvantages:
 - High traffic conflict on roads that have heavy traffic flows (i.e. route between Village Bay and Miner's Bay)
 - Highest safety concern for electric bike users and cyclists due to interference with vehicles, especially as number of users increase
 - Signs are necessary to give a guide for safe riding and walking, which may affect visual landscape

Option B: No road widening, off-road pedestrian trail construction

- Electric and regular bikes share vehicle lanes (6 m)
- Pedestrian walkway located off roadside, within right-of-way (1.2 m)
- Advantages:
 - No change to existing landscape character
 - Separate pedestrian walkway increases walking safety, least safety concern for pedestrians
 - Economically feasible
 - Suitable for neighborhood roads with light traffic flow
- Disadvantages:
 - High traffic conflict on roads with heavy traffic flows (i.e. route between Village Bay and Miner's Bay)
 - Highest safety concern for cyclists and electric bike users due to interference with vehicles, especially as number of users increase
 - Signs are necessary to give a guide for safe riding, which may affect visual landscape

Option C: No roadway widening, off road bike/walk trail construction

- Electric bikes share vehicle lanes (6 m)
- Regular bikes share trail with pedestrians (3 m, roadside within right-of-way)
- Advantages:
 - No change to existing landscape character
 - Separate bike trail increases walking and cycling safety and reduces interference between vehicles and electric bikes, least safety concern for cyclists and pedestrians
 - Economically suitable for neighborhood and community roads with light to medium traffic flow
 - Suitable for short-term development
- Disadvantages:
 - High safety concern for electric bike users due to interference with vehicles, especially as user numbers increase
 - Signs are necessary to give a guide for safe riding, which may affect visual landscape
 - Some grading and right-of-way tree removal may be required for bike path

Option D: Roadway widening, bike/pedestrian lane construction

- Electric bike shares vehicle lanes (6 m)
- Regular bikes share pedestrian walkway alongside roadway (1.5 m*)
 - * 0.5 m extension plus 1.0 m shoulder
- Advantages:
 - Separate pedestrian/cycling lane would somewhat reduce interference with electric bikes and vehicles thus increasing safety, cyclists and pedestrians

- Suitable for neighborhood roads with light traffic flow
- Disadvantages:
 - Expansion of roadway may affect landscape character
 - High traffic conflict on roads with heavy traffic flows
 - High safety concern for electric bike users due to interference with vehicles, especially as user numbers increase
 - Signs are necessary to give guide of safe riding and walking, which may affect visual landscape
 - Some grading and right-of-way tree removal may be required for bike path

Option E: Roadway widening, bike lane construction, off-road pedestrian trail construction

- Electric bikes share vehicle lanes (6 m)
- Regular bike lanes beside vehicle lanes (1.5 m*)
 - *0.5 m extension plus 1.0 m shoulder
- Pedestrian walkway located off road, within right-of-way (1.2 m)
- Advantages:
 - Separate cycling lane pedestrian trail would reduce interference with electric bikes and vehicles thus increasing walking safety; low safety concern for cyclists, least safety concern for pedestrians
 - Suitable for neighborhood and community roads with light to medium traffic flow
- Disadvantages:
 - Expansion of roadway may affect landscape character
 - High traffic conflict on roads with heavy traffic flows
 - High safety concern for electric bike users due to interference with vehicles, especially as user numbers increase
 - Signs are necessary to give guide of safe riding, which may affect visual landscape
 - Some grading and right-of-way tree removal may be required for bike path

Option F: Roadway widening, E-bike lane construction, off road bike/walk trail construction

- Vehicle lanes (6 m)
- Electric bikeway beside roadway (1.5 m*)
 - *0.5 m extension plus 1.0 m shoulder
- Regular bikes share pedestrian walkway (3 m, off road within right-of-way)
- Advantages:
 - Separate cycling/pedestrian walkway will reduce interference with electric bikes and vehicles; increase walking and cycling safety and increase recreational attraction; least safety concern for cyclists and pedestrians

- Separate electric bike lane will reduce interference with vehicles, thus increasing transportation safety; medium safety concern for electric bike users
- Suitable for roads with light to heavy traffic flow
- Disadvantages
 - Expansion of roadway may affect landscape character
 - Signs are necessary to give guide of safe riding, which may affect visual landscape
 - Some grading and right-of-way tree removal may be required for bike/walk path

Option G: Roadway Widening, bike/pedestrian lane construction

- Vehicle lanes (6 m)
- Electric and regular bikes share walkway with pedestrians alongside roadway (2 m*)
 - *1.0 m extension plus 1.0 m shoulder
- Advantages:
 - Separate bike and pedestrian lane will reduce interference with vehicles, thus increasing walking and cycling safety
 - Suitable for roads with light to heavy traffic flow
- Disadvantages:
 - Expansion of roadway will substantially affect landscape character
 - Shared bike/pedestrian lane along the road will increase potential safety problems with cyclists, electric bike users and pedestrians, especially with increasing user numbers; medium safety concern for electric bike users, cyclists and pedestrians
 - Least recreational attractions and opportunities along the road
 - Signs are necessary to give guide of safe riding and walking, which may affect visual landscape
 - Least economically feasible

Option H: No roadway widening, off road bike/walk trail construction

- Vehicle lanes (6 m)
- Electric and regular bikes share walkway with pedestrian on trail located off road, within the right-of-way (3 m)
- Advantages:
 - No change to existing roadway landscape character
 - Separate bike/walk trail increases safety of cycling and walking, least safety concern for electric bike users, cyclists, and pedestrians
 - Highest recreational attractions and opportunities along the road
 - Suitable for roads with light to heavy traffic flow
 - Economically feasible and suitable for long-term development
- Disadvantages:
 - Signs are not necessary but will be a good to guide of safe riding and walking, which may affect visual landscape

- Potential safety concerns between E-bikes and pedestrians
- Some grading and right-of-way tree removal may be required for bike/walk path

Recommendations

- For short term development, Option C is suitable according to its overall low safety concern for all users and economically feasibility.
- For long term development, Option H is suitable according to its high recreational opportunities and its overall low safety concern for all the users.
- For all kinds of development, Option G is NOT recommended due to its visible change of existing landscape character of the Mayne Island road corridor.
- Option A and B are suitable for short-term development under low traffic flow conditions and during off-seasons.
- Option D, E and F are generally NOT recommended unless local site landscape character would not be negatively affected.

Information Sources

British Columbia Ministry of Forests. 1991. Recreation Manual, Victoria, BC.

Ramsey/Sleeper Architectural Graphic Standards. 1994. New York: J. Wiley.

Harris, Charles W., Nicholas T. Dines and Kyle D. Brown. 1998. Time-Saver Standards for Landscape Architecture: Design and Construction Data. New York : McGraw-Hill.

Ministry of Transportation and Highways (Moth) and The Islands Trust (IT). October, 1992. Letter of Agreement: Road Standards, Classification and Moth/IT Consultative Process in the Islands Trust Area.

Mayne Island GIS database

Open House feedback

Field observation on Mayne Island

6.2 ELECTRIC VEHICLES FOR ISLAND TRANSPORTATION

Advantages

- Sustainable
 - Zero Carbon dioxide emissions
- Appropriate for all ages and fitness levels
 - Mayne island has quite hilly roads and locals often need to use gas powered vehicles to get around the island. If one wanted to cycle to parts of the island, you would have to be in fairly good shape to do so. Electric vehicles would be ideal for Mayne Island since it caters to a range of ages and fitness levels. Electric vehicles such as an electric bicycle provides a battery-powered motor that jumpstarts when riders needs it the most such as when starting and climbing

hills. These e-vehicles are practical for getting around the island and most come equipped with storage space for groceries etc.

- Quiet
 - Produces very little if any noise
- Affordable
 - Average prices somewhere between \$900 and \$1700 in Canada; The cost of recharging is really small, around 5 cents here in BC to completely recharge an electric vehicle such as a bicycle
 - Save on the cost of gas; Instead of buying a new electric bike, one can purchase an electric conversion kit to install on a regular bicycle for as little as 500\$ (and as much as 1400\$)
 - If electric vehicles (such as bike or cars) were rented at a reasonable rate by the ferry terminal, weekenders could save from taking their cars over.
- Safe
 - An electric bike by law is limited to a top speed of 32 km per hour. This reduces the risk of serious injury
 - With the proper protective gear and pathways that will hopefully someday be installed along the main road, safety would be quite high. Some electric vehicles such as scooters and bicycles could use these pathways instead of riding on the road.
 - It is safer to use electric vehicles on Mayne island as opposed to busy urban areas because there's less traffic and congestion (except during peak times of the year).
- Ideal for short trips
 - A significant reduction in the use of gas powered vehicles on the island would take place if more people used sustainable modes of transportation
 - Because electric vehicles have to be charged after riding between 20-60km, it's very well suited for short trips that many islanders make on a regular basis.
- Economically viable
 - During the summer, tourists could be drawn to these sustainable modes of transportation to which they could tour the island with. This could in turn increase the economic viability of Mayne Island.

Disadvantages

- Limited ability for carrying goods
- Not convenient in the rain, unless covered
- Need to recharge frequently
- Limited driving range

The electric bicycles are achieving the best range/capacity ratio with the average power assisted range between 25 and 60 km depending on cycling conditions (terrain, weather conditions, road surfaces, weight of the rider, need for assistance etc.).

Types of e-vehicles

- Cars, bicycles, tricycle, recumbent bicycles, scooters, segways
- There are two main types of electric bicycles:
 - **Electrically propelled:** electrical motor can completely replace pedaling.
 - **Power assisted:** electrical motor is active only during pedaling and it augments the pedaling action. . The average "couch potato" who normally rides at 10 mph can ride at 15-20 mph using the same effort. The rider just needs to pedal and change gears as with any other, non-electric bicycle. A computerized sensor monitors the force applied to the pedals and multiplies rider's power. Output from the battery-powered motor is greatest when rider needs it the most: starting and climbing. Some bicycle models provide a combination of electrically propelled and power-assisted bicycles. (power, when activated by a switch on the handlebar (power-on-demand) or in response to your pedaling (ped-elec), gives you an immediate, nearly silent push. When you release the switch (or stop pedaling), the motor coasts or "freewheels" - like when you stop pedaling a regular bike.)
- **Scooters:** Compared to a gas-powered scooter, electric scooters are lighter (between 22 and 35 pounds), much quieter and require less maintenance

Recommendations

- Acknowledging that most of the land by the ferry terminal is private, we nevertheless suggest that an appropriate place for an electric vehicle rental, repair and sales shop would be near the ferry terminal but away from congested traffic areas. (eg. to the right of the ferry terminal when getting off the ferry)
- As mentioned above, Mayne Island would be an appropriate place to promote the use of electric bicycles because it's sustainable, appropriate for all ages and fitness levels, safe, ideal for short trips, quiet, affordable and economically viable.

Information Sources

<http://www.electric-bikes.com/scooters.htm#Why>

http://www.jvbike.com/eps_kit.htm

6.3 CAMPING FACILITIES

Purpose of Vignette

- To explore opportunities to expand the range of accommodation options for tourists on Mayne Island
 - To establish a range of options for possible camping facilities which will be in keeping with the Island's inherent character and not

negatively impact the ecological capacity of Mayne Island vis-a-vis water and energy, by using:

- Water retention ponds, cisterns, solar power lights, composting toilets; native plant vegetation, split-rail fence, well delineated and specific trail network to points of interest
- To create, through design, a camping facility which will address issues related to noise and 'trouble' (i.e. large weekend parties), ecological damage to the site, and limit the possibilities of campers traversing on private land. It is desired that a reduction of random camping and general nuisance to island residents will be achieved

Recommendations

- In campsite planning environmental issues should be taken into consideration from the beginning.
- When determining the campsite location, alternatives which place the least possible burden on the environment should be studied.
- Local traditions should be taken into account in construction. Architecture should be in harmony with the environment and landscape. Construction materials and technical solutions should be environmentally friendly.
- Attention should be paid to preserve traditional landscapes and the diversity of nature. Permeable surface should be encouraged and the growth of native plants which directly complement the surrounding environment should be favoured over exotic plant species.
- Traffic noise and other problems caused by traffic should be reduced as much as possible with proper spacing between individual camp sites and large buffering area between campsite and local residences.
- Campsite operators and users should make use of local products and services as far as possible.
- Campers should be encouraged to remain on existing trails and routes, and/or new trails should be well delineated and purposeful.
- Campers should regulate water consumption as well as the use of lighting and heating energy - develop solar energy or other alternatives to deliver night lighting around facilities.
- Campers should take care of sorting the waste. Organic waste should become composted and all waste, including that from the composting toilet, should be removed from the site and/or the introduction of worm beds for composting of this waste to be used as a fertilizer to greatly reduce the quantity of solid wastes needing to be removed from the Island. Minimise the amount of waste generated by re-using materials and recycling as much of the waste as possible.
- Site suitability analysis for possible sites as well as a formal process of rezoning to match the Mayne Island Bylaws will need to be undertaken.

Information Sources

- homepage1.nifty.com/asia-pacific/responsible.html

- http://www.binnaburrallodge.com.au/advantages_environmental_management.shtml

6.4 AN UPDATED FERRY TERMINAL

Purpose of Vignette

- To create an enjoyable space to wait for the ferry. Recommendations include opening blocked view corridors, creating more attractive and comfortable waiting spaces and creating the opportunity to buy locally built products.
- Contribute to the economy of Mayne Island, offering local merchants a space to sell their products at the terminal. This would target tourists as well as capitalizing on business from ferry passengers who have a layover or transfer at Mayne.
- Facilitate orientation from the terminal. More visible signage or the implementation of a visitor information center would aid new visitors in finding their way.
- Explore future options for terminal expansion, redevelopment. If expansion is necessary in the future, identify parcels of land targeted for re-zoning or redevelopment

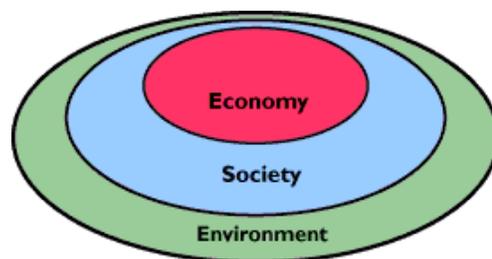
2.3 Sustainable Lifestyles

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1.0 What Is Sustainability?

The most common definition of ‘sustainable development’ was first used in the Brundtland Report for the World Commission on Environment & Development in 1987. It states that “sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). The concept has been both widely used and frequently misunderstood. ‘Sustainable development’ does not mean unlimited development. It does not mean simply saving every tree we encounter, nor does it mean reverting to a depression-era lifestyle. Simply, “sustainability means doing things better, not doing without” (Boyd, 2004). Being sustainable means that our actions can be sustained without compromising the future; our current levels of resource consumption are not sustainable, for example, because we consume at a rate that will eventually exhaust most resources, and we often negatively affect social and ecological systems in doing so. However, given the frequent confusion surrounding the concept, how it is measured, and its implications, it may be more useful to explore the concept of ‘genuine wealth’ to analyze sustainability.



In the last few years, the concept of ‘genuine wealth’ has come to be applied to discussions of how sustainability can be defined and measured. For example, a sustainable community would be one capable of generating genuine wealth, or fundamental qualities of life, such as vibrant community, meaningful work, good housing, high quality education and health care, functional infrastructure, outstanding recreational opportunities, clean air, clean water, healthy relationships with others, and dynamic economic prospects.

The purpose of this portion of the project is to explore the *sustainability* of the Mayne Island lifestyle as it pertains to maintaining a healthy economic, environmental and social framework for future Mayne Island residents and visitors, understanding that systems trending towards sustainability will increase the genuine wealth of the community. Our exploration found that Mayne Island has certainly made some gains towards sustainability, although no aspects of the Island lifestyle are completely sustainable. We would like to promote further gains by making suggestions as to how the concepts of sustainability and genuine wealth could be incorporated into future land use, waste management, resource use, and social and economic development.

Boyd, David R. 2004. Sustainability within a generation. Vancouver: David Suzuki Foundation.

World Commission on Environment and Development. 1987. Our common future. Oxford: Oxford University Press.

1.1 Goals Towards A Sustainable Mayne Island

In response to sustainability issues on Mayne Island, we produced the following broad goals for Mayne Island:

- Increase energy self-sufficiency.
- Manage water sources effectively.
- Manage material resources effectively; reduce amount of waste produced.
- Increase local food production and consumption to reach food security. Security is reached when all members of a community have nutritious, personally acceptable, appropriate foods, produced in ways that are environmentally sound and socially just.
- Foster demographic diversity (especially age).
- Increase economic self-sufficiency.

2.0 Global and Local Trends and Context

2.1 Finite natural resources

Although BC ferries and other public bodies continually reiterate their support for affordable transportation services to the gulf islands, it is difficult to see them carrying out this mandate with the current trends of rising oil prices. If, as predicted, oil prices continue to rise over the next decade, it is foreseeable that ferry prices will also rise (particularly under governments which expect to see profits from public services or at the very least that these services don't lose money). The impact of our reliance on global oil supplies will not only be felt in the transportation sector. We also expect to see rising prices on imported goods from companies whose distribution networks rely on transportation that uses oil. In this scenario building networks that rely less on oil makes good economic sense in the long run.

Far from being a precise science, predicting oil supplies and pricing is difficult. However in 1956 a geological engineer working for Shell petroleum by the name King Hubbert coined the term 'peak oil'. The hypothesis of peak oil was that eventually we would reach a peak in oil production. After this peak we would see a gradual decline in oil supplies which would be accompanied by a rise in oil prices due to increasing demand and dwindling supply. Some scientists believe

we have arrived at the point of 'peak oil' or have just passed it. If this is so, we should expect to see a rise in the price of oil that will eventually be passed on to the consumer. With the days of two digit prices at the pumps gone perhaps it is time we consider implementation of alternative energy sources and building distribution networks that use less energy.

2.2 Ecological Footprint

As a means to better gauge the current sustainability of Mayne Island, we calculated a generalized Ecological Footprint for the residents of the island. Ecological Footprint analysis translates the abstract concept of carrying capacity into a personalized measure of sustainability.

Through the consideration of food & fibre consumption, transportation infrastructure and fossil fuel use, the Ecological Footprint attempts to quantify our individual resource use requirements.

Mayne Island statistics:

Total island population (year-round) ~ 900

Total island area = 2,227 hectares

A generic per-capita *Ecological Footprint* was calculated¹
for Mayne Island² as following:

food & fibre	2.0 hectares
mobility	0.6 hectares
shelter	1.5 hectares
goods & services	1.8 hectares
TOTAL	5.9 hectares

TOTAL *ECOLOGICAL FOOTPRINT* =

(TOTAL ISLAND POPULATION) x (PER CAPITA FOOTPRINT) = 5310 HECTARES

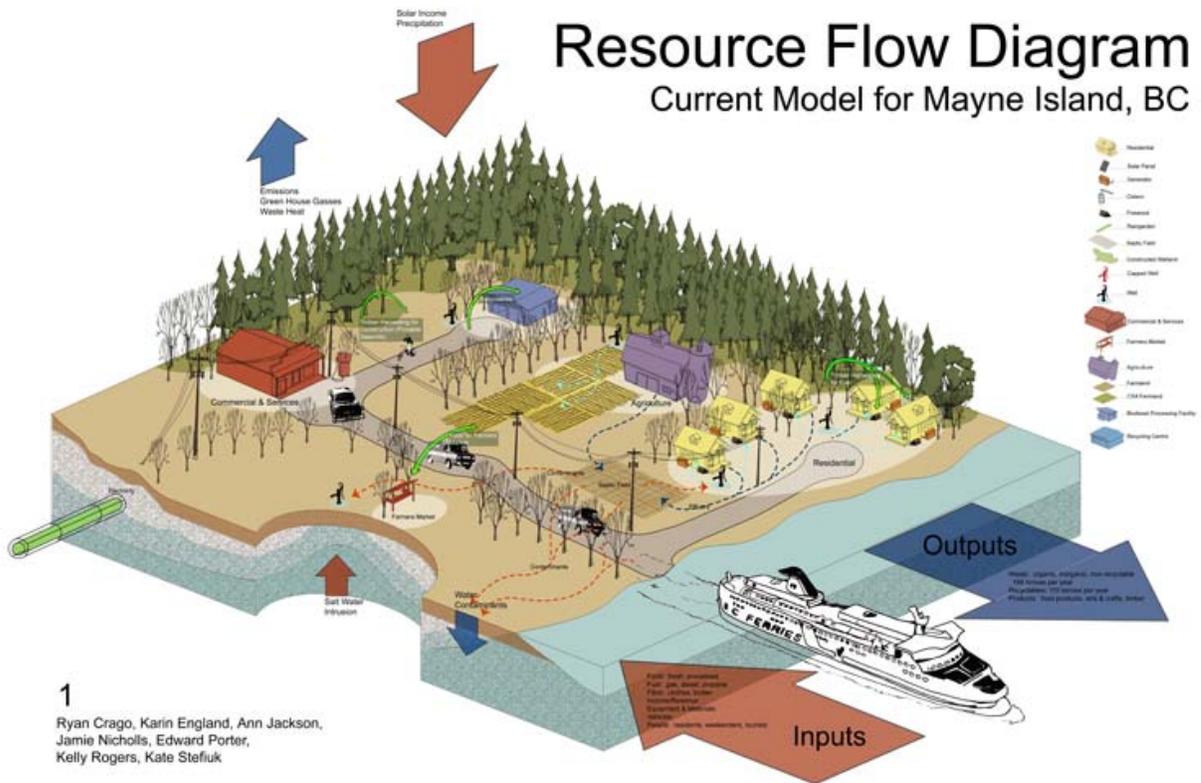
From this approximation, the current Ecological Footprint for permanent residents of Mayne Island would require 240% of existing resource base to sustain current levels of consumption.

In other words, without external resource flows to the island, residents would require approximately 2.5 Mayne Islands to sustain current consumption levels. And while these calculations provide a framework for discussion, policy goals

should reflect targets for island self-sufficiency and consumption levels (rather than size of overall footprint).

From this general benchmark, our focus shifted to a more Mayne-Island-specific analysis of resource flows on the island.

Through a graphic representation of food systems, energy systems, transit systems, water and waste systems on the island, we identified potential inefficiencies and dependencies of the overall system.



¹ Ecological Footprint calculator provided by: www.myfootprint.org

² Assumptions for Ecological Footprint analysis include commuting habits (assuming occasional carpooling, ~20 km/litre fuel efficiency, 50-150 km/week automobile use, 10-25 km public transit, 3 hours flight time per year), dwelling characteristics (single family detached home residence, two people per household), and dietary characteristics (varied diet consisting of primarily off-island, processed and packaged foods).

3.0 Goals in Depth: Supporting Data and Information

3.1 Goal: To maintain sources of clean water for current and future generations.

3.1.1 The Water Story: A Residential Scale Water Budget for the Typical Mayne Island Dwelling

THE FACTS:

Mayne Precipitation = approximately 690mm/year

Estimated Average Water Consumption = 1,225 litres/dwelling unit/day
 = 447,125 litres/dwelling unit/year
 (Source: NRCAN Bowen Island Indicators)

Household Consumption Estimates (based on full year)

Toilet	=	26%	=	116,252
Rest of Bathroom	=	23%	=	102,838
Landscape	=	35%	=	156,493
Cleaning	=	2%	=	8,943
Kitchen	=	<u>5%</u>	=	<u>22,356</u>
	=	100%	=	447,125

Source: The Atlas of Canada (<http://www.atlas.gc.ca>)

POSSIBLE SOLUTIONS:

Rainwater Harvesting for Landscape/Toilet Use

Cistern Collection Capability

Roof Size (square feet)	Capture potential (litres/year)
1000	57,439 litres
1500	86,159 litres
2000	114,879 litres
2500	143,600 litres

On-Site Greywater Treatment

39% of household wastewater is greywater (as oppose to blackwater) and is candidate for treatment, and recycling as irrigation.

39% of household wastewater = 450 litres/day
= 164,250 litres/year

- Compare to estimate of yearly landscape use of 156,000 litres

Ultra-Low Flush/Composting Toilets

Average Toilet uses approximately 18 litres/flush

Ultra low flush toilets = 6 litres/flush

- Cuts toilet water use by two thirds = 38,748 litres/year

Composting toilet = 0 litres/flush

MAYNE ISLAND DESIGN HOME WATER BUDGET

The NEW MAYNE home equipped with ULF toilet, greywater irrigation and enclosed cistern. Assumed roof size is 1500 square feet. Harvested rainwater used for toilet, and combined with greywater for landscape.

Status quo Household Consumption Estimates (based on full year):

Toilet	=	26%	=	116,252
Rest of Bathroom	=	23%	=	102,838
Landscape	=	35%	=	156,493
Cleaning	=	2%	=	8,943
Kitchen	=	5%	=	22,356
	=	100%	=	447,125

New Mayne Household Consumption Estimates (based on full year, with new balance of potable water use):

	Full Year Estimate	New Potable Water Use
ULF Toilet	= 38,750	= 0
Rest of Bathroom	= 102,838	= 102,838
Landscape	= 156,493	= 0
Cleaning	= 8,943	= 8,943
Kitchen	= 22,356	= 22,356
	= 329,380	= 134,137

Collected rainwater for toilet/landscape	=	86,000 litres
Rainwater left over for landscape use	=	47,250 litres
Greywater treated for landscape use	=	164,250 litres
Excess grey/rainwater to be infiltrated/shared between residences/used as increased landscape irrigation	=	55,000 litres

Without any change in reduction/conservation habits potable water was reduced by 70% of initial volume.

3.1.2 OCP Context

Water Supply:

- 3.2.1.1 The Ministry of Environment, Lands and Parks shall be requested to undertake a full investigation of water sources and quantity to lead to a strategy report that could be incorporated into this Plan.
- 3.2.1.2 The Ministry of Environment, Lands and Parks shall be requested to identify watersheds, groundwater recharge areas and wetlands that require protection.
- 3.2.1.3 As a condition of subdivision approval, applicants shall be required to prove the availability of sufficient potable water to support the proposed use.
- 3.2.1.4 Enclosed cisterns and ponds for storage of rainwater to supplement water supply for individual or group household use, fire protection and irrigation shall be encouraged.
- 3.2.1.5 Development will be restricted in areas where groundwater limitations have been identified.
- 3.2.1.6 The broadcasting of pesticides and herbicides on the land by any agency or individual shall be discouraged.
- 3.2.1.7 The Environmental Health Department of the Capital Regional District shall be requested to ensure any flow of effluent be controlled so it does not contaminate surface or groundwater.
- 3.2.1.8 Any education program directed toward the conservation of the Mayne Island Trust Area water supplies shall be supported.
- 3.2.1.9 The Ministry of Environment, Lands and Parks shall be requested to ensure that drilled wells with high salt content be capped or

grouted to protect against the intrusion of salt into the fresh water table.

- 3.2.1.10 Owners of land being logged are encouraged to maintain sufficient cover to permit groundwater recharge throughout the harvest cycle.

Water Systems:

- 3.2.2.1 Water conservation, the building of cisterns, and ponds for water storage areas and the efforts to recycle water shall be encouraged.
- 3.2.2.2 The development of community water systems and the use of shared wells shall be encouraged.
- 3.2.2.3 An adequate source of safe freshwater must be proven prior to subdivision approval or construction of buildings.
- 3.2.2.4 The development of new technologies which demonstrate water conservation and efficient use of water resources shall be encouraged.
- 3.2.2.5 The Capital Regional District Health Protection and Environmental Health Department shall be requested to monitor the water quality of community water systems.
- 3.2.2.6 The Ministry of Environment, Lands and Parks shall be requested to implement regulations that will permit local governments to protect and regulate water use for the community.

Disposal of Sewage:

- 3.3.1.1 When a sewage system is required a sewage disposal system must be approved prior to construction of buildings.
- 3.3.1.2 Effective, non-polluting alternative sewage treatment methods shall be encouraged.
- 3.3.1.3 The Environmental Health Officer of the Capital Regional District shall be requested to consider the cumulative effects of individual disposal systems in an area.
- 3.3.1.4 Community sewer systems to remedy a developed area where septic systems are failing may be permitted.

- 3.3.1.5 The Ministry of Environment, Lands and Parks and the Environmental Health Officer shall be requested not to permit any ocean dumping of untreated sewage.
- 3.3.1.6 The Federal Government shall be requested to require that vessels equipped with sanitation facilities, while docked, moored, or traveling within the waters of the Mayne Island Trust Area, use sewage holding tanks and not dump sewage into the sea.
- 3.3.1.7 Commercial marinas shall be required to have adequate pump-out stations for discharge of holding tanks.

3.1.3 Recommendations towards revising the Mayne Island Official Community Plan in terms of Water Supply and Systems:

1. Promote installation of Ultra-Low Flush (ULF) toilets in existing homes/businesses. (This could be done with financial or services incentives)
2. Mandate installation of ULF toilets in any new developments
3. Promote retrofitting of existing homes/businesses with a rainwater harvesting system for landscape irrigation and toilet use (This could be done with financial or services incentives)
4. Mandate rainwater harvesting for landscape irrigation and toilet use in any new developments
5. Promote retrofitting of existing homes/businesses with greywater treatment systems for landscape irrigation
6. Mandate installation of greywater treatment systems for landscape irrigation in any new developments
7. Install water meters on all homes for the purpose of monitoring volume of use.
8. Demand that the Ministry of Land, Water and Air complete a comprehensive aquifer and groundwater investigation and analysis. This information could then be incorporated into a Water Resource Management Plan for Mayne developed by the Ministry and Islands Trust.
9. Explore the feasibility of integrating water districts.
10. Implement a comprehensive well registration program, to ensure the timely capping of unused wells.

Although the Mayne Island Official Community Plan “encourages” the use of water conservation techniques and technologies, stronger and more explicit language and recommendations may be necessary to achieve results in terms of community involvement in water conservation, and provincial government research initiatives.

3.1.4 Recommendations towards revising the Mayne Island Official Community Plan in terms of Sewage Disposal and Wastewater:

1. Ensure proper siting of septic fields according to soil suitability (soil type, slope, depth) at both the local and regional scale.
2. Explore the feasibility of constructed wetlands and solar aquatics as alternative wastewater treatment technologies.

Regulatory agencies have been slow in supporting the establishment of constructed wetlands for wastewater treatment because of concerns that their performance may be less effective or less reliable than conventional technologies. In general however, constructed wetlands have been proven to perform as well, and are significantly less expensive and more aesthetically pleasing relative to conventional treatment systems. In terms of regulation, a constructed wetland must meet effluent discharge standards as outlined by the Canadian Federal Fisheries Act and Canadian Environmental Protection Act.

3.2. Goal: Increase opportunities for on-island food production, marketing and distribution to improve the food security of Mayne Island.

FOOD SECURITY can be defined as the "state in which all persons obtain a nutritionally adequate, culturally acceptable diet at all times through local non-emergency sources."

3.2.1 OCP context for agricultural production on Mayne Island:

- Section 4.1.8: Local trust committees and, where applicable, municipalities shall, in their official community plans and regulatory bylaws, address the preservation, protection and encouragement of farming, sustainability of farming, and the relationship of farming to other land uses.
- Section 4.1.9: Local trust committees and, where applicable, municipalities shall, in their official community plans and regulatory bylaws, address the use of adjacent properties to minimize any adverse affects on agricultural land.
- Section 4.1.10: Local trust committees and, where applicable, municipalities shall, in their official community plans and regulatory bylaws, address the design of road systems and servicing corridors to avoid agricultural lands unless the need for the road outweighs agricultural considerations, in which case, appropriate mitigation measures shall be required to derive a net benefit to agriculture. Amend Mar 6/98 BL 48
- Section 4.2.17: Local trust committees and, where applicable, municipalities shall, in their official community plans and regulatory

bylaws, address: • the retention of large land holdings and parcel sizes for sustainable forestry use, and • the location and construction of roads, and utility and communication corridors so as to minimize the fragmentation of forests.

- Section 5.7.2: Local trust committees and, where applicable, municipalities shall, in their official community plans and regulatory bylaws, address economic opportunities compatible with conservation of resources and protection of community character.

AGRICULTURAL LAND RESERVE –

Where land is deemed to have agriculture potential, it has been placed in the Agricultural Land Reserve (ALR). In effect, the ALR is a special kind of Provincial government zoning which limits the use of land within the Reserve to farm uses or approved uses that do not permanently remove farming potential. Any development or construction is subject to local zoning regulations but also to the approval of the Provincial Agricultural Land Commission. Applications are processed through the Islands Trust office.

Also, from the Mayne Island Zoning Bylaws:

- Section 9.8.5: Subdivision Requirements
 - (1) No lot having an area less than 8 hectares may be created by subdivision.

3.2.2 Recommendations

Recommendation 1:

- The Islands Trust should consider adopting a food policy similar to that of Vancouver:

"To develop a just and sustainable food system for the City of Vancouver that fosters equitable food production, distribution and consumption; nutrition; community development and environmental health."

Recommendation 2:

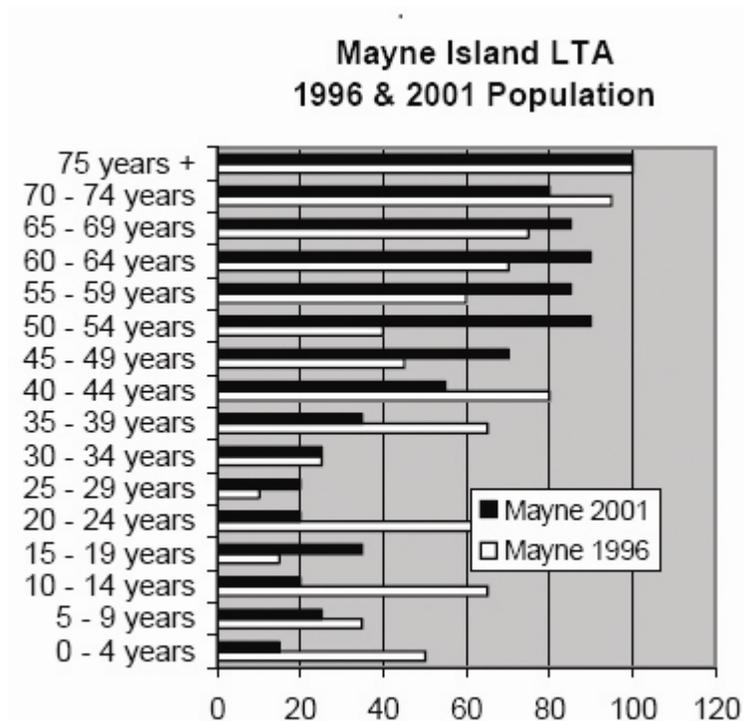
While maintaining the bylaws aimed at the protection of agricultural land, the Mayne Island OCP should consider policies affecting the viability of on-island processing and distribution of food, as well as opportunities to grow a larger local (Mayne Island) market. Potential synergies exist between development alternatives and food production and distribution.

Recommendation 3:

Moving forward, other policy decisions should take into account their effect on the sustainability of Mayne Island's food system and its food security.

3.3. Goal: To achieve a balanced age demographic.

A key indicator of a sustainable local economy is a well balanced age demographic. The following figure indicates a significant shift in the average age of the Mayne Island population, which could lead to affordable housing and employment shortages.



source: "Measuring Our Progress Report 2003", Islands Trust

3.3.1 OCP Context

OCP context for issues concerning an aging population on Mayne Island:

Section 1.2.2: To maintain a rural island community in which residents can enjoy privacy and a living environment free from visual, noise and other sensory pollution.

Section 1.2.6: To support a diverse and vital community structure through effective housing policies for affordability, rental opportunities and special needs.

Section 1.2.7: To maintain appropriate overall density of development while retaining flexibility for a range of dwelling types.

3.3.2 Recommendations

The Mayne Island OCP does not directly address the issue of an aging population. The lack of a balanced age demographic is related to several issues, including the difficulty for young people to establish homes and livelihoods on the island. It is recommended that the Mayne Island Local Trust Committee develop a policy to address this important issue of an aging population and the need for a more balanced age demographic.

3.4.0 Goal: To reduce energy use on Mayne Island. The first step in this process is to undertake an audit of current energy use on island. In addition to reducing energy use, alternative energy sources will be employed.

3.3.3 OCP Context and Recommendations

In terms of energy issues in the existing OCP, it is recommended that the following addenda be considered:

Section 4.5.1.2: The conservation of energy and the use of renewable resources shall be encouraged.

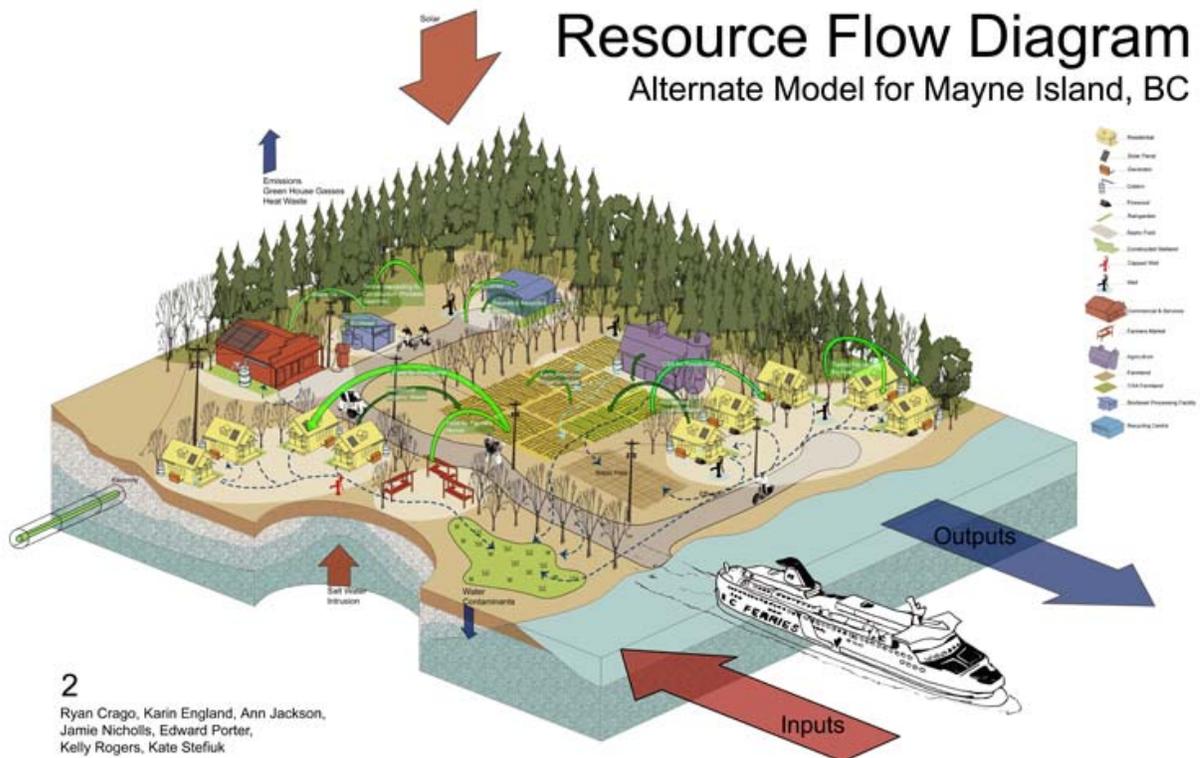
Add "citizens will be encouraged, through tax incentives from the Capital Regional District, to participate in federal and BC Hydro energy programs. Programs include, but are not limited to, the One-tonne Challenge, Canadian Industry Program for Energy Conservation (CIPEC), Commercial Building Incentive Program (CBIP), Energy Retrofit Assistance (ERA), Incentive to Install Efficient Heating Systems federally, and the Energy Star and Power Smart programs available through BC Hydro."

Section 4.5.1.3: Community initiatives to provide educational and informational programs on energy conservation in the Mayne Island Trust Area shall be encouraged.

Add "In cooperation with the Capital Regional district, a lecture series will be held on Mayne Island to address energy saving techniques."

4.0 Resource Flow Diagram: Alternate Model

With the preceding goals and recommendations in mind, the model resource flow diagram was revisited. Considering the same food, energy, transit, water and waste systems, a conceptual alternative future for Mayne Island was developed (as represented in the graphic below). It is evident that on-island services and production of goods have the potential to replace many of the inefficiencies and off-island dependencies found in the current model. Through the application of existing and/or emerging technologies, Mayne Island and its residents could greatly increase their self-sufficiency and make significant steps toward a more sustainable future.



5.0 Island Lifestyles & Sustainability

The following is a collection of quotes and notes summarizing personal interviews made with Mayne residents during the Mayne Island Open House event. These are broadly organized into relevant categories:

WATER

- Water use is so high (and aquifer supply so low) that one water district had to turn off water in the summer between 9 am and 5 pm. The pumps couldn't keep up.
- This island is a great example of conflicts that occur everywhere & at all scales: division between have's and have not's. The weekenders & holiday renters are the worst offenders of water overconsumption with complete disregard for water quantity and quality issues for the surrounding neighborhood & island community.
- I don't believe that there are aquifers and that there are contamination issues – this is propaganda used to fuel social divisions on Mayne Island. We have had many “experts” come to the island to do test and surveys – they further this propaganda. Furthermore, these “experts” leave the island without showing us their findings.

SOLAR

- Owns a 2000 sq. ft., single level home with a solar water heating system built into the house (designed with local architect Bob Irwin). Uses BC Hydro 7 hrs/day in winter and 2-3 hrs/day in summer to supplement heating water.
- A man is building a home and wanted information on buying and/or using solar panels.

CAR CULTURE

- Design-solutions could be applied to de-emphasizing car culture. The mini-mall, for instance, could use the parking space as gathering space and make links between the Trading Post & TruValue.

GATHERING SPACES

- One of the reasons I don't hang out at the bakery is because it is mostly people with nothing to do, who drink coffee, smoke and bitch – it's boring. If a more vibrant place existed, people could go once or twice a week to get out and and talk to their neighbors.

FARMER'S MARKET

- I decided to load my truck up with a few sides of beef, some tomatoes and some other stuff and take it down there... it was all gone in 2 hours. I made \$800. It didn't take me long to figure that out, so I called up some of the other farmers on the island and asked them if they had anything to sell... that's sort of how it started.
- The farmer's market was a great way to get people together and realize community resources. It is partially tourist-oriented but also builds community.

DENSIFIED HUB

- Receptive to hub & clustered housing to address mobility issues for seniors – vibrant communities, Asked about Village Bay vis-à-vis parking not enough parking. Someone developed a residential lot for parking (against regulations) and it eventually became a target for junking vehicles, later vandalized by “kids with nothing better to do.”

CLUSTER DEVELOPMENT

- Generally looked at negatively- response somewhat biased by “urban” character of housing cluster vignette.
- See Mayne Island draft OCP for bylaws – starting to “encourage” this sort of development.
- Some viewed as necessary to prevent suburbanization.

PROCESS & PRESENTATION

- Good process because we act as neutral body for polarization.
- Very balanced presentation – that's exactly what we need more of...”
- Could a copy of the final report be placed in the Mayne Island library?

“ENVIRONMENT”

- On the island it is viewed as “trees,” but people must be included in the equation. Young people may want to work here and we have to accommodate that.

ISLAND ECONOMY

- This discussion was very much appreciated – aging population a very important factor to consider.
- There is an unspoken truth here: “if you can’t paddle your own canoe here, you have to leave.” While other islands have volunteer services, Mayne is left without- more a statement of culture than demographic.
- Problems with local economy- danger of relying on tourism for jobs – a narrow way of looking at livelihood.
- Used to have a better school system- more children – now it’s at risk there aren’t place for young people to work at a living wage. It’s hard to make ends meet no matter how much work you do. It would be great to see if there’s a way to generate work on the island.
- scenarios for the Mayne Island economy:
 - retiree community
 - tourist economy
 - local economy
- Trends are already changing vis-à-vis off-island shopping. Courier services are in place. Many ideas (sawmills, self-sustaining food production) are “been there, done that.” They just don’t generate sufficient, stable income because “true cost” (oil prices) hasn’t effected prices yet.
- As for young people leaving the island, there was low concern about this – “wandering years” were encouraged.
- Again, the idea that Mayne Island’s economy is seasonal and has no stable year-round employment was a concern. Denman’s chocolate factory was cited as an example.
- Home Hardware presented as a sign of success of local economy.

- The Tru Value was also touted as a success in that weekenders and vacationers bring fewer groceries from off-island. (But the locals shop at the Trading Post.)
- Recycled products are too expensive to produce – not cost effective.

WEEKENDERS

- I want to be involved and participate in this community but I still want to work off-island- this is my escape from the workweek.

WATER TOWERS

- Yuk- they all look horrible. Instead of large collection tanks, it should fall on individuals to collect water. Cisterns for every house is the best idea.
- Aesthetically, I prefer cisterns on houses to large towers in the landscape.
- Why do they have to be above ground? Or could they be tucked under the trees more? The tanks aren't ugly, but the towers are...

COMPOSTING TOILETS

- Mild interest – residents don't know what it involves re: maintenance and are therefore less interested.

BIKE LANES

- Bike lanes are a great idea!
- 86% of the population is over 65 – bike transit might not be entirely feasible given this population demographic.

FIREWOOD

- Is that better? What about emissions? If I can smell it, maybe that's not so good...
- Our estimates are too low – Mayne could use more wood that they do currently. He gave us some numbers about historical production for comparison...