

SECTION 2 - THE NATURAL ENVIRONMENT

The natural environment, consisting of diverse populations of flora and fauna and freshwater systems, is an important feature of the East Wellington - Pleasant Valley Plan Area that has a considerable effect on its overall character and livability. Water resources, including both ground and surface water, are especially important as they provide habitat for fish, birds and animals as well as potable water for residential development and agricultural activities. Residents of the Plan Area recognize the value of a healthy and vital natural environment and support its long-term protection and enhancement.

Community greenways represent an integrated planning approach to help to achieve this objective. Greenways, defined as green linear corridors that connect natural areas, are intended to balance the needs of humans with those of natural systems. In practice, they are physical linkages, or corridors, between human development and important ecological or natural systems. A greenway planning approach coincides with the direction and objectives of this Plan. It supports sensitive development, the protection of valuable agricultural and forestry lands and environmental features and resources, and enhancement of rural character and open space. The long-term attainment of these objectives cannot occur without the on-going support and involvement of the community.

Environmental protection, as established in this section of the Plan, emphasizes community stewardship (as embodied in its objectives) where residents assume responsibility for protecting the environment through individual and community efforts. The section also includes policies intended to respond to community objectives where proposed changes in land use or development have the potential to impact the environment. These policies have been designed to minimize these impacts.

General Objectives:

- *Protect and conserve* the natural environment.
- *Encourage and support* community stewardship of the natural environment.
- *Support* an integrated planning approach to environmental protection and management.
- *Support* the coordination and harmonization of efforts among the public, stakeholders and all levels of government in the protection of the natural environment.
- *Encourage* the application of the *Forest Practices Code* to both provincial forest and the Forest Land Reserve.
- *Encourage* the harmonization of the Regional District's land use and subdivision regulations with the *Land Development Guidelines for the Protection of Aquatic Habitat* and *Stream Stewardship: A Guide for Planners and Developers* manuals.

- *Consider* the principles and guidelines of the *Land Development Guidelines for the Protection of Aquatic Habitat* and *Stream Stewardship: A Guide for Planners and Developers* manuals when assessing zoning amendment or subdivision applications.
- *Ensure* that development proposals conform to all provincial policies and regulations intended to protect the natural environment.

2.1 WATER MANAGEMENT

The East Wellington - Pleasant Valley Plan Area contains an extensive and complex water system comprised of both surface- and groundwater resources. Surface water includes many naturally occurring rivers, creeks, streams, lakes and wetlands, providing important wildlife and fish habitat, recreation opportunities, and irrigation and potable water supplies. The integrity and health of these resources are often threatened by development, agricultural, forestry and mining practices and excessive recreational use.

The Millstone River System is the largest watershed in the Plan Area, encompassing an area of approximately 100 square kilometres. The Millstone River originates at Brannen Lake and flows south and east through the Plan Area into the City of Nanaimo and ultimately into the City's harbour. It is fed by an extensive system of creeks and streams, some of which originate outside the Plan Area's boundaries. The Millstone River and several of its tributaries are an important fisheries resource and provides habitat for a variety of migrating and wintering waterfowl.

Groundwater is that part of a broader hydrological cycle that occurs below the water table. As an integral part of this cycle, what happens on the surface has a direct impact on its quantity and quality. Quantity is reduced when water is withdrawn at a faster rate than it is replenished or when it is diverted through surface water bodies. Quality is compromised by the introduction or presence of natural or synthetic contaminants into the system. As both the quality and quantity of groundwater is impacted by the manner in which land is used, land use and development must be carefully planned in order to minimize impacts on groundwater sources. Effective planning maintains a safe and sufficient groundwater supply for use by the community. While extensive knowledge regarding the location, mechanisms and status of groundwater and recharge areas within the Plan Area is presently unknown, their protection remains a priority.

Objectives: Water Management

- *Encourage* the long-term conservation, protection and enhancement of water resources.
- *Encourage* cooperation in water resources matters between landowners, stakeholders and local and provincial authorities.

- *Support* only sensitive and appropriate development and land uses in proximity to water resources.
- *Identify* all groundwater resources in the Plan Area for the purpose of their long-term protection and conservation.

Policies: Water Management

Action:

1. The establishment of land uses which would have a long-term negative impact on the quality or quantity of water resources shall be opposed. Specifically, land uses or development that may result in changes to the hydraulic regime of Brannen Lake and/or the Millstone River shall be opposed.
2. The preservation of natural vegetation adjacent to all surface water shall be encouraged.
3. The Regional District shall encourage the Province to enact enabling legislation regarding the management and protection of groundwater. In the event that this occurs this Plan shall be reviewed to ensure consistency with the legislation, where appropriate and applicable.

Development Activated:

4. The Approving Officer shall be requested to require that subdivisions be designed to protect water resources by maintaining the hydraulic regime of streams, providing for sufficient drainage, preventing the intrusion of erosion material or other pollutants, into surface water and maintaining levels of groundwater recharge.
5. When considering zoning amendment proposals where a proposed change in density and/or intensity of land use has the potential to impact the quantity or quality of water resources, the Regional District may require a hydrological impact assessment. In the case of groundwater, the assessment should address the long-term reliability of on-site groundwater and the potential for impact on groundwater supplies of adjacent properties. The assessment shall be undertaken by a qualified professional with proven knowledge and experience in this type of impact assessment.

2.2 ENVIRONMENTALLY SENSITIVE AREAS

Environmentally sensitive areas are areas of land or water that may be sensitive to human presence and activities or land development. Included within the Plan Area are naturally occurring water resources (including rivers, streams, creeks, lakes, wetlands and groundwater) and natural habitats that can be considered environmentally sensitive. Sites of historical, archaeological or scientific significance may also be considered as environmentally sensitive areas. The valuable contribution that these features make to the character and natural beauty of the Plan Area cannot be overlooked; they need to be recognized and protected from potentially damaging land uses and activities.

While the community advocates the preservation and protection of environmentally sensitive areas through individual- and community-based stewardship initiatives, public policy can serve a useful role of complementing these efforts. Stated policies in this section relate directly to the attainment of community objectives and guide not only the decision making of the Regional District but other government agencies as well; these agencies often rely on official community plans to define community priorities and decision-making parameters.

"Development permits are useful tools in protecting the natural environment, which complement conventional mechanisms (such as setbacks) by addressing the negative aspects of development or land use on a site-specific basis. In recognition of the community's desire to assume the primary responsibility for environmental protection, this Plan proposes the use of development permits only where the potential for environmental impact, as a result of land use change or development, is the greatest; as such, development permits are only required on environmentally sensitive land designated as Rural Residential in this Plan (see Section 4)." However, notwithstanding the above, as of March 31, 2006, Local Governments are required by the *Fish Protection Act* to protect all 'streams', as defined in the *Riparian Areas Regulation*. Therefore, development permit areas are designated adjacent to all watercourses within this plan area (see Section 4).¹

Objectives: Environmentally Sensitive Areas

- *Identify, preserve and protect* environmentally sensitive areas, including fish and wildlife habitat and conservation corridors.
- *Advocate* new land uses and development that are compatible with environmentally sensitive areas.
- *Advocate* existing land uses, development and activities to continue in an environmentally responsible manner.

¹ Bylaw No. 1055.03 adopted January 23, 2007

- *Recognize* that lands within the Agriculture and Forest Land Reserves shall not be subject to development permit requirements for environmentally sensitive areas and instead be preserved and protected through community and individual stewardship initiatives.
- *Advocate* and *support* stewardship of the natural environment through community and individual initiative and public education.

Policies: Environmentally Sensitive Areas

Action:

1. In recognition of the community's objective of preserving and protecting the natural environment and in order to provide focus and direction for community and governmental stewardship initiatives, land or water, which is sensitive to human presence, or is of historic, archaeological or scientific significance is deemed, for the purpose of this Plan, to be an environmentally sensitive area. These areas are indicated on Map No. 1, attached to and forming part of this Plan.
2. Environmentally sensitive areas as shown on Map No. 1 may not be limited to the areas indicated. The Regional District may undertake periodic amendments to these areas to recognize new information, changing on-site conditions or more comprehensive environmental assessments.
3. "All watercourses which meet the definition of 'stream' in the *Riparian Areas Regulation*, shall be included within a Development Permit Area in this Plan."²
4. The Regional District shall encourage the protection of land, which is deemed to be environmentally sensitive and shall oppose harmful development.

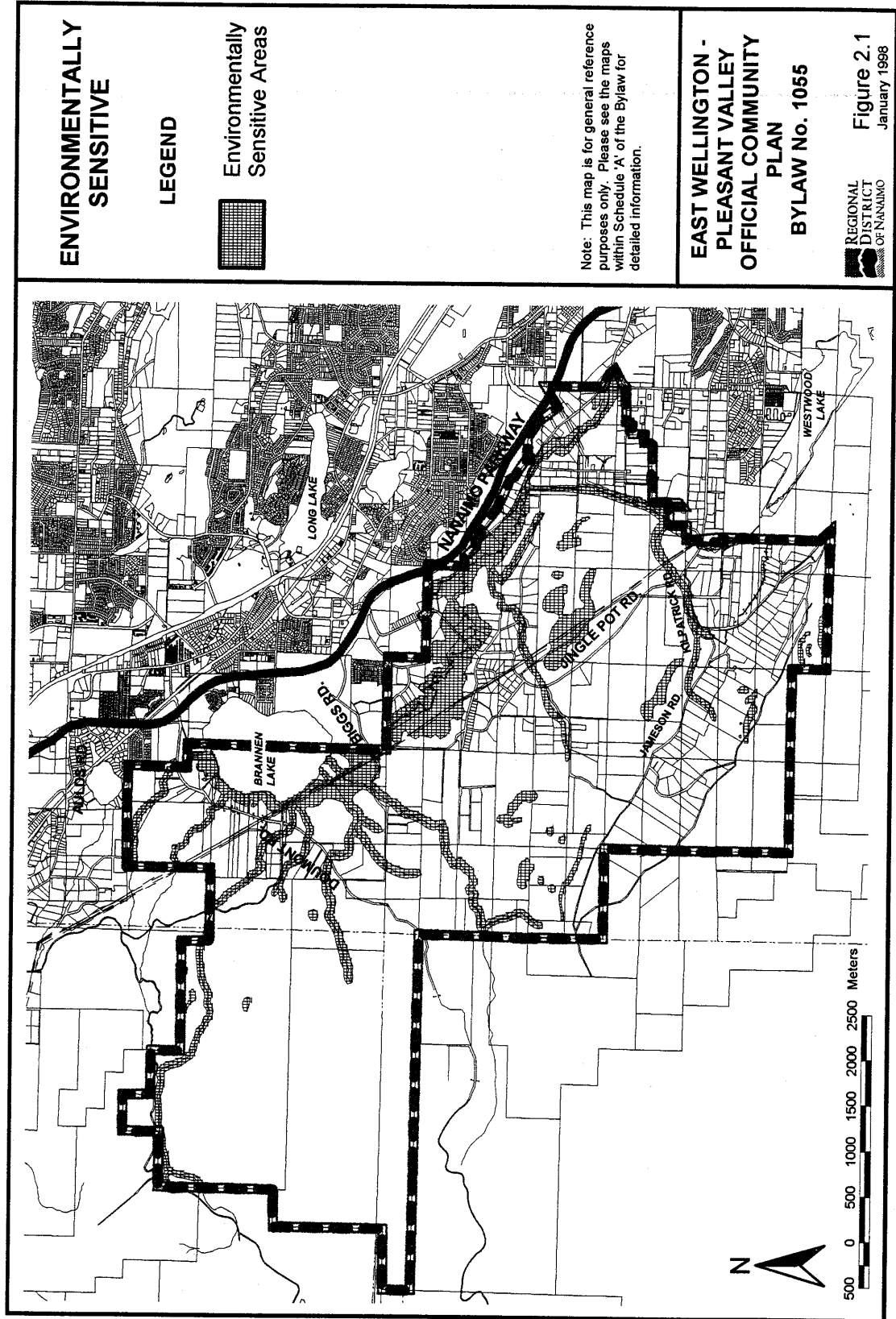
Development Activated:

5. The Regional District shall only support a zoning amendment application or the subdivision of land within or adjacent to an environmentally sensitive area provided that reasonable and acceptable evidence is provided that the proposed development will not adversely affect the environmentally sensitive area. In evaluating development proposals the Regional District shall give due consideration to:
 - a) soil stability, natural vegetation or ground cover;
 - b) wildlife and fish habitat;
 - c) quality and quantity of surface drainage and/or groundwater; and
 - d) adjacent land uses.

² By-law No. 1055.03 adopted January 23, 2007

6. Zoning amendment or development proposals shall be reviewed in relation to existing and potential archaeological sites and where sites are apparent, such applications shall be referred to the Heritage Conservation Branch of the Ministry of Municipal Affairs for comment.

Figure 2.1



2.3 NATURAL HAZARD AREAS

Natural Hazard Areas within the Plan Area consist of lands, which are subject to flooding or erosion. For example, the Millstone River can be regarded as a potential hazard to development based on the possibility of flooding. The removal of vegetation or alteration of land within its floodplain may consequently increase the probability of damage.

In order to protect development from potential hazards this Plan advocates the use of development permits to complement other regulatory devices, such as setbacks and flood controls. Development permits offer the flexibility to customize development standards to reflect specific on-site conditions. Associated guidelines are designed to minimize the impact potential of a hazard on persons and property.

Objectives: Naturally Hazard Areas

- *Minimize* the potential for personal injury or loss of property from natural hazards or impacts to environmental values.
- *Encourage* mitigation measures which are compatible with the needs of local residents and which are sensitive to the natural environment.

Policies: Naturally Hazard Areas

Action:

1. In recognition of the community's objective of minimizing the potential for personal injury or loss of property from natural hazards, land susceptible to flooding or high rates of erosion is deemed, for the purpose of this Plan, to be a potential Natural Hazard Area. These areas are indicated on Map No. 2, attached to and forming part of this Plan.
2. Natural Hazard Areas, as shown on Map No. 2, may not be limited to the boundaries indicated. The Regional District may undertake periodic amendments to the boundaries to recognize new information, changing on-site conditions or more comprehensive assessments.
3. In an effort to assist in minimizing the potential for personal injury or loss of property from hazardous conditions, those areas indicated as Natural Hazard on Map No. 2, shall be included within a Development Permit Area of this Plan.

Development Activated:

4. The Regional District shall only support a zoning amendment or subdivision proposal which is wholly or partially included within an Natural Hazard Area when reasonable evidence is provided that measures can and will be taken to ensure that the proposed land uses or development is able to withstand the effects of the hazard.

Figure 2.2

