

GOAL 7 - IMPROVE SERVICE AND RESOURCE USE EFFICIENCY

Park, community and school facilities are important to the quality of life and economy of Arrowsmith Benson - Cranberry Bright. The location of existing facilities are identified and policies are provided to improve service efficiency.

Likewise, to improve efficiency, strategies are established for infrastructure services: community water, community sewer, storm water management, fire protection and solid waste disposal.

PARK AND COMMUNITY FACILITIES

Existing facilities are concentrated within the Extension Village, Urban Boundary; a large community park, community hall and public primary school are located adjacent to one another on Ryder Street. The community park and hall are owned and operated by the Extension Parks and Recreation Commission. Together these three facilities provide an important community focus.

In areas designated Rural Residential, Rural or Resource, parks are limited to a number of small community parks in established neighbourhoods and Mount Arrowsmith Regional Park. (Mount Arrowsmith Regional Park is addressed in Goal 6 – Create a Vibrant and Sustainable Economy under the heading of Outdoor Recreation and Tourism.)

Arrowsmith Benson – Cranberry Bright contains a number of natural landscapes and corridors with **regional** significance. These resources have been identified as a potential stimulus for the development of a local, tourist/recreation service sector. However, most of these natural landscapes and corridors are located on private land; landowners are concerned that unauthorized public access may restrict their private use or enjoyment of the land. Public-private partnerships with landowners are seen as a way of addressing these concerns and maximizing the efficiency of public resources.

Objectives:

- *Provide* criteria to guide the acquisition of park land.
- *Facilitate* the protection and provision of public access to regionally significant, natural landscapes and corridors.
- *Encourage* the provision of park and community facilities in cooperation with landowners and community organizations.
- *Facilitate* the development of a local, tourist/recreational, service sector (see Goal 6 – Create A Vibrant and Sustainable Economy).
- *Protect* and *enhance* the community focus created by the adjacent location of Extension Community Park, Extension Community Hall and Extension Elementary School.

Policies:

- 1) Existing community and regional parks, as of the date of the adoption of this Plan, are as shown on Map No. 5, Parks, Community, and School Facilities, Sheets 1 to 3.
- 2) Parks may be permitted within all land use designations and will be exempt from minimum lot size requirements for the subdivision of land.
- 3) Park land acquisition will be desirable where the land meets one or more of the following criteria:
 - a) the land includes environmentally sensitive lands;
 - b) the land links environmentally sensitive areas as part of a natural corridor;
 - c) the land includes historical or archeological features;
 - d) the land abuts the Nanaimo River or includes other regionally significant, natural landscapes as identified by the *Regional District of Nanaimo Parks System Plan*, as shown as of the date of adoption of this Plan, on Map No. 5, Parks, Community, and School Facilities, Sheets 1 to 3;
 - e) the land includes regionally significant, recreational corridors such as the Trans Canada Trail, or those referenced in the *Regional District of Nanaimo Parks System Plan*, including the historic Morden Colliery Railway Right of Way, which includes the Extension Mine shaft entrance;
 - f) the land includes locally significant, natural landscapes;
 - g) the land improves access to a river or lake;
 - h) the land connects neighbourhoods to parks, community facilities, school facilities or community focal points; or
 - i) the land includes or enhances an existing community focal point such as that created by the Extension Community Park, Extension Community Hall and Extension Elementary School as shown on Map No. 5; Parks, Community, and School Facilities, Sheets 1 to 3.
- 4) The protection and provision of public access to regionally significant, natural landscapes and corridors will be supported as a regional, as opposed to a local community, function.
- 5) At the time of subdivision, the Regional Board will determine whether the owner of the land being developed will provide the following:
 - a) without compensation, park land equivalent to 5%;
 - b) cash-in-lieu of park land dedication in an amount equal to the market value of the land as determined by Regional Board policy; or
 - c) a combination of land and cash-in-lieu to the satisfaction of the Regional Board.
- 6) At the time of subdivision of land adjacent to a stream as defined in the *Riparian Area Regulation*, it may be recommended to the Approving Officer that access to the stream be provided only where the applicant is proposing access in the location with the least environmental impact as identified in a report prepared by a Qualified Environmental Professional subject to the approval of the Department of Fisheries and Oceans Canada and the Ministry of Environment. In the case of public beach access roads, the Regional District will require an assessment of location options for suitable public beach access road designations prior to a decision by an Approving Officer for locating a beach access road right-of-way pursuant to Section 75 of the *Land Title Act* and the *Highway Act*. The assessment of public beach access location suitability will be pursuant to 'Access Near

Aquatic Areas Guidelines' of the Ministry of Environment, Lands and Parks, and the *Fish Protection Act*.¹

- 7) Encroachment permits by private individuals to occupy road ends, which provide access to a watercourse or lake will not be supported.
- 8) Public-private partnerships with landowners and non-profit organizations will be encouraged to protect and provide public access to the following:
 - a) land abutting the Nanaimo River and other regionally significant, natural landscapes as identified in the *Regional District of Nanaimo Parks System Plan*, as shown as of the date of adoption of this Plan, on Map No. 5, Parks, Community, and School Facilities, Sheets 1 to 3; and
 - b) regionally significant, recreational corridors such as the Trans Canada Trail, and those referenced in the *Regional District of Nanaimo Parks System Plan* including the historic Morden Colliery Railway Right of Way, which includes the Extension Mine shaft entrance.

(The use of private land for outdoor recreation, must be authorized by the owner and be in compliance with the terms and conditions of the owner.)

- 9) The location of existing community facilities, as of the date of adoption of this Plan, are as shown on Map No. 5, Parks, Community and School Facilities, Sheets 1 to 3.
- 10) The location of community facilities may be permitted on lands designated Village Centre, Rural Residential or Rural in accordance with the following criteria:
 - a) the location of community facilities will be encouraged on land within the Extension Village, Urban Boundary;
 - b) within the Extension Village, Urban Boundary, the location of community facilities will be encouraged on land adjacent to the Extension Community Park, Extension Community Hall or Extension Elementary School; and
 - c) the location of community facilities on lands designated Rural Residential or Rural may be supported provided one or more of the following criteria apply:
 - i) suitable land is not available within the Extension Village, Urban Boundary;
 - ii) the use is dependent on local natural amenities; or
 - iii) the use primarily services a local need.
- 11) The Regional District will consult with the Extension Parks and Recreation Commission on matters related to the acquisition or development of parks or community facilities within the Extension Village, Urban Boundary.
- 12) Public-private initiatives to provide community facilities will be encouraged.

SCHOOL FACILITIES

Arrowsmith Benson - Cranberry Bright is within the service boundary of School District 68. The School District is responsible for the provision of educational instruction and facilities.

¹ Bylaw No. 1148.04, adopted January 23, 2007

District 68 operates one school in Arrowsmith Benson - Cranberry Bright. Extension Elementary School is located within the Extension Village, Urban Boundary and provides Grade 1 and 2 instruction. The School is an integral part of the community of Extension. The Extension Elementary School, Extension Community Park, and Extension Community Hall are all located adjacent to one another; together they provide a defining community focus. Consequently, the continued operation of the School is of critical importance to the community.

To reinforce the sense of community within Extension, an expansion of the Grades taught and the area serviced by the School is encouraged. Furthermore, the use of the School to provide opportunities for community recreation, cultural activities and educational programs during non-school hours is also encouraged.

School District 68 has advised the Regional District that over the last five, years, the School District's Five Year Capital Plan has called for a new elementary school to be built in Cinnabar, in the City of Nanaimo. The new Cinnabar Elementary School was to off load over-enrollment from Chase River Elementary, which is within the City of Nanaimo, and to provide new accommodation for the students now attending Extension Elementary. Extension Elementary was to be closed when the new Cinnabar School was completed. In the 1999/2000 Capital Plan, the Ministry of Education has provided funding for the design of Cinnabar Elementary and has stipulated that the School District will be required to sell Extension Elementary (including the site) to help pay for the new school at Cinnabar.

Objectives:

- *Maintain and expand* the provision of elementary school services within the Extension Village, Urban Boundary.
- *Coordinate* school site and land use planning.

Policies:

- 1) The continued operation and expansion of Extension Elementary School will be encouraged.
- 2) The use of Extension Elementary School to provide primary education for the residents of Extension and other developments north of the Nanaimo River will be encouraged.
- 3) The coordinated management of the Extension Elementary School facility and lands with the Extension Community Hall and Extension Community Park to fulfill the educational and community needs of the area will be encouraged.
- 4) The maintenance of the heritage aspects of Extension Elementary School will be encouraged.
- 5) The location of educational facilities may be permitted on lands designated Village Centre, Rural Residential or Rural in accordance with the following criteria:
 - a) the location of educational facilities will be encouraged within the Extension Village, Urban Boundary; and
 - b) the location of educational facilities on lands designated Rural Residential or Rural may be supported provided suitable land is not available within the Extension Village, Urban Boundary.

- 6) The School District will be consulted on an annual basis on the following issues:
 - a) the actual and anticipated needs for school facilities and support services;
 - b) the size, number, and location of the sites anticipated to be required for school facilities;
 - c) the type of school anticipated to be required on these sites;
 - d) when these school facilities and support services are anticipated to be required; and
 - e) how existing and proposed school facilities relate to existing or proposed community facilities in the area.

WATER SUPPLY

The headwaters of both the Nanaimo and Englishman Rivers are located within Arrowsmith Benson – Cranberry Bright. These rivers are the water source for most of the urbanized areas of the Regional District. The Greater Nanaimo Water District obtains its water from the Nanaimo River and the Englishman River will soon become the supply source for the Englishman River Bulk Water System.

Within Arrowsmith Benson - Cranberry Bright, the Southwest Extension Waterworks District maintains and operates a water distribution system within the Extension Village, Urban Boundary (see Map No. 6, Community Water, Sewer and Fire Protection Areas, Sheet 1 of 3). The Waterworks District purchases the water from the Greater Nanaimo Water District.

Outside of the Extension Village, Urban Boundary, groundwater is the principle source of water supply.

Typically land that is provided with community water service can support a higher intensity of development than unserved land. The provision of community water service in areas designated Rural Residential, Rural or Resource could substantially alter their character and the economic viability of traditional activities. For example, an increase in the number and reduction in the size of lots would decrease land-based, economies of scale and may result in increased land use restrictions. Consequently, community water service to facilitate development is only supported for lands within the Extension Village, Urban Boundary.

Objectives:

- *Identify* regional, surface water, supply sources.
- *Protect* the quantity and quality of surface and groundwater.
- *Ensure* community water service is planned for lands within the Extension Village, Urban Boundary.
- *Ensure* the expansion of community water service does not compromise rural character.
- *Minimize* the impact of community water service on the natural environment.
- *Ensure* that the location of community water facilities are compatible with surrounding land uses.
- *Support* water conservation efforts.

Policies:

- 1) The portions of the Nanaimo River and Englishman River watersheds, which supply community water systems are as shown on Map No 3, Inventory of Natural Environmental Features, Sheet 1 of 1.
- 2) The Regional District will strive to protect lands within the watersheds for the Nanaimo River and Englishman River community water supply systems for the purpose of maintaining and where appropriate, enhancing water quantity and quality. (The *Forest Land Reserve Act* prohibits this policy from restricting a forest management activity relating to timber production or harvesting within the Forest Land Reserve.)
- 3) Surface and groundwater quantity and quality will be protected in accordance with the policies of Goal 4 – Protect the Natural Environment. Additional protection of surface and groundwater quantity and quality in regards to aggregate and mineral resources will be provided in accordance with the policies of Goal 6 – Create a Vibrant and Sustainable Economy.
- 4) The Proposed Community Water Service Area, which corresponds to the Extension Village, Urban Boundary, and the Proposed Restricted Community Water Service Area are as shown on Map No. 6, Community Water, Sewer and Fire Protection Service Areas, Sheet 1 of 3.
- 5) The provision of community water service to lands located within the Proposed Community Water Service Area and the Proposed Restricted Community Water Service Area will be supported in principle. The Southwest Extension Waterworks District will be encouraged to expand its service area to include all lands within the Proposed Community Water Service Area and the Proposed Restricted Community Water Service Area (see Map 6, Community Water, Sewer and Fire Protection Service Areas, Sheet 1 of 3). Alternatively, the Regional District will be encouraged to investigate the feasibility, cost and community support for the establishment of a water, local service area owned and operated by the Regional District to service areas within the Proposed Community Water Service Area and Proposed Restricted Community Water Service Area which are not serviced by the Southwest Extension Waterworks District.
- 6) The Proposed Community Water Service Area is the area of land that may be provided with community water service to facilitate development subject to the approval of the Southwest Extension Waterworks District and the Greater Nanaimo Water Board.
- 7) The Proposed Restricted Community Water Service Area is the area of land where community water service may be provided subject to the approval of the Southwest Extension Waterworks District and the Greater Nanaimo Water Board for agricultural production or to resolve existing environmental concerns or water quality deficiencies in relation to the 1989 edition of *Guidelines for Canadian Drinking Water Quality*, as published by Health and Welfare Canada, provided on-site resolution of the problem is not possible and additional development is not facilitated by the service.
- 8) The Proposed Restricted Community Water Service Area may be amended to include those lands shown as Proposed Restricted Community Water Service Area – Possible Expansion Area on Map No. 6, Community Water, Sewer and Fire Protection Service Areas, Sheet 1 of 3, only if the land is removed from the FLR.

- 9) Community water services will be designed to accommodate the build-out population of the Proposed Community Water Service Area in accordance with the policies of Goal 2 – Create Complete Communities.
- 10) Community water services will be designed to accommodate only the existing development potential of lands within the Proposed Restricted Community Water Service Area or within the Proposed Restricted Community Water Service Area – Possible Expansion Area.
- 11) The provision of community water service may be considered outside of the Proposed Community Water Service Area or Proposed Restricted Community Water Service Area for providing water for agricultural production or to resolve existing environmental concerns or water quality deficiencies in relation to the 1989 edition of *Guidelines for Canadian Drinking Water Quality*, as published by Health and Welfare Canada, provided on-site resolution of the problem is not possible and additional development is not facilitated by the service.
- 12) The approval of new private utilities by the Ministry of Environment, Lands and Parks to facilitate the development of land will not be supported.
- 13) Regardless of location, where publicly held facilities are approved for development, the Regional District may approve the provision of community water service.
- 14) Public utility uses may be permitted in all land use designations and will be exempt from minimum lot size requirements for the subdivision of land.
- 15) The provision of community water service infrastructure in accordance with the following criteria will be encouraged:
 - a) avoid if possible, the disturbance of surface or groundwater systems, sensitive ecosystems and the nesting trees of species protected under Section 34 of the provincial *Wildlife Act*; and
 - b) minimize negative impacts on the natural environment and surrounding land uses.
- 16) An expansion of the Extension Water Chlorination Facility will not be supported and the eventual relocation of the Facility to lands removed from residential development will be encouraged.
- 17) Water conservation measures and programs to reduce the volume of water consumed within the community will be encouraged.

SEWERAGE

Conventional, ground disposal, septic systems are currently the most predominant form of wastewater treatment and disposal in Arrowsmith Benson - Cranberry Bright. In conventional systems, wastewater from sinks, tubs and toilets is flushed into a tank that separates and stores the waste. Bacteria help to break down some of the heavier sludge and floating scum, but the remaining solids accumulate in the tank until it is pumped out. The wastewater (or effluent) flows from the tank into a distribution box that evenly divides the discharge into a network of pipes that lie buried in gravel-filled trenches in a drain field. Small holes in each pipe allow the

wastewater to seep through the gravel, then into the soil. As effluent trickles through the soil, any remaining particles are removed by natural filtration and bacterial action. When wastewater doesn't get the full treatment, contaminants can leach into groundwater that supplies water wells, or drain directly into watercourses, or onto properties.

Private wastewater treatment plants also have limitations. They are usually owned and operated by the owners of the property served by the plant, and may malfunction if not properly operated and maintained. Furthermore, ultimately these treatment plants rely on ground disposal and are subject to technological and physical site limitations.

The Regional District of Nanaimo's Liquid Waste Management Plan identified areas where there are ground disposal septic systems that have failed or may fail in the near future. These conclusions were based on several factors: (1) presence of shallow soils; (2) high water tables during the wet season; (3) the age of septic systems; and (5) the Ministry of Health's data and knowledge of neighbourhood septic disposal conditions. Extension was identified as a potential problem area due to the presence of poor soils, a high water table and small lots. To address this situation, the feasibility of community sewer service will be examined for lands designated Village Centre.

Objectives:

- *Ensure* community sewer service is planned for lands designated Village Centre.
- *Ensure* the provision of community sewer service does not compromise rural character.

Policies:

- 1) The Proposed Community Sewer Service Area, which corresponds to the boundaries of lands designated Village Centre, is as shown on Map No. 6, Community Water, Sewer and Fire Protection Service Areas, Sheet 2 of 3.
- 2) The provision of community sewer service to those lands located within the Proposed Community Sewer Service Area will be supported in principle. The Regional District will be encouraged to undertake an assessment of sewage system options in accordance with the three Phase process of the *Liquid Waste Management Plan (Stage 3 Report)* of the Regional District. Throughout the process, a committee comprising local representatives of ratepayer groups, environmental groups, Regional District staff, the Ministry of Environment Lands and Parks, and Ministry of Health would provide guidance.

Phase 1 – Preliminary Assessment: undertake a concept level assessment of a number of possible solutions that appear feasible. The intent is that only those options with merit would be advanced for further assessment in Phase 2. A public consultation program would provide input to the decision making process.

Phase 2 – Pre-Design Assessment: generally two or possibly three options would be advanced for further study in this Phase. Pre-design work would be undertaken, including the feasibility of approving authority approval. Cost estimates would be developed. Further

public consultation would be a normal requirement of the Phase 2 Assessment. The culmination of the Phase 2 Assessment would be the selection of a preferred option.

Phase 3 – Project Implementation: this Phase would advance the selected option through the Preliminary Engineering Stage, the Project Authorization Stage, the Design and Tendering Stage, and the Construction and Commissioning Stage. The Project Authorization Stage would consist of (1) allowing the project to proceed under the authority of an amendment to the Liquid Waste Management Plan to include the project or (2) to otherwise seek legal authority to finance and implement the project. A separate public information/participation process, directed toward immediate area residents would form part of the Design and Tendering, and Construction and Commissioning Stages.

- 3) Community sewer services will be designed to accommodate the build-out population of the Proposed Community Sewer Service Area in accordance with the policies of Goal 2 – Create Complete Communities.
- 4) The provision of community sewer service may be considered outside of the Proposed Community Sewer Service Area to resolve existing environmental or health problems provided on-site resolution of the problem is not possible and additional development is not facilitated by the service.
- 5) Regardless of location, where publicly held facilities are approved for development, the Regional District may approve community sewer service.
- 6) Public utility uses may be permitted in all land use designations and will be exempt from minimum lot size requirements for the subdivision of land.

STORM WATER MANAGEMENT

Land use has an impact on storm water drainage. Development results in the construction of roads and site alterations, which alter natural, surface, drainage channels. Furthermore, the amount of non-permeable surfaces is increased (e.g. pavement, roofs, etc.) and the amount of site vegetation is reduced. This decreases the amount of precipitation, which enters the groundwater system and the amount absorbed by vegetation thereby increasing the amount and rate at which precipitation enters the surface drainage system. Consequently in certain situations, storm water management is required to ensure development does not result in the flooding of surrounding properties.

The Ministry of Transportation and Highways is responsible for ensuring that adequate drainage facilities exist for public roadways. The Ministry does not provide storm water management to deal with non-road related alterations to the natural drainage system. However, it is recognized that there are existing drainage problems, which have potentially resulted from a failure to fully consider the storm water management implications of development. Recent legislative changes allow the Regional District to provide storm water management through the establishment of local service areas.

No storm water, local service areas have been established in Arrowsmith Benson - Cranberry Bright. Storm water management, however, is a concern within the Extension Village, Urban

Boundary given development potential and the area's high water table. The establishment of a storm water local service area may be required to implement the land use policies for lands within the Extension Village, Urban Boundary (see Goal 2 – Create Complete Communities).

Objectives:

- If necessary, *ensure* storm water management is planned for lands within the Extension Village, Urban Boundary.
- *Ensure* the method of storm water management does not compromise rural character.
- *Utilize* storm water management practices, which minimize the impact on the natural environment.

Policies:

- 1) The Regional District will be encouraged to investigate the necessity, feasibility and cost of instituting community storm water management for lands within the Extension Village, Urban Boundary in accordance with the *Liquid Waste Management Plan (Stage 3 Report)* of the Regional District.
- 2) Community storm water management will be in accordance with the following criteria:
 - a) Where appropriate, natural drainage systems, including constructed wetlands and biofiltration ponds, will be used in accordance with the Ministry of Environment, Lands and Parks, *Land Development Guidelines for the Protection of Aquatic Habitat*.
 - b) The total area of impervious surfaces will be limited to maintain pre-development flow regimes.
 - c) The Ministry of Environment, Lands and Parks and the Federal Department of Fisheries and Oceans will be consulted before approving infrastructure, which directly, or indirectly, connects to a fisheries-sensitive watercourse.
 - d) Public utility uses may be permitted in all land use designations and are exempt from minimum lot size requirements for the subdivision of land.
 - e) The use of oil separators for the drainage of paved areas will be supported.

Fire Protection

Within Arrowsmith Benson - Cranberry Bright, there are three separate fire protection areas as of the date of the adoption of this Plan (see Map No. 6, Community Water, Sewer and Fire Protection Service Areas, Sheet 3 of 3).

Community interest has been expressed regarding the expansion of the fire hydrant system within the Extension Fire Protection Area and the expansion of the Extension Fire Protection Area to include lands within the area of Twilight Way and west along Nanaimo River Road. The Extension and District Volunteer Fire Department and the Regional District are currently investigating the feasibility of these expansions.

Solid Waste Disposal

The Regional District currently provides residential garbage collection and recycling services to properties within Arrowsmith Benson – Cranberry Bright. The existing regional landfill, located in the City of Nanaimo, is nearing capacity. A comprehensive solid waste management plan, which will address the issue of solid waste disposal, is currently being developed.

The residents of Arrowsmith Benson – Cranberry Bright strongly oppose the siting of a landfill within the Plan Area.