

## **OCP Excerpt: Environmental Sustainability Policy Section**

### **4.1 Climate Change Action and Energy Management**

**Objective 4.1.1 To pursue climate change adaptation measures to ensure long-term decisions are congruent to climate change trends and patterns.**

#### **Policies**

- a) Explore community and economically-driven food production areas;
- b) Conduct an assessment of ecologically sensitive areas vulnerable to climate change;
- c) All new shoreline developments shall accommodate expected increased sea levels;
- d) Investigate local impacts to vegetation and ecology;
- e) Prepare resources and ecological areas for pests, fluctuations in weather and intense storms; and
- f) Investigate and implement management direction (planting different tree species, targeted harvesting, other stand treatments, integrated strategic planning, fire safety and flooding).

**Objective 4.1.2 To pursue climate change mitigation measures to contribute to the global objective of bringing Carbon Dioxide (CO<sub>2</sub>) concentrations in the atmosphere to a level of 350ppm.**

#### **Policies**

- a) Work towards reducing community-wide GHG emissions to 33% below 2007 levels by 2020, and 80% below 2007 levels by 2050;
- b) Measure Carbon Dioxide emissions, set targets and develop action plans to lower levels;
- c) Continue to measure and work towards a baseline of community and District of Port Hardy (operational) energy Green House Gas (GHG) emissions to create a CO<sub>2</sub> inventory using Provincial community and municipal inventory ratios;
- d) Develop community-based community carbon sequestration;
- e) Enhance carbon sink capacity through natural resource protection and enhancement;
- f) Continue gravity-fed water system; and
- g) Work towards a carbon neutral status by 2012.

**Objective 4.1.3 To support sustainability-based sectors and processes.**

#### **Policies**

- a) Research full life cycle cost assessments for all municipal building energy-related decisions (e.g. heating, cooling or water energy systems);
- b) Increase efficiencies in energy use;

- c) Pursue infrastructure design which is linked to alternative design standards, full-costing accounting and renewable energy systems;
- d) Require green procurement for all community-based capital purchasing;
- e) Switch to renewable forms of energy where feasible;
- f) Encourage compliance with Provincial regulations on woodstoves inversions and wood heat;
- g) Substitute materials for ones that use a less amount of embodied energy and grow more local food;
- h) Plan future land uses and growth areas to achieve a net-zero energy demand for the community;
- i) Research implementation of solar power wherever possible for municipal infrastructure (e.g. crosswalks, lighting, pump stations, boardwalks, etc);
- j) Research the use of a net-zero emissions sewer system and eliminate septic systems where possible;
- k) Encourage compact development to save on transportation and energy costs; and
- l) Attract “green” manufacturing industries to Port Hardy.

**Objective 4.1.4 To achieve a high-level of awareness, understanding and support to sustainable energy management practices and climate action initiatives.**

**Policies**

- a) Encourage other organizations in Port Hardy to strive to reduce GHG emissions;
- b) Educate citizens on the importance of energy management for all aspects of the community’s social, economic and environmental well-being;
- c) Recognize the community’s global citizenship, linking local efforts to regional, national and international energy and emissions policy;
- d) Work with stakeholders to better understand the local effects of climate change and identify the benefits and impacts on the environment, society and the economy; and
- e) Engage and educate the Port Hardy community on issues pertaining to climate change and how community issues can be linked and discussed.

**Objective 4.1.5 To use energy-based solutions to manage climate action impacts and increase the economic viability of the region.**

**Policies**

- a) Promote the creation of a District Energy System and continue to explore funding options for that system;
- b) Continue to investigate the feasibility of establishing a biomass heat and power facility in the area;
- c) Take responsibility for a sustainable future by ensuring the ongoing health of the social, economic and natural environment through climate protection within Port Hardy;

- d) In cooperation with applicable stakeholders the District of Port Hardy will strive to reduce GHG emissions through the following:
- i. Land use, energy and transportation planning;
  - ii. Infrastructure design;
  - iii. Green procurement;
  - iv. Building retrofits;
  - v. Water conservation;
  - vi. Solid waste diversion; and
  - vii. Renewable energy.
- e) Liaise with local and regional partners to share knowledge and resources where possible;
- f) Work with regional stakeholders and senior levels of government to create renewable sources of energy in Port Hardy;
- g) Encourage continued research and development in new emerging energy fields;
- h) Use Development Permit Areas to promote energy conservation and water conservation and to reduce GHG emissions;
- i) Require that development applicants create an emissions reduction strategy as part of the approvals process;
- j) Require new developments to work to decrease net energy consumption in the District;
- k) New commercial and institutional buildings are encouraged to use available environmental building standards (e.g. LEED®, Built Green, etc.);
- l) Conserve water, which reduces energy use and emissions, and deploy it through building approvals processes, staff, real estate agents and others;
- m) Implement a range of water demand management measures in government operations and facilities, as part of a retrofit of existing buildings or design of a planned new building such as fixtures that exceed required building code performance, dual-flush toilets and water and energy efficient appliances;
- n) Encourage diversion of organic waste from landfills by promoting composting, possibly including the provision of backyard composters at a reduced price to residents;
- o) Support smart growth developments that create livable, walkable communities where people have less need to drive and more incentive to use other modes of transportation;
- p) All new subdivisions greater than five lots must consider the following onsite energy strategies:
- i. Site planning that maximizes solar gain;
  - ii. Installation of neighbourhood-based energy production (geo-thermal, heat recovery from waste, micro-wind, and other alternative energy systems);
  - iii. Storm water collection for the use of local food production, landscaping and other nonpotable water demands;
  - iv. Development of a Port Hardy-unique green dwelling unit pilot project; and

- v. Cluster buildings to minimize heat loss and disturbance to natural drainage, vegetation and wildlife habitat.

**Objective: 4.1.6 To use resource management to manage climate action impacts and increase economic viability of the region.**

**Policies:**

- a) Adopt an integrated approach to Port Hardy's waste management system;
- b) Continually reduce the volume of solid waste sent to land-fills;
- c) Investigate the feasibility of a bio-fuel created by waste flows within the area;
- d) Encourage neighbourhood reuse-it and repair centres;
- e) Encourage composting of food scraps and vegetation cuttings;
- f) Work with local businesses to create extended producer responsibility programs for hazardous materials, reduction of packaging and plastic bags;
- g) Require all construction projects to achieve a level of re-use and recycling of waste materials;
- h) Ensure that there is a location for the disposal of pharmaceuticals and educate residents to where they can dispose of them, explaining why they shouldn't throw them in the garbage or pour them down the drain;
- i) Investigate creating a neighbourhood energy utility through partnerships with the private sector, using biomass or heat recovery from the sewer system; and
- j) Collaborate with the RDWM to update the Regional Solid Waste Management Plan by means of public engagement, education and implementation of Port Hardy's waste diversion target.

**4.2 Water Resources**

**Objective 4.2.1 To protect and enhance the quality of Port Hardy harbours, intertidal areas, rivers, streams and ground water sources in order to provide an integrity level that supports the ecological services of the Tsulquate River Watersheds.**

**Policies**

- a) Establish a Development Permit Area for the Hardy Bay Estuary for means of ecological protection;
- b) Support and establish a Groundwater Protection Plan;
- c) Require the implementation of Port Hardy Riparian Area Regulations for all development occurring within a Riparian Area; and
- d) Support the establishment of foreshore land use designations.

**Objective 4.2.2 To supply Port Hardy residents with a high quality of potable water, in a sustainable manner based on the watershed's carrying capacity.**

**Policies**

- a) Protection of water at the source, by means of restrictive land-uses;
- b) Develop an integrated water management plan; and
- c) Encourage public tours and education to explain where their water comes from and the importance of water conservation and protection.

**Objective 4.2.3 To continually work towards achieving water efficiencies and implementation of appropriate technologies.**

**Policies**

- a) Investigate a universal water metering program for both commercial and residential users;
- b) Develop demand-side water management practices in order to lower consumption rates;
- c) Encourage all new developments to incorporate on-site rainwater storage capabilities;
- d) Promote the use of grey-water systems;
- e) Promote water demand education, management and conservation as a component of a sustainable community; and
- f) Encourage requirements and incentives for low water use fixtures (e.g. low flow shower heads and toilets).

**4.3 Waste Water and Stormwater**

**Objective 4.3.1 To provide an efficient, cost-effective and low energy emissions waste water and storm water system.**

**Policies**

- a) Implement a tangible asset inventory management system in order to strategically repair leakages to sewer and storm water infiltration over the financial capital planning period;
- b) Implement a management system in order to eliminate leakages and sewer and storm water infiltration;
- c) Work towards an Integrated Resource Recovery (IRR) system;
- d) Mitigate environmental impact of surface parking by encouraging permeable surfaces and appropriate catch basins for contaminants;
- e) Encourage rain water retention by property owners;
- f) Promote and encourage development practices that minimize impervious surfaces; and
- g) Support and implement public education and consultation opportunities to gain support of changes to land use planning and site design practices in order to ensure positive storm water impacts downstream.

**4.4 Ecology and Wildlife**

**Objective 4.4.1 To protect wildlife through appropriate regulations and guidelines on both private and public lands.**

**Policies**

- a) Encourage native landscaping (trees, shrubs and plants) in all new subdivisions, developments and redevelopments;
- b) Identify wildlife and wilderness connectivity opportunities through natural corridors, and surrounding watersheds; and
- c) Require all new development to follow provincial BearSmart guidelines.

**Objective 4.4.2 To act as stewards of the pristine area that surrounds the Port Hardy community.**

**Policies**

- a) Support the adoption and cooperative use of stewardship principles;
- b) Inventory, protect and enhance environmentally sensitive areas (ESA's) including natural watercourses, riparian and steep or unstable slopes;
- c) Support community ownership of our parks and open space system through community gardens and stewardship programs, where appropriate;
- d) Adhere to the Environmental Best Management Practices for Urban and Rural Land Development (Ministry of Water, Land and Air Protection) and Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia where applicable;
- e) To collaborate with the Invasive Plant Council of BC ([info@coastalinvasiveplants.com](mailto:info@coastalinvasiveplants.com)) and review the available guidelines for identification, reporting, and control. Noxious weeds such as Japanese Knotweed and Scotch Broom are already established in a few locations in and around Port Hardy, and require early control actions or they can damage and displace native plants and ecosystems; and
- f) To work with the Ministry of Forests, Lands, and Natural Resource Operations in monitoring the removal and management of household waste/refuse/garbage, and yard waste dumped on nearby roads, including forestry roads.

**Objective 4.4.3 Retain Port Hardy's natural setting as its greatest natural attribute that sets it apart from all the other municipalities in the North Island.**

**Policies**

- a) Protect and preserve existing parks, open space and other natural areas;
- b) Assist in the creation of a comprehensive up-to-date local wilderness and trail map;
- c) Achieve an integrated approach towards the utilization of parklands, open spaces and wilderness areas; and
- d) Require new developments to provide appropriate public access and transportation connections to the development or help guide existing trail connections that lead to the development.

#### **4.5 Foreshore**

**Objective 4.5.1 To provide long-term ecological, social and economic viability of foreshore areas within Port Hardy.**

##### **Policies**

- a) Create a development permit area for all foreshore areas;
- b) Zone foreshore areas in order to manage a variety of uses;
- c) Encourage all developments within the foreshore area to work towards achieving a standard outlined by the Green Shores Rating System;
- d) Encourage natural boundaries to include practices that encourage native landscaping and habitat for foreshore wildlife; and
- e) Require developments within the foreshore areas to operate within the RAR guidelines.

#### **4.6 Land Use Pattern**

**Objective 4.6.1 Mix land uses. Each neighbourhood has a mixture of homes, retail, business and recreational opportunities.**

##### **Policies**

- a) Encourage the use of comprehensive development zones for new development areas;
- b) Encourage the use of mixed land-uses in Port Hardy's zoning bylaw; and
- c) Use form-based zoning code to achieve transition areas between differing uses.

**Objective 4.6.2 Build well-designed compact neighbourhoods. Residents can choose to live, work, shop and play in close proximity. People can easily access daily activities, transit is viable and local businesses are supported.**

##### **Policies**

- a) Encourage live-work land-use permitted uses;
- b) Establish design principles (landmarks, pathways, nodes and edges) for each neighbourhood;
- c) Support the use of master development and phase development agreements in order to achieve a comprehensive approach to land-use and built-form;
- d) Encourage pedestrian connections within the neighbourhood as well as to other nearby nodes and amenities;
- e) Encourage businesses to provide support measures for strengthening better communities (i.e. outdoor sitting areas, bike lock-up, public art, consistent hours); and

f) Consult with RDMW to identify Regional Transit Service enhancement opportunities.

**Objective 4.6.3 Create diverse housing opportunities. People in different family types, life stages and income levels can afford a home in the neighbourhood of their choice.**

**Policies**

- a) Encourage new developments to include a variety of housing typologies and densities;
- b) Create “flexi-zones” and incentives in the zoning bylaw to permit a diversity of housing types and densities;
- c) Encourage the use of housing agreements for developments in order to achieve housing needs;
- d) Encourage flexi-housing to accommodate changing demographics;
- e) Encourage new developments to include a variety of tenure arrangements; and
- f) Support the inclusion of secondary suites in single-dwelling residences.

**Objective 4.6.4 Reserve open spaces, natural beauty and environmentally sensitive areas. Encourage development that respects natural landscape features and has higher aesthetic, environmental, and financial value.**

**Policies**

- a) All developments are encouraged to identify viewsapes on their property and to not minimize surrounding property’s viewsapes;
- b) Protect environmentally sensitive areas including riparian areas, foreshores, forested and critical habitat areas from continual fragmentation and degradation;
- c) Minimize fencing and barriers that impede movement of wildlife;
- d) Encourage the connection of open spaces with trails and pathways;
- e) Encourage native landscaping techniques; and
- f) Encourage all waterfront developments to contribute to Port Hardy’s public access to the shoreline by means of ROW dedication, trail development, viewscape platforms and other pedestrian infrastructure outlined by Port Hardy staff.

**Objective 4.6.5 Protect and enhance resource lands and marine areas. A secure and productive land base, such as forested lands and foreshore areas, provides food security, energy sources, employment and habitat and is maintained as an urban containment boundary.**

**Policies**

- a) Incorporate resource-based lands into the development of the community;
- b) Avoid fragmenting larger parcels of resource lands in order to maintain their viability;

- c) Educate and build capacity around the community's knowledge towards the watershed and its carrying capacity; and
- d) Encourage community-based partnerships and ventures with local resource lands.

**Objective 4.6.6 Work towards achieving a net-zero emissions approach to land-use patterns and built-form.**

**Policies**

- a) Encourage all new buildings to be built to be net-zero ready;
- b) Transportation corridors shall include integrated services (intermodal transit, buried services, etc.);
- c) Larger areas within the District shall investigate the application of district-based energy systems;
- d) Use the Development Permit areas to promote energy conservation, water conservation and reduced greenhouse gases by requiring an emissions reduction strategy as part of the approvals process.<sup>1</sup>
- e) Encourage infiltration of stormwater to occur onsite;
- f) Alternative design standards (reduced street width, multi-use pathways, French drains, smaller lots, mixed-use zoning, etc.) are encouraged for all new developments and encouraged to be incorporated into existing neighbourhoods;
- g) All new subdivisions greater than five lots must consider implementing the following policies where suitable:
  - i. Site planning that maximizes solar gain;
  - ii. Investigate the feasibility of neighbour-based energy production (geo-thermal, heat recovery from waste, micro-wind, and other alternative energy systems);
  - iii. Storm water collection for the use of local food production, landscaping and other nonpotable water demands;
  - iv. Encouraged to pursue the development of an Port Hardy-unique green dwelling unit pilot project;
  - v. Encourage clustering of buildings to minimize heat loss and disturbance to natural drainage, vegetation and wildlife habitat; and
  - vi. Encourage new residential developments to be in 800 meter proximity to the following existing or pre-zone uses:
    - 1. Post office/post boxes
    - 2. Grocery store/convenience store
    - 3. Bank
    - 4. Community garden/greenhouse
    - 5. Park or open-space
    - 6. Transit stop