7.0 LOCAL AREA POLICIES

The Plan area is comprised of distinct hamlets and communities. While they have much in common, their circumstances are also different in important ways. This section of the Plan outlines policies aimed at the unique challenges of individual hamlet areas.

7.1 Hatzic Island

The recreational amenities and rural atmosphere of Hatzic Island have made it a popular recreation and residential location for many decades. However, the attraction of the area, combined with its particular development history and environmental attributes, have created a number of difficult challenges for the community:

- The average density of development on Hatzic Island is high for an unserviced rural area due to the presence of non-conforming urban-type residential developments, mobile home parks, and recreational resorts. By most standards, unserviced development at the density found on Hatzic Island is not sustainable. Redevelopment of several non-conforming developments is unlikely due to legislation, land ownership structures, and form of the development currently existing.
- On-site sewage disposal fields may be contaminating groundwater and water supplies in some locations.
- Hatzic Island is within the Fraser River floodplain. Even high points on the Island are two metres below the elevation of a 1:200 Fraser River flood. Locations on the island are also subject to frequent minor flooding from within the Hatzic watershed which cause the most disruption and damage in low lying areas such as Everglades Resort.
- Residents of the Island are dependent on one access road and bridge; access may be cut off during major Hatzic floods.

For these and other reasons, the land use plans and zoning bylaws since the late 1960's have generally designated the Island for low density rural uses. In doing so, they rendered a number of existing developments "nonconforming".[43]

This plan continues the objective of these previous plans to generally limit development to existing levels. However, it includes important new directions that may improve the situation in meaningful ways. This plan contains new policies regarding:

a. legitimization of some non-conforming uses if current servicing, site development and flood mitigation standard can be met;
b. investigation of public sewer and water services to address environmental and human health risks;
c. the prospect of limited 'country residential'-type subdivision if community water or sewer infrastructure is achieved; and,

[43] The1968 Official Regional Plan for the Lower Mainland Planning Area designated the Island as a lowland rural area best suited to large rural holdings. Zoning was introduced to the community in 1972 by the Dewdney-Alouette Regional District. DARD Bylaw No. 28-1972 zoned much of the Island Rural-3 with a minimum site area of 20 acres. This direction has since been maintained in land use plans and zoning bylaws.

d. advocacy for infrastructure improvements to reduce flood hazards and enhance recreational values.

Non-conforming Uses

Occasionally, the adoption or amendment of a zoning bylaw will prohibit uses that were previously permitted. In these cases, lawfully existing uses established before the prohibiting bylaw are considered to be nonconforming, or 'grandfathered'. Rights surrounding lawfully non-conforming uses are set out in Section 911 of the Local Government Act (LGA). Section 911 allows lawfully established non-conforming uses to continue while eventually facilitating their elimination. The tension inherent in this purpose is obvious. Not surprisingly, a large and complex body of case law dealing with statutory nonconforming use has evolved which, from time to time, changes how the legislation is understood. It is essential to consider this case law when applying Section 911 in a particular instance.

Generally, Section 911 actively works towards conformance by preventing an increase in the scale of the use and limiting the duration of the use to the 'natural' life of the structure. In addition, nonconformance with zoning may depress the value of a property and increase difficulty in obtaining insurance, mortgages and financing. The net effect is to encourage replacement of the nonconforming use with one that conforms to the zoning bylaw.

However, in some instances the legal framework combined with practical considerations such as ownership structure and the nature of the use, leaves little or no expectation that conformity will be achieved, even in the long term. The result may be that a nonconforming use is permitted, and expected, to continue indefinitely but is still subject to the depressing affects of non-conforming status. In these instances, nonconforming status may create uncertainty and stifle investment necessary for the maintenance of safe and healthy residences or neighbourhoods. It can become difficult to sell or transfer interests, achieve market value, and obtain mortgages or financing necessary for upgrades and repairs. As a result, developments may steadily degrade over time without any clear mechanism for renewal and replacement. Some of the lawfully nonconforming developments on Hatzic Island may fall into this category.

It is the policy of the Regional Board that:

7.1.1 Where the Regional Board considers that there is low likelihood of achieving conformity with zoning over time, the Board may treat lawfully non-conforming uses on Hatzic Island as Class II nonconformities under Section 5.7 of this Plan and rezone to reflect actual existing uses subject to:

a. connection to a community water or sewer system, or where no public system is available, upgrade of on-site systems to meet acceptable standards;
b. implementation of appropriate site development standards;
c. no increase in density, scale or intensity of development;
d. no increase in hazard or exposure to risk;
e. ability to meet flood construction levels and setbacks; and,
f. adequate access.

Services

Sewage Disposal

Development on Hatzic Island relies on on-site water supplies and sewage disposal systems. The sewage disposal systems that are most commonly used on Hatzic Island are deep trench type systems where the trench depths are extended to the more permeable, deeper sand layer to avoid the less permeable top soils.[44] This may bring systems into conflict with groundwater, which is typically high on Hatzic Island, at least seasonally.

Many significant developments on Hatzic Island were constructed in the 1960's and 1970's, often before Provincial regulations respecting septic field design were introduced. "There are numerous sewage disposal systems of which some may be inadequately sized, subject to seasonal failure, failing currently, and/or encroaching on water wells."[45] These septic fields are likely not fully functioning or are nearing the end of their anticipated lifespan.

In the case of nonconforming developments, replacing failed septic systems may be difficult due to the hydro-geological conditions and the extent of development on the properties. Package treatment plants or alternative disposal systems may be an option, but potentially a costly one. Moreover, package treatment plants may be more difficult to operate and maintain than conventional systems. In any event, failure of a septic system in such a development could affect a significant number of people and result in pressure for public sanitary sewer and water systems.

In 2004, of residents who respond to the Community Planning Survey, 47% were very concerned that improper treatment and disposal of sewage may be reducing water quality. Another 25% of respondents were somewhat concerned. 35% of respondents reported problems with their own sewage disposal system. It is not surprising, then, that 75% of respondents to the Community Planning Survey supported the concept of a community sewage system for Hatzic Island.[46]

As a part of the OCP update process, the Regional District, in partnership with the District of Mission, commissioned Dayton & Knight Consulting Engineers to assess the feasibility of developing a sanitary sewer system for Hatzic Island and Hatzic Estates (in Mission). Dayton & Knight evaluated three potential options: 1. individual on-site ground-disposal systems; 2. a community collection system and treatment plant; and, 3. connection to the District of Mission collection system for conveyance to the JAMES Plant for treatment.

While individual on-site systems may have some application, they were not recommended as the basis of a servicing strategy for the area due to high water table, high capital costs, and high operations/maintenance costs. A community treatment plan was not recommended because of challenges with siting the plan, operation/maintenance issues, and social issues. Dayton & Knight recommend connection to the District of Mission system for conveyance to the JAMES Plant. This would involve a local collection system – either a partial gravity system or a low pressure system - and a conveyance system to move the sewage into the Mission system and on to the JAMES Plant. The capital costs were estimated at five to seven million dollars.

[44] Fraser Health Authority. Letter to FVRD dated April 5, 2004 regarding Sewage Disposal on Hatzic Island.

[45] Central Fraser Valley Health Unit. *Hatzic Island Water Quality Survey*. April, 1994.

[46] For more information on the 204 Community Planning Survey, please see Section 1 of this Plan.

Certainly, the costs for a public sanitary sewer system for Hatzic Island and Hatzic Estates are high. It is likely that significant financial assistance from senior governments would be necessary to make capital costs affordable to the community. However, community perceptions of acceptable cost levels could change, particularly with greater awareness of the costs involved with replacement of failed individual on-site systems with new ones that meet current requirements.

A public sanitary sewer system for Hatzic Island would address existing concerns with water quality, human health, density of development, and impacts to the environment. It would not facilitate significant new development because land use and density on Hatzic Island is constrained by local and Fraser River flood hazards; limited access; existing land use and development patterns and other limitations. Accordingly, costs would not generally be offset by new development. Nevertheless, the presence of a sanitary sewer would undoubtedly generate substantial pressure for intensification of development.

Water Supply

Most Hatzic Island residents have acceptable water supplies. Sixty percent of respondents to the *2004 Community Planning Survey*[47] were generally satisfied with their drinking water. Yet, the quality of drinking water is a concern for many.

Hatzic Island residents generally obtain drinking water from on-site shallow (- 10 m) wells or sand points.[48] Shallow wells and sand points are at greater risk of contamination from septic fields, agricultural wastes or other surface pollutants compared to deeper wells. In addition, the Nicomen Slough Aquifer, the source of Hatzic Island drinking water, is classified by the Ministry of Environment as "highly vulnerable" to contamination from surface sources. The aquifer has little natural protection against surface contaminants. Furthermore, Hatzic Lake is undergoing sedimentation and eutrophication. Water is exchanged between the lake and groundwater which may also negatively impact drinking water quality, particularly phosphate levels.[49] This is an ongoing process which is not likely to be reversed.

Some private water systems serving high density non-conforming developments and recreational resorts regularly face boil orders. In a recent test of 12 wells on Hatzic Island, four wells had nitrate levels "of concern" (+3 mg/l) and one well exceeded national drinking water standards for nitrate concentration (+10 mg/l).[50] Wells with high nitrates were near or within urban-type developments; septic systems appear to be the source of contaminants.

The dense concentration of septic fields, the natural vulnerability of the aquifer to surface contamination, shallows wells, and the effect of Hatzic Lake on drinking water quality all interact to increase overall risk to the water supply. The risk can be expected to increase over time if the status quo is maintained.

Sixty eight percent of *Community Planning Survey* (2004) respondents supported the concept of a community water system. While a subsequent proposal for a water system to serve Hatzic Island and Hatzic Prairie was opposed, presumably due to cost, it may be appropriate to now investigate the potential for a water system to serve Hatzic Island only.

[47] See Section 1.4 of this Plan for more information about the 2004 Community Planning Survey.

[48] In the 2004 Community Planning Survey, 84% of respondents stated that they rely on a well or sand point for drinking water.

[49] Magwood, 2004.

[50] Simone Magwood. *Drinking Water Quality in the Hatzic Valley, BC*. UBC Master's Thesis. 2004.

It is the policy of the Regional Board that:

7.1.2 The Regional District will undertake a study to assess the feasibility of providing a public sewage disposal system to Hatzic Island and canvas the Hatzic Island community to gauge interest in establishing a Service Area.

7.1.3 The Regional District will liaise with the District of Mission regarding the potential to develop for Hatzic Island a community sewage collection system which connects to the District of Mission sanitary sewer.

7.1.4 If there is community interest in establishing a public sewage disposal system for Hatzic Island, the Regional District will seek funding support from senior governments.

7.1.5 The Regional District will continue to investigate the feasibility and costs of providing a public water system to Hatzic Island, including connection to the Abbotsford-Mission Water and Sewer Commission system. Liaison with Abbotsford-Mission Water and Sewer Commission to determine feasibility and potential impacts on the water supply is an essential part of this investigation.

7.1.6 In the event that public community water or sewer services become available on Hatzic Island, the Regional Board may consider Plan and zoning amendments to facilitate limited 'country-residential' type subdivision of one (1) hectare parcels on Hatzic Island.

7.2 Hatzic Lake

Lake Levels

Low summer lake level was rated as the most important issue facing Hatzic Island in the *2004 Community Planning Survey*.[51] During summer months, the water levels naturally drop so low that recreational use of the lake is severely impacted. The Dewdney Area Improvement District is investigating modifications to the Hatzic Pump Station which would allow water impoundment in the summer to raise water levels. Such modifications are supportable provided that they do not increase the risk of flooding or negatively impact habitat and fish passage.

Flooding

The 90 km^2 Hatzic watershed drains through Hatzic Lake to the Fraser River. During moderate to heavy rainfall events, low lying areas surrounding Hatzic Lake experience minor floods which impact private property, particularly at Everglades Resort. In more extreme events, flood water levels within the Hatzic system could reach 5.2 metres above sea level which would result in more significant property impacts and safety risks.[52] A number of factors contribute to the

[51] Please see Section 1 of this Plan for information about the 2004 Community Plan Survey.

[52] Associated Engineering. *Hatzic Prairie Drainage Study*. August, 1992.

flooding, including low watercourse gradients, historical channel alterations, channel constrictions, sedimentation, and pump capacity.

When the Fraser River level is lower than water levels in the Hatzic system, water drains by gravity to the Fraser. When the Fraser River rises above the level of the Hatzic system, the flood boxes at the Hatzic Pump Station close and water from the Hatzic watershed must be pumped into the Fraser. Existing pumps are insufficient to move the volume of water draining from the Hatzic system during even moderate rainfall events.

Hatzic Lake flooding was examined in 1992 by Associated Engineering (AE) and in 2003 by Golder Associates. AE concluded that tripling pump capacity would not eliminate flooding during 1:10 year / 2-day storm events. However, it would significantly reduce the frequency of minor flood events and reduce flood elevations and durations during major floods. Golder recommended upgrades to increase pumping capacity to 14.0-20.5 m^3/s.[53] Upgrades to the Hatzic Pump Station are discussed Section 11 of this Plan. The effects of the Hatzic Pump Station on fish passage are discussed in Section 12.

Lake Access

Public access to Hatzic Lake is problematic. The Crown has preserved public access points, but they are generally impassible due to vegetation, fencing or other barriers. Understandably, landowners have little interest in increasing public access. It is a relatively small lake. Existing levels of use, especially with low summer lake levels, may already approach its recreational capacity. On the other hand, Hatzic Lake is a public resource and amenity. As such, it should be available to those who do not own land along its shore. In other areas, as a matter of policy and principle, the Regional Board has sought to protect properly-managed public access to lakes and to resist the tendency toward privatization and alienation of public amenities.

It is the policy of the Regional Board that:

7.2.1 The Regional Board encourages the efforts of the Dewdney Area Improvement District to maintain summer water levels in Hatzic Lake that are suitable for recreation provided that:

a. there is no increase in the risk or consequence of flooding;
b. there is no negative impact on habitat and fish passage between the Fraser River and the Hatzic system is not impeded;
c. the works are designed and supervised by a qualified hydraulic engineer; and,
d. all necessary Federal, Provincial and local approvals are obtained.

7.2.2 The Responsible Authorities are encouraged to undertake a study of user needs related to public access to Hatzic Lake.

[53] Golder Associates LTD. *Hatzic Pump Station Upgrade Strategic Plan*. July 16, 2003.