Section 5

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1 Introduction

1.1 Designation

The Local Government Act Sections 919 and 920 allows the RDN to establish Development Permit Areas in order to protect the environment and public safety, or to address design criteria beyond the provisions of zoning and subdivision bylaws.

The Bowser Village Centre Development Permit Area (DPA) is an important tool for ensuring that future development in Bowser Village Centre achieves the goals and objectives of the Bowser Village Centre Plan.

The Bowser Village Centre Development Permit Area is designated under Section 919.1 (1) of the Local Government Act, for the purpose of establishing objectives:

- For the protection of the natural environment, its ecosystems and biological diversity.
- To protect development from hazardous conditions.
- For the form and character of intensive residential, commercial, industrial or multi-residential development.
- To promote conservation of water and energy and the reduction of greenhouse gas (GHG) emissions.

1.2 Justification

Bowser Village Centre has been the historical location of businesses for the past 90-100 years providing products and services to the wider Area ‘H’ community.

The community has expressed its desire to see Bowser Village Centre maintain its role as the focus of retail shops and services and to gradually become a more vibrant mixed use core with residential uses close to shops, services and other amenities.
Justification Continued.....

The desire is to see Bowser Village Centre evolve into a ‘compact’, ‘mixed-use’ village where people can live, work, play and learn in a safe, healthy and attractive environment.

The Bowser Village Centre Plan provides direction for:

1. Enhancing quality of life and safety by encouraging pedestrian friendly streets, and vibrant gathering spaces that support active and healthy residents.

2. Ensuring that future development is designed to complement and protect natural systems and features, with protection of groundwater being a top priority.

3. Encouraging energy efficient buildings, sites and streetscapes.

4. Defining attractive gateways and entrances.

5. Fostering a unique ‘sense of place’ by using design themes that reflect the natural and cultural heritage of Bowser Village Centre.

6. Achieving social equity through provision of affordable housing, seniors housing and designing buildings and the built environment to be accessible to all ages and abilities.

The design of future development will have a significant impact on how attractive and welcoming Bowser Village Centre is to residents and visitors.

Ensuring that future residential, commercial, institutional, tourism and light industrial uses are developed to create a sustainable and attractive built environment that retains the rural charm of Bowser Village Centre is essential.
1.3 Objectives

The objectives of the Bowser Village Centre Development Permit area are:

1. To achieve a more compact rural village centre that supports a diverse, healthy population by allowing a mix of land uses that encourage a range of housing affordability and types, services, employment and recreation arranged to maximize walking and cycling opportunities and efficient servicing.

2. To promote a cohesive pedestrian oriented environment with strong connections within Bowser Village Centre and between adjacent neighbourhoods.

3. To enhance and integrate the relationship between the built and natural environment through building design, landscaping, and ‘green’ streetscapes.

4. To ensure that ground and surface water resources are enhanced and protected from the negative impacts of development.

5. To promote energy efficiency and water conservation through use of innovative building methods, design and site planning that support reducing GHG emissions and conserving resources.

6. To create a ‘sense of place’ and community ownership through effective design and the creation of safe, inviting and well connected public spaces.

7. To clearly define attractive entrances to the community.
1.4 Application

The Bowser Village Centre Development Permit Area includes all lands within the Bowser Village Centre Boundary as shown on Map 4.1.2.

Unless exemption provisions apply, owners of land within a development permit area are required to obtain a development permit prior to:

1. Alteration of land (placement of fill, disturbance of soils, including grubbing, scraping, and removal of top soils, creation of non-structural impervious or semi-pervious surfaces).
2. Construction of, addition to, or alteration of a building or structure on the land.
3. Subdivision as defined in the Land Title Act or the Strata Property Act.

Where land is included within more than one development permit area designation in both the Electoral Area ‘H’ Official Community Plan (OCP) and the Bowser Village Centre Plan, one development permit is required; however, the application will be subject to meeting the guidelines of all applicable development permit areas.

1.5 Exemptions

A development permit will not be required for the following:

1. Construction, renovation or addition to a single dwelling unit, or accessory residential buildings and structures.
2. Internal building renovations that do not affect the appearance of the building exterior.
3. Repair or replacement of roofing.
4. Additions of canopies or other decorative building features.
5. Interpretive signage providing general or tourist information that is located on publicly owned property or road right-of-way.
6. Emergency procedures to prevent, control, or reduce erosion, or other immediate threats to life and property including:
• Emergency flood or protection works
• Clearing of an obstruction from bridge, culvert, or drainage flow; repairs to bridges and safety fences
• Removal or trimming of vegetation and trees for wildfire protection as directed by a registered professional forester

7. Notwithstanding Policy 6 above, emergency procedures to prevent, control, or reduce erosion, or other immediate threats to life and property must be reported to the RDN and applicable provincial ministry immediately to secure an exemption under this section.

8. The cutting down of hazardous trees in accordance with the recommendations contained in a report prepared by an Arborist or other qualified professional. Trees must pose an immediate threat to the safety of persons or existing buildings or structures.

1.6 Variances to Bylaw No. 500

The requirements of this Plan may not be consistent with RDN Land Use and Subdivision Bylaw No. 500, 1987. Where there is inconsistency between Bylaw No. 500 and the Development Permit Areas Guidelines of this Plan, a variance/s to Bylaw No. 500 may be required to meet the intent of this Plan.

1.7 Permit Security

1. The RDN may require applicants for any development permits within the Bowser Village Centre Development Permit Area to provide security in the form of an unconditional, irrevocable and automatically renewing letter of credit in cases where:

• The RDN considers that damage to the natural environment (including ground and surface water) could result as a consequence of a contravention of a condition in a development permit issued.
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- The permit holder is required to retain, restore or replace vegetation.
- The permit holder is required to provide landscaping.
- The permit holder is required to provide onsite rainwater management.

2. The amount of the security shall be sufficient to cover the cost of any work that might be undertaken by the RDN to:
   - Correct any damage to the natural environment (including ground and surface water contamination) that could be reasonably expected to result from the contravention of the permit.
   - Correct and repair damage caused by inadequate rainwater management.
   - Replace native vegetation that has been retained, restored or replaced and does not survive.
   - Correct any landscaping design and/materials that have not been put in place as per development permit requirements including replacing plants that have not survived.
2.0 Design Concepts and Themes

2.1 Design Concepts

The following Design Concepts were identified at the Bowser Charette on June 8th and 9th 2009:

1. Increase visual appeal, starting from the points of entry into the Bowser Village; these points of entry are the intersection of Crosley Road and Highway 19A and the intersection of McColl Road and Highway 19A.

2. Emphasize attractive buildings especially those at landmark sites.

3. Create a pedestrian friendly environment through design, height and siting of buildings (3 storey heights, buildings close to street, accessible sidewalks, parking to the rear of buildings out of site of roads and highway).

4. Use natural systems as ‘green infrastructure’ with a network of streets and parks performing natural drainage functions and providing a pedestrian friendly environment.

5. Increase greenways and separate pedestrians from vehicles by green borders, boulevards and swales; slow down traffic, and improve safety.

6. Group similar commercial activities together so that residents can park once and then walk to several destinations.

7. Encourage live-work buildings, where owners might live above their businesses.

8. Increase density of residences and of commercial space in order to gain green-space around the buildings.
2.2 Design Themes

The RDN will encourage the design of new developments, public open spaces and streetscapes to reflect the natural and cultural heritage of Bowser by incorporating one of the following themes:

- Lighthouse Country
- First Nations History
- Post 1900 Historical Themes (logging, fishing and shellfish aquaculture)
- Connection to water (aquifers, surface water, Thames Creek and ocean)
- West Coast style design (BC wood is good)

These design concepts along with subsequent community feedback have been incorporated into the following design guidelines for Bowser Village Centre.

Document Images

Note that all images within this document are for illustrative purposes only and are not intended to be interpreted as what buildings/development must look like. As this document is revised the addition of new images should be considered.
3.0 General Guidelines

3.1 Design at a Human Scale

Intent

To ensure that the design of buildings and other features of the built environment in Bowser Village Centre fits well with community preferences in terms of the scale, proportions (size, height, form, bulk/mass) and materials.

Guidelines

3.1.1 Building Height, Massing and Form

a. Limit building height to a maximum of 3 storeys unless otherwise specified. Where building heights are 3 storeys, ‘step back’ third floor to reduce the perceived scale of the building (and give the appearance of a 2 storey building form).

b. Developments should appear to consist of many small buildings rather than single large buildings. This can be achieved by varying architectural treatment of building facades at least every 15 metres in order to create the appearance of a series of small buildings and produce an aesthetically appealing streetscape. Consider using building articulation, varied materials, roof lines, window treatments, and landscaping to achieve this.
c. Buildings 3 storeys in height and less should have a maximum length of 40 metres.

d. On sloping sites use ‘stepping’ to minimize impacts and help preserve views on neighbouring development.

e. Continuous blank wall surfaces (longer than 5 meters) are strongly discouraged.
f. Development shall not be separated or ‘gated’ with walled or fenced enclaves.

g. Building design should optimize sunlight and minimize shadowing on the public realm.

3.1.2 Building Style & Materials

a. High quality exterior finishes suited to a west coast climate should be used to ensure the integrity of the building envelope and to present an attractive appearance.

b. Natural, local non-combustible, high quality building materials should be used to the greatest extent possible, with an emphasis on British Columbia wood products.
3.2 Lighting and Signage

Intent

To ensure that exterior lighting and signage enhances the nighttime ambience of the Village Centre; and, enhances pedestrian safety while conserving energy and preserving dark skies.

Guidelines

3.2.1 Lighting

a. Exterior building and site lighting shall be designed to:
   • be in scale with the pedestrian environment with an emphasis on public safety
   • prevent glare on neighbouring properties, adjacent roads or the sky
   • conserve energy

b. All new, replacement and upgraded exterior lighting in existing and proposed developments shall use Full-Cut Off/Flat Lens (FCO/FL) lighting fixtures on building exteriors and to light roads, parking, loading and pedestrian areas.

c. Use of solar powered lighting is encouraged.
3.2.2 Signage

a. Signage should be:
   - grouped wherever possible
   - at a scale and size that is oriented towards pedestrians
   - designed to be effective with minimal lighting
   - architecturally integrated with the overall design of the buildings and landscaping

b. Multi-tenant buildings shall provide combined tenant signage.

c. The following types of signage shall be encouraged:
   - projecting two dimensional signs suspended from canopies, awnings or overhangs
   - externally, front lit signs especially with LED lighting
   - fascia signs integrated into the design of the building
   - letter signs mounted on storefronts
   - carved wooden signs

d. The following types of signage shall be strongly discouraged:
   - awnings as signs or large signage on awnings (letter heights over 30 cm/12 inches)
   - internally lit, plastic face, aluminum box style signage
   - animated/video signage
   - pylon (stand alone) signs
   - roof top signs
3.3 Weather protection

Intent

To improve the pedestrian experience in commercial areas by providing shelter from different weather elements.

Guidelines

a. Aim to provide continuous weather protection for pedestrian comfort and to promote browsing along streetscapes in commercial areas.

b. Use covered walkways, awnings, canopies, overhangs, pergolas and shade trees.

c. Integrate covered walkways, awnings, canopies, overhangs and pergolas with the overall design of buildings.

3.4 View Corridors and Sightlines

Intent

To preserve and enhance public views of landmarks, buildings, open spaces, natural features and the ocean.

Guidelines

a. Protect and enhance public view corridors through careful building siting, form and heights.

Refer to the building height map in Section 4.1.4.
3.5 Inviting, accessible Public Spaces

Intent

To support opportunities for positive social interactions, leisure and recreation through well designed, accessible public space that caters to all life stages and abilities.

To guide the development of public spaces in cases where they are provided as part of a community amenity for larger developments.

Guidelines

a. Encourage the provision of accessible, well located outdoor patios, plazas, ‘village greens’ or other outdoor amenity areas suitable for informal gathering.

b. Fountains, sculptures and other examples of public art should be considered for public plazas and landscaped courtyards.

c. Encourage the provision of highly visible play areas for children with adequate shade and seating for adults. Consider use of natural play areas with low maintenance features.

d. The retention of natural features (like trees, rock or other landscape features) in open spaces shall be encouraged.

e. Street furniture such as benches, lamps and refuse containers shall be incorporated in the landscape design. These shall be required to be consistent, similar, or identical in character to the architectural character of the development and identified by type and source in the application.
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f. Increase and enhance public open space and pedestrian connections between residential areas, the waterfront and commercial areas at Magnolia Court and Georgia Park.

g. Ensure that pedestrian connections are linked to existing and future park and recreation opportunities.

3.6 Universal Access

Intent

To ensure to the greatest extent possible that buildings, sites and open spaces are accessible to a diversity of users of all ages and abilities. Accessibility to different buildings, spaces and amenities is a measure of social equity. In Bowser Village Centre there is a growing need to accommodate seniors and those with different abilities and needs including young children and youth.

Guidelines

a. Use ‘Universal Design’ principles to design buildings, open space, trails, and parking lots to allow access from a range of users.

b. Design residential buildings to allow ‘ageing in place’.

c. To the greatest extent possible, provide adequate access and facilities for those using bikes, wheelchairs, scooters and strollers.

d. Design transitions between parking areas, retail shops and services, sidewalks, pathways and roads to facilitate easy access by those with different abilities.
3.7 Safety Considerations

Intent

To ensure that the planning, design and maintenance of buildings, public spaces, pathways, roads and landscaping are used to promote healthy community use, increase sense of safety and reduce opportunities for crime.

Guidelines

a. Use building, site and landscaping design techniques to improve public safety. Refer to Crime Prevention Through Environmental Design (CPTED) or similar techniques including:

- Promoting ‘eyes on the street’, natural surveillance through a mix of uses, and housing types oriented towards streets.

- Use of landscaping, gardens, parks, plazas, public art and street furniture to improve ‘ownership’ of Bowser Village Centre.

- Creating a clear definition between public and private space, particularly for multi-residential and mixed-use developments.

- Creating a pedestrian friendly village environment.

- Maintaining a high quality environment through upkeep of landscaping, buildings and open spaces.

- Ensuring that landscaping and building design maximizes opportunities for natural surveillance with clear sightlines between pedestrian paths, parking lots, open spaces and buildings.
3.8 Green, Healthy Buildings (Conserving resources/Energy Efficiency/Reducing Consumption/Healthy Buildings)

Intent

To use innovative building design to maximize energy efficiency, reduce waste and pollution and improve the health and quality of life of occupants.

Guidelines

a. The use of energy efficient and healthy building materials, and techniques shall be encouraged. Consider use of LEED or similar standards to encourage green building and site planning.

b. Site buildings and internal spaces to make best use of solar gain and cooling.

c. Re-use of existing well maintained buildings and facilities that fit with the Bowser Village Centre themes shall be encouraged.

d. Design new buildings to adapt to a range of uses to extend the life span and usefulness of buildings.

e. The development of shared-use, multi-functional facilities to reduce materials, energy and maintenance costs shall be encouraged.

f. Design sites and buildings to use best practice rain water management and water conservation techniques.

g. Encourage the use of green rooftops, balconies, patios, courtyards and gardens to moderate effects of building temperature (heat island effect) and to provide residents with attractive opportunities to grow food.

h. Buildings and landscaping will use best practice interface fire mitigation techniques such as FireSmart.
3.9 ‘Green’ and livable streets and public spaces

**Intent**
To reorient streets for people first and vehicles second. To view the streetscape as a public space that also performs vital ecological functions and supports positive community interactions.

**Guidelines**

- a. Orient residential and commercial buildings to face the street.
- b. Site buildings closer to sidewalks to create a more intimate pedestrian environment.
- c. Building setbacks from lot lines should:
  - be designed to create an intimate, pedestrian friendly streetscape
  - be between 0.0 m and 3.0 m (RDN in collaboration with MOTI will determine minimum building setbacks from lot lines)
  - consider relationship and transition to adjacent buildings
  - corner sites are encouraged to feature landmark design or alternatively to provide a semi-public or public open space
  - include “corner cuts” or similar treatment to expand sidewalks adjacent to intersections

- a. Setbacks from sidewalks may be considered in order to provide:
  - transition to adjacent buildings
  - pedestrian friendly features such as patios, courtyards and plazas
b. Side streets in residential areas should consider use of ‘woonerf’ style streets that integrate needs of multiple users such as walking, cycling, playing, gardening and socializing.

c. Pedestrian sidewalks or defined pathways connecting building entrances to and through parking areas and sidewalks or road right of ways of the adjacent streets shall be provided.

d. All internal pedestrian walkways shall be distinguished from driving surfaces through the use of a clearly delineated pathway or durable, low maintenance surface materials such as pavers, bricks, or concrete to enhance pedestrian safety and comfort, as well as the attractiveness of the walkways.
3.10 Parking, loading and storage areas

a. Off street parking, shall be located to the rear of the front face of buildings or underground of buildings to support the pedestrian orientation of streets.

b. All loading and outdoor refuse and storage areas shall be complementary to the development, screened with landscaping and wherever possible be located to the rear of buildings in unobtrusive areas.

c. Use of high quality porous/pervious surfaces shall be strongly encouraged for parking and pedestrian pathways.

d. Clearly defined, safe pedestrian access shall be provided through parking areas and integrated with building entrances, walkways, sidewalks, trails and adjacent streets.

Parking to rear of buildings facing main streets
(site plan source Delinea Designs)
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e. Parking areas should include landscaped areas with street trees to provide shade and visual breaks between clusters of approximately seven stalls.

f. Where side road access is not feasible, shared driveways to access business and residential properties from Highway No. 19A shall be encouraged for new mixed use development.

g. Vehicular and truck movement patterns must be illustrated on the site plan submitted by the applicant to ensure adequate circulation. Provision should be made for emergency vehicle, moving vans, and service vehicle access. A professional engineer may be required to ensure that adequate lane widths and turning radiiuses are provided for all forms of vehicles intended to use the property.

h. Bicycle and scooter parking facilities should be provided at grade near primary building entrances.
3.11 Landscaping and Screening:

a. Applicants may be required to submit a landscaping plan, prepared by a Landscape Architect or equivalent professional, which meets the British Columbia Landscape Standard and satisfies the following objectives:

- to retain mature trees and vegetation wherever possible
- to use a variety of drought tolerant deciduous and native plant species that are best suited to the site specific growing conditions
- to minimize water consumption through means such as micro-irrigation and xeriscaping
- to emphasize shade tree species to moderate summer climate
- to reduce the amount of impervious surfaces on the site
- to provide visual separation from and compatibility with surrounding single residential uses
- to improve the aesthetic appeal of the development
- to assist in the safe movement of pedestrians throughout the site
- to compliment the development and surrounding uses
- to screen parking areas from adjacent streets and differentiate between public and private space
- to preserve the rural experience and to minimize the visual distraction of development on Highways No. 19A
- to establish or enhance habitat values on the development site where appropriate
- the landscaping plan must be drawn to scale and show the type, size and location of proposed landscaping and shall be submitted with the development permit application

b. Notwithstanding Policy 3.11 (a) above, the landscaped buffer adjacent to any watercourse, coastal area, or environmentally sensitive feature shall be determined by a Qualified Environmental Professional (QEP) and shall work to establish or enhance habitat values on the development site.

c. Buildings and structures should be sited in a manner that minimizes the disturbance of existing native vegetation.

d. Vegetation species used in replanting, restoration and enhancement shall:

- be selected to suit the soil, light and groundwater conditions
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of the site
• should be native to the area
• be selected for erosion control and/or fish and wildlife habitat values as needed

e. All landscaping shall require the following minimum depth of topsoil or amended organic soils on all landscaped areas of a property:
• shrubs - 45 cm
• groundcover and grass - 30 cm
• trees - 30 cm around and below the root ball

f. Where irrigation is required to maintain proposed landscaping, it shall be designed and installed by an Irrigation Industry Association of British Columbia certified irrigation designer.

g. The Regional District of Nanaimo shall require the applicant to submit a landscaping and security deposit equal to the total estimated costs of all materials and labour as determined by a Landscape Architect or other similarly qualified person to the satisfaction of the RDN to be released upon final inspection by a Landscape Architect or other similarly qualified person to the satisfaction of the Regional District of Nanaimo.

h. Where a commercial property abuts residential zoned property, landscaped buffer area should be provided between the commercial property and the residential property(s).

i. Garbage and recycling containers shall be screened with landscaping and fencing and gated to a minimum height of 2.0 metres. Similarly, utilities, service kiosks, meters, elevator housing, exhaust elements, satellite dishes, etc. shall be screened with landscaping and fencing.

j. Chain link fencing shall be used only when screened by landscaping. Decorative fences are encouraged matching the materials used for the principle building.

k. The installation of boulevards, street trees, pedestrian pathways, or sidewalks within the public road right of way may be supported subject to MOTI approval. Boulevards must be landscaped, irrigated, and maintained by the subject development.
3.12 Multi-Residential & Intensive Residential Development

To ensure that multi-residential and intensive residential development is designed to complement adjacent land uses, support a pedestrian streetscape and contribute to an attractive built environment.

Application

In addition to the general guidelines in this Development Permit Area, the following guidelines apply specifically to multi-residential and intensive residential development in the following Land Use Designations:

- Residential Medium Density
- Residential High Density
- Commercial Mixed-Use
- Commercial Tourist

Guidelines

a. Residential units should be clustered to make the most efficient use of land and preserve as much land as possible for open space.

b. Residential land uses should be arranged to achieve gradual transition and minimize conflicts with adjacent housing types and surrounding neighbourhoods.

c. Multi-residential dwelling unit buildings should be designed to utilize sunlight for the health and comfort of residents and for energy conservation purposes.

d. Dwelling units should be designed to allow residents privacy as well as a sense of community such that each unit has at least one private outdoor space with access to or views of adjacent semi-public spaces.

e. Use landscaping and design to clearly distinguish and provide transitions between public and private spaces especially where residential uses are mixed with commercial uses.
f. Encourage private outdoor living space.

g. Encourage provision of rooftop gardens, communal garden spaces and edible landscaping for the benefit of residents.

h. To promote intergenerational mixing, encourage the provision of play areas for children with comfortable seating for adults as part of communal areas.

i. Children’s play areas should be located to facilitate ‘natural surveillance’ with high visibility from residential units.
3.13 Commercial Mixed-Use Development

Intent

To provide a vibrant human scaled mixed-use commercial area. To ensure that residential, institutional, commercial and service commercial (light industrial) land uses are sensitively integrated with each other to support a pedestrian streetscape and contribute to an attractive built environment.

Application

In addition to the general guidelines in this Development Permit area, the following guidelines apply specifically to commercial mixed use, tourist and institutional development in the following Land Use Designations:

- Commercial Mixed-Use
- Commercial Tourist
- Civic and Cultural

Guidelines

a. Mixed-use buildings and developments shall be oriented to the street with minimum setbacks.

b. Sufficient parking for residential, institutional, commercial and commercial service (light industrial) uses shall be provided.

c. Reductions in parking requirements may be supported in cases where shared parking for different uses is feasible.

d. Physically separate parking and entrances with secure access for commercial and residential uses shall be provided.
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e. View corridors should be enhanced and opportunities for views from residential units and public spaces maximized.

f. Commercial or institutional development should be ground oriented and in scale with the surrounding uses.

g. The maximum floor area for individual retail and commercial units should be 300 sq m (3,200 sq ft) with the exception of grocery stores where a maximum 1,500 sq m (16,145 sq ft) of retail space will be allowed.

h. Building size for institutional and commercial service/light industrial uses shall be a maximum 1,000 sq m (10,764 sq ft) in size and designed to give the appearance of a series of smaller buildings.

i. Guidelines for multi-residential and intensive residential development shall apply to all residential development within Commercial Mixed Use, Civic and Cultural, and Commercial Tourist land use designations.

j. Guidelines for service commercial development shall apply to all commercial service/light industrial development within the Commercial Mixed Use land use designation.
3.14 Commercial Service/Light Industrial Development

Intent
To ensure that commercial service/light industrial, and more intensive retail and commercial uses are developed in a way that is complementary to adjacent residential and commercial land uses.

Application
In addition to the general guidelines in this Development Permit Area, the following guidelines apply specifically to commercial service/light industrial and more intensive retail, commercial uses in the following Land Use Designation:

- Commercial Mixed-Use

Guidelines

a. Commercial service buildings and developments shall be oriented to the street with minimum setbacks.

b. Retail and office uses in commercial service development should be ground oriented, located adjacent to the street with non-retail functions located to the rear of the property.

c. Residential ‘live-work’ units shall be located above street level over top of commercial service uses.

d. Residential ‘live-work’ units shall provide private outdoor space which may include patios and balconies.

e. Where possible residential ‘live-work’ units should be oriented to overlook public streets.

f. Sufficient screening and buffers shall be provided to maintain an attractive pedestrian environment.
4.0 Environmentally Sensitive Development

Intent
To encourage development that ‘designs with nature’ and promotes the preservation, protection and retention of sensitive natural areas and features for both protection of the environment and safety of the community.

Guidelines
The use and retention of natural features (topography, rocks, soils, local species, habitats, riparian areas) should be considered design opportunities rather than constraints on new development sites.

a. All development proposals should be designed in substantial compliance with the guidelines contained in the document: “Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia” as amended from time to time published in March 2006 by the Ministry of Environment.

b. New developments and buildings are to be planned and designed using the best practice interface fire mitigation techniques including:
   - Locate new buildings with consideration of the proximity of interface fire hazard areas.
   - Where appropriate, integrate fire buffers and refuge areas with parks, trails and rainwater management features such as rain gardens and detention ponds.
   - Use FireSmart guidelines to select fire resistant building and landscaping materials, and maintaining fuel free zones around buildings in high risk areas.

c. A Section 219 covenant may be required to be prepared at the applicant’s expense and to the satisfaction of the RDN, specifying areas that must remain free from development and/or protecting an environmentally sensitive feature.
5.0 Rainwater and Aquifer Protection

Intent

To protect and sustain access to reliable, safe, untreated drinking water from groundwater sources. The quality and quantity of drinking water is of paramount importance to the community. Protecting this precious resource from the negative impacts of human activity is a high priority.

Guidelines

a. Rainwater should be managed on site and there shall be no net increase in peak rain water run-off to adjoining lands. A rainwater management plan prepared by a professional engineer may be required.

b. The use of rain gardens, vegetated swales, a reduction in impervious surfaces, and other technologies for managing rain water on site should be included in all development proposals.

c. Development or subdivision of land should be designed to:
   • replicate the function of a naturally vegetated watershed;
   • maintain the hydraulic regime of surface and groundwater and pre-development flow rates;
   • not interfere with groundwater recharge;
   • not introduce or remove materials where it would cause erosion of or the filling in of natural watercourses and/or wetlands.

d. Written confirmation of sufficient quantity and quality of potable water and water for fire protection will be required from the local water supplier, fire department or qualified professional for new proposals for development within Bowser Village Centre.
e. The RDN may require the applicant to supply a hydrogeological report from a registered professional which must include the following:

i. An assessment of the characteristics of the aquifer that includes:
   • geology of the site
   • water quality and quantity information
   • groundwater elevation
   • flow direction and gradient
   • surface water location
   • recharge potential of the site

ii. Analysis of possible effects on groundwater of the proposed project including development of the site and intended land uses with particular attention paid to:
   • anticipated demand based on the development potential of the subject property(s) based on the current zoning, including potential impacts on adjacent properties
   • potential use, handling, storage or manufacturing of potential contaminants
   • demand for water for drinking, landscaping and fire flows

iii. A statement backed by a professional assessment that the proposed development will not have a negative impact on the aquifer

iv. Recommendations on what measures are required to ensure the aquifer is protected
f. The RDN may require an applicant to submit a rain water management plan prepared by a professional engineer which must ensure that the discharge of any treated effluent, and rain water shall not negatively impact water quality. Treated effluent and diverted rain water collection and discharge systems on commercial, industrial, multi-residential, and other developments where there is potential for silt and petroleum-based contaminants to enter a watercourse or infiltrate into the ground will require the provision for grease, oil, and sedimentation removal facilities and the on-going maintenance of these facilities.