Area Structure Plan GREATER BRAGG CREEK

APPROVED FEBRUARY 27, 2007 BYLAW C-6260-2006





BYLAW C-7602-2016

A Bylaw of Rocky View County, pursuant to Division 12 of Part 17 of the Municipal Government Act, to amend Bylaw C-6260-2006, known as the "Greater Bragg Creek Area Structure Plan".

The Council of Rocky View County enacts as follows:

PART 1 - TITLE

This bylaw shall be known as Bylaw C-7602-2016.

PART 2 - DEFINITIONS

In this bylaw, the definitions and terms shall have the meanings given to them in Land Use Bylaw C-4841-97 and the Municipal Government Act.

PART 3 – EFFECT OF BYLAW

THAT Bylaw C-6260-2006, known as the "Greater Bragg Creek Area Structure Plan", be amended in accordance with the amendments contained in Schedule 'A', attached to and forming part of the Bylaw;

PART 4 - TRANSITIONAL

Bylaw C-7602-2016 comes into force when it receives third reading, and is signed by the Reeve/Deputy Reeve and the Municipal Clerk, as per Section 189 of the *Municipal Government Act*.

Division: 01 File: 1011-531

PUBLIC HEARING WAS HELD IN COUNCIL this

READ A FIRST TIME IN COUNCIL this

READ A SECOND TIME IN COUNCIL this

UNANIMOUS PERMISSION FOR THIRD READING

READ A THIRD TIME IN COUNCIL this

8 th day of	November	, 2016
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8 th day of	November	, 2016
 -10	No	20

Reeve CAO or Designate

Date Bylaw Signed



ROCKY VIEW COUNTY Cultivating Communities

BYLAW C-7603-2016

A Bylaw of Rocky View County pursuant to Division 12 of Part 17 of the Municipal Government Act to amend Bylaw C-6260-2006, known as the "Greater Bragg Creek Area Structure Plan".

The Council of Rocky View County enacts as follows:

PART 1 - TITLE

This bylaw shall be known as Bylaw C-7603-2016

PART 2 – DEFINITIONS

In this bylaw, the definitions and terms shall have the meanings given to them in Land Use Bylaw C-4841-97, and the Municipal Government Act.

PART 3 - EFFECT OF BYLAW

THAT Bylaw C-6260-2006, known as the "Greater Bragg Creek Area Structure Plan", be amended in accordance with the changes contained in Schedule 'A', attached to and forming part of this Bylaw.

PART 4 – TRANSITIONAL

Bylaw C-7603-2016 comes into force when it receives third reading, and is signed by the Reeve/Deputy Reeve and the Municipal Clerk, as per Section 189 of the Municipal Government Act.

> Division: 01 File: 1011-532

PUBLIC HEARING WAS HELD IN COUNCIL this

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UNANIMOUS PERMISSION FOR THIRD READING

- 8th day of November , 2016 8th day of November , 2016
- 8th day of November , 2016
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READ A THIRD TIME IN COUNCIL this

November , 2016 Reeve CAO or Designate

day of

ROCKY VIEW COUNTY GREATER BRAGG CREEK AREA STRUCTURE PLAN

BYLAW C-6260-2006

OFFICE CONSOLIDATION

This document has been consolidated for convenience only. A copy of the original bylaw and all amending bylaws can be obtained from Rocky View County. This office consolidation comprises of the following bylaws.

Bylaw	Amendment Type	Date of Approval
C-6260-2006	Original Bylaw	February 27, 2007
C-6504-2007	Add new policy 7.4.4 (f)	September 25, 2007
	Renumber section 7.4.4	
C-7319-2013	Addition of Moose Mountain Trails Conceptual Scheme	June 24, 2014
C-7473-2014	Addition of Wintergreen Forest Estates Conceptual Scheme	March 24, 2015
C-7602-2016	Amendments to Hamlet Residential Related Policies, 7.2.1, 7.2.2, and 7.2.3.	November 8, 2016
	Amendments to Hamlet Commercial Related Policies 7.3.1, 7.3.2, 7.3.3, 7.3.4.	
	Amendments to Hamlet Servicing Related Policies 6.1.1.	
	Figure replacements throughout.	
	Reformatting, and minor spelling, grammar, and punctuation amendments throughout	
C-7603-2016	Replacement of Appendix A, "Development Guidelines for the Hamlet of Bragg Creek". With "Hamlet of Bragg Creek Design Standards".	November 8, 2016
	Replacement of "Design Guidelines" with "Design Standards" throughout ASP	

Table of Contents

PLA	PLAN VISION	
SEC	TION A – BACKGROUND	
1.0	INTRODUCTION	
2.0		
2.1	THE MUNICIPAL GOVERNMENT ACT	
2.2	THE MUNICIPAL DEVELOPMENT PLAN	
2.3	INTERJURISDICTIONAL CONTEXT	
3.0	THE NATURE OF THE PLAN AREA	
3.1	PHYSICAL CHARACTERISTICS	
3.2	HUMAN CHARACTERISTICS	
3.3		18
3.4	ANTICIPATED POPULATION GROWTH	
4.0	PLAN PHILOSOPHY AND GOALS	
4.1	PLAN PHILOSOPHY	24
4.2	PLAN GOALS	25
4.3	PLAN PROCESS	26
4.4	POLICY AREAS	
SEC	TION B – POLICY FRAMEWORK	29
5.0	RESPECTING THE NATURAL ENVIRONMENT	
5.1		
5.2	OPEN SPACE	
5.3	AGRICULTURE	
5.4	PRESERVATION OF LOCAL HISTORICAL CONTEXT	
6.0	INFRASTRUCTURE TO SUPPORT PHYSICAL DEVELOPMENT	
6.1	UTILITIES	
6.2	TRANSPORTATION	
6.3	TRAILS	
7.0	FUTURE PHYSICAL FORM	
7.1	CONCEPTUAL SCHEMES	

7.2	FUTURE PHYSICAL FORM IN THE HAMLET	
7.3	HAMLET COMMERCIAL DEVELOPMENT	
7.4	FUTURE PHYSICAL FORM IN THE GREATER BRAGG CREEK AREA	
7.5	COMMERCIAL DEVELOPMENT OUTSIDE OF THE HAMLET	
8.0	FUTURE COMMUNITY DEVELOPMENT	
8.1		
8.2	EMERGENCY AND PROTECTIVE SERVICES	
SECT	ION C – IMPLEMENTATION	
SECT 9.0	INTER-JURISDICTIONAL COOPERATION	
9.0		
9.0 10.0	INTER-JURISDICTIONAL COOPERATION	
9.0 10.0 APPEN	INTER-JURISDICTIONAL COOPERATION	
9.0 10.0 APPEN APPEN	INTER-JURISDICTIONAL COOPERATION PLAN IMPLEMENTATION AND REVIEW NDIX A: Hamlet of Bragg Creek Design Standards	

FIGURES

Figure 1: Plan Area	
Figure 2: Regional Context	
Figure 3: Existing Hamlet Boundary	
Figure 4: Existing Land Use Bylaw Districts	
Figure 5: Key Provincial and Municipal Roadways Servicing Area	
Figure 6: Policy Areas	28
Figure 7: Schedule 2; Bragg Creek Flood Risk Map	33
Figure 8: Conceptual Trails Network	
Figure 9: Conceptual Trails Network Hamlet Detail	
Figure 10: Hamlet Core	
Figure 11: Lands for Hamlet Residential Expansion	63
Figure 12: Gross Developable Area Calculation Example	
Figure 13: Future Residential Development	
Figure 14: Riparian Buffer for Raviness	
Figure 15: Diagram of bankfull width	

TABLES

Table 1: Number of Additional Housing Units by Policy Area	23
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PLAN VISION

The year is 2030. The Greater Bragg Creek area continues to be a special place within Rocky View County where residents have a strong sense of place that emanates from both the quiet country residences that harmonize with undisturbed landscapes and the small town character of the hamlet.

The "lifestyle equity" and "latent utility" afforded to the local community by the natural environment has been preserved over time through implementation of an integrated land use planning strategy that evaluates opportunities for subdivision and development by first considering the capability and capacity of the natural environment to accommodate additional development. The community has benefited from implementation of policies in the Greater Bragg Creek Area Structure Plan achieving a balance between the natural environment and the impacts of human settlement



SECTION A – BACKGROUND

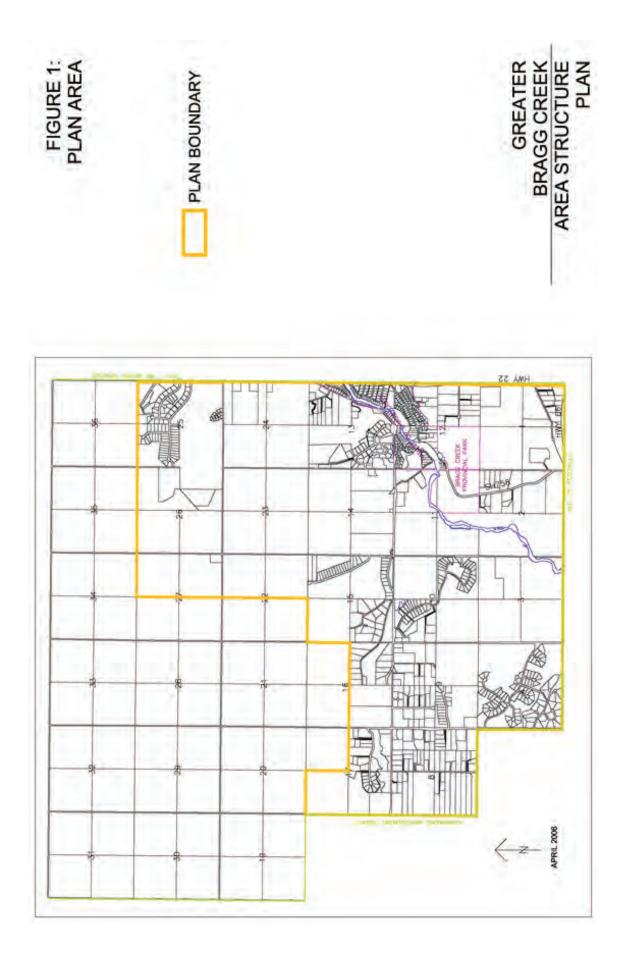
1.0 INTRODUCTION

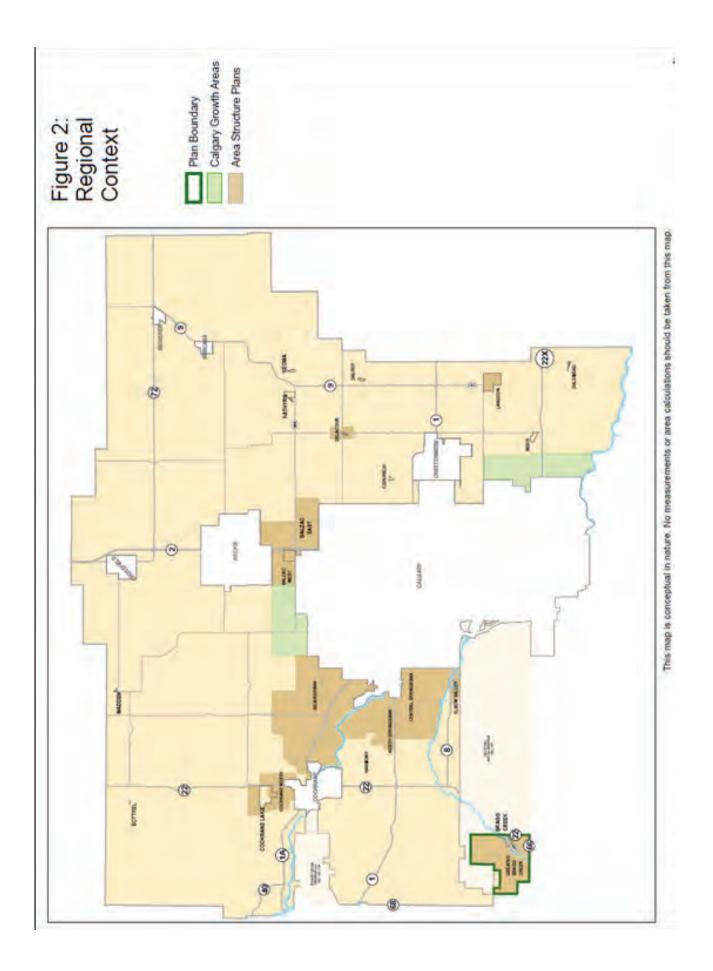
The lands that are subject to the provisions and policies of this Area Structure Plan (Plan area) are identified in Figure 1. The Plan area is located within Rocky View County approximately 30 km southwest of the city of Calgary. It is an enclave: bounded on the west by Kananaskis Country, on the south by the MD of Foothills, on the east by the Tsuut'ina Reserve, and on the north by a significant block of provincially-owned lands that are leased to private individuals for grazing purposes. The hamlet of Bragg Creek and Bragg Creek Provincial Park lie within the Plan area. This regional context is illustrated in Figure 2. It lies at the foot of the eastern slopes of the Rocky Mountains, within the upper reaches of the Elbow River. The approximate 2,400 people who live within the Plan area have developed a strong sense of community and a strong affinity for the natural environment and open spaces that characterize the Plan area.

For many, the Greater Bragg Creek area is home – a place to be protected and enshrined. For others, it represents a potential for further non-residential development. These two apparently opposing desires led the Council of Rocky View County to undertake preparation of an Area Structure Plan in October 2003, with the goal of defining a framework within which future development can occur in a manner that balances and respects the interests of all area stakeholders.



¹2001 Census Semi-custom Area Profile of Greater Bragg Creek Area, Hamlet of Bragg Creek and Greater Bragg Creek excluding Hamlet, Statistics Canada, 2001, produced in the Edmonton Regional Office, May, 2004.





2.0 LEGISLATIVE FRAMEWORK

2.1 THE MUNICIPAL GOVERNMENT ACT

The Municipal Government Act (MGA), provides the municipal mandate for preparation and adoption of an area structure plan within a County.

- "633 (1) For purposes of providing a framework for subsequent subdivision and development of an area of land, a council may by bylaw adopt an area structure plan.
 - (2) An Area Structure Plan:
 - (a) must describe:
 - i) the sequence of development proposed for the area;
 - ii) the land uses proposed for the area, either generally or with respect to specific parts of the area;
 - iii) the density of population proposed for the area either generally or with respect to specific parts of the area; and
 - iv) the general location of major transportation routes and public utilities; and
 - (b) may contain any other matters the Council considers necessary."

In addition, the MGA requires that all statutory plans adopted by a County must be consistent with each other.

2.2 THE MUNICIPAL DEVELOPMENT PLAN

Rocky View County's Municipal Development Plan (MDP) encourages the preparation of area structure plans to provide a framework with which to guide future growth and change in areas "where residential development is the emerging dominant land use and where such areas are experiencing ongoing growth pressures and therefore, require a more localized and integrated approach to land use planning and development." The County may also require a conceptual scheme to be prepared for areas of land, to provide a more detailed and comprehensive framework for future redesignation, subdivision and development, to encourage collaboration between landowners, and to achieve an economical and orderly settlement pattern.

2.3 INTERJURISDICTIONAL CONTEXT

The Greater Bragg Creek area is uniquely situated between a major population centre and a worldclass provincial recreation amenity. Additionally, the community is sharply defined by its common boundaries with adjacent jurisdictions. The portion of the MD of Foothills that is located immediately to the south of the Plan area is populated with low-density country residential development of a scale and nature similar to that found within the Plan area. Kananaskis Improvement District, immediately to the west and south, is under Provincial jurisdiction and contains a mix of land uses including outdoor recreational pursuits and natural resource extraction activities. A significant block of provincially-owned

²Municipal Government Act, Statutes of Alberta, Part 17, Division 4, Section 633

³Ibid, Section 638

⁴Municipal Development Plan, as amended, Schedule A to Bylaw C-4840-97, Rocky View County, Department of Planning and Development Services, Adopted July 6, 1998, Section 5.3.

⁵Ibid Section 5.4

lands to the north sustains extensive agriculture. These lands are currently leased to individuals for grazing purposes. While these lands are currently owned by the Crown and can be accessed by the public, recent changes to provincial policy have made it possible for them to be sold to individuals under fee simple titles. Finally, the Tsuut'ina Nation Reserve #145 lies immediately to the east and, while these lands are currently First Nations reserve lands used for traditional purposes, they are able to be surrendered and subsequently developed for a broad range of uses, in a manner similar to the development that has occurred at Redwood Meadows, east of the Plan area.

In accordance with the provisions of Section 636 1(e) of the Municipal Government Act, Rocky View County has notified each of these jurisdictions of the preparation of this area structure plan and has provided opportunities for comment throughout the plan preparation process and through formal circulations.

3.0 THE NATURE OF THE PLAN AREA

3.1 PHYSICAL CHARACTERISTICS

The natural landscape of the Greater Bragg Creek area contains a transition between true prairie grasslands and the parkland vegetation typically found within the eastern slopes of the Rocky Mountains. The structural geology of the Greater Bragg Creek area has defined its characteristic ridge and valley topography, creating an abundance of spectacular vistas traversed by extensive areas of rugged terrain, dense vegetation and natural waterways. Complex drainage patterns form part of the

headwaters of the Elbow River, through the Bragg Creek and the Jumping Pound Creek tributary systems. The watershed holds regional significance as it supplies drinking water for approximately one sixth the province's population. Extensive riparian habitat supports a diverse array of fish, birds, and mammals.

Both the Elbow River and the Bragg Creek area are subject to periodic flooding, resulting from a combination of late melting snow packs and multiple-day rainstorms that often create unpredictable stream flows. A significant proportion of the Plan area, and more particularly the majority of the hamlet, lies within the 1:100 year Elbow River floodplain. Outside of the floodplain, surface water drains towards lowland areas where soils are typically



poorly drained glacial tills, resulting in seasonally high groundwater conditions that can impact opportunities for subdivision and development. Slope instability, high water tables, potential aquifer contamination, and ground water recharge are all issues that need to be addressed in relation to future development.

Much of the Plan area remains in an undeveloped state. While the majority (65%) of the Plan area outside of the hamlet is designated to accommodate agricultural development, the climatic, vegetative, and topographical constraints that characterize the majority of these lands support relatively low-density extensive agricultural pursuits that have not significantly impacted the natural landscape. Privately owned, open, undeveloped and/or undisturbed tracts of land exist in abundance and visually dominate the Plan area. Approximately 800 acres within the Plan area are provincially owned "leased lands" that contribute significantly to the local agricultural base and contain a wealth of

undisturbed natural areas. The look and feel of these private open landscapes defines much of the character of the Plan area – a character that is cherished by local residents and sought after by developers who understand the attractiveness of the area to potential acreage owners and recreationists.

The Greater Bragg Creek area is located within a "wildland/community" interface. The existing land uses have developed in and amongst an old growth forest, which extends into the area from the adjacent forestry reserve. Fine fuel moisture content on the forest floor and the fuel loads that have been controlled by man (and not addressed by nature) create a year-round fire risk, with late winter/ early spring and the fall (during leaf drop) being the highest risk times. Specialists in the Alberta Forestry Service have identified this fire risk as being equal to or greater than any area in the province. When the often uninterrupted nature of this vegetative cover is coupled with residential and agricultural property improvements, the potential is heightened for local structural fires to spread onto adjacent properties. This wildfire concern is compounded by limited availability of access to lands west of the Elbow River and somewhat lengthy response times for emergency service responders who travel to the area from other locales.

Oil and gas reserves underlie the Greater Bragg Creek and surrounding area. Although extraction activities are not taking place within the boundaries of the Plan area, industry is actively pursuing resources within lands that surround the Plan area.

3.2 HUMAN CHARACTERISTICS

3.2.1 Settlement History

The community of Bragg Creek "officially" began in 1914 with the construction of the first post office near the Saddle and Sirloin subdivision. Local settlers soon moved to the southern shore of the Elbow River where they discovered the frequently disastrous effects of springtime flooding. Ranching activities comprised the dominant local land use until construction of hunting lodges began in the 1920s. The first general store was built in 1921, prior to which supplies were brought into the area from either Calgary or Cochrane. Soon thereafter, construction of numerous cabins



began to accommodate affluent retirees and families from Calgary wishing to enjoy the community throughout the summer months. The post-World War II era witnessed many property ownership changes; largely resulting from estate and tax sales of properties owned by men who gave their lives in conflict. This wave of new owners included mostly affluent Calgarians who were interested in pursuing the area's recreational opportunities.

The community's tourism economy was established during this time with the establishment of several horse rental operations and riding clubs. In the mid-1950s, the hamlet of Bragg Creek was a tiny residential community with a mix of seasonal and year-round dwellings, while the surrounding countryside contained mostly un-subdivided agricultural quarter sections. During the 1970s, improvements to the provincial transportation system made a daily commute to Calgary possible and gave rise to the creation of numerous country residential subdivisions. Since then, many of the 20-acre subdivisions within West Bragg Creek have been in-filled, with pressures for additional local subdivision and development anticipated to continue.

3.2.2 Existing Land Use

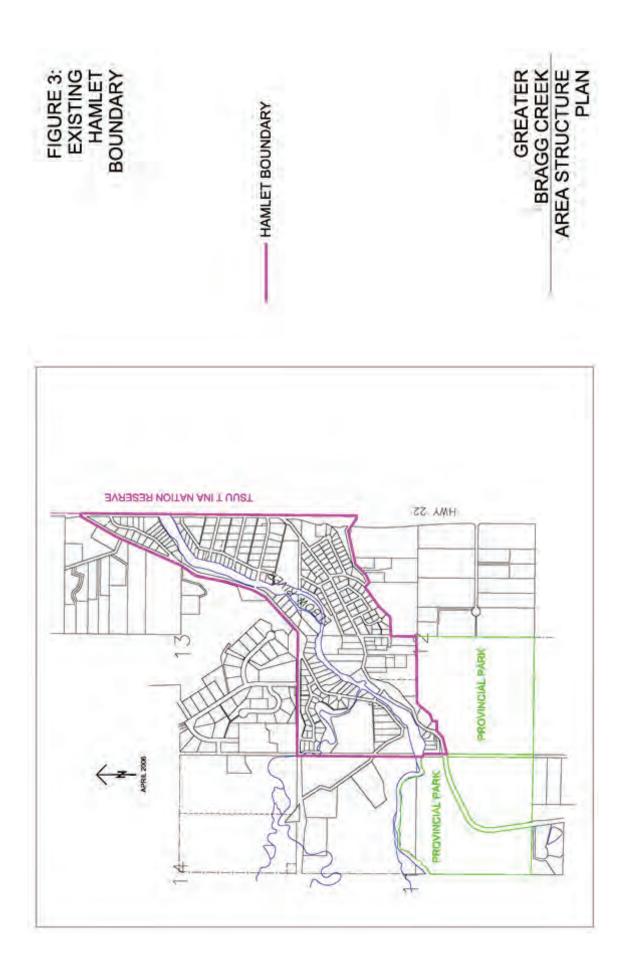
The hamlet of Bragg Creek is now home to 245 residences and 678 people. As seen on Figure 3, it stretches across the Elbow River to include the neighbourhoods most commonly known as Yo Ho Tinda and Lower Elkana. Additionally, it boasts a unique commercial core that contains the majority of the business development within the Plan area and provides goods and services that range from those purchased by the local population on a year-round basis to those that attract national and international tourists during the height of the summer season.

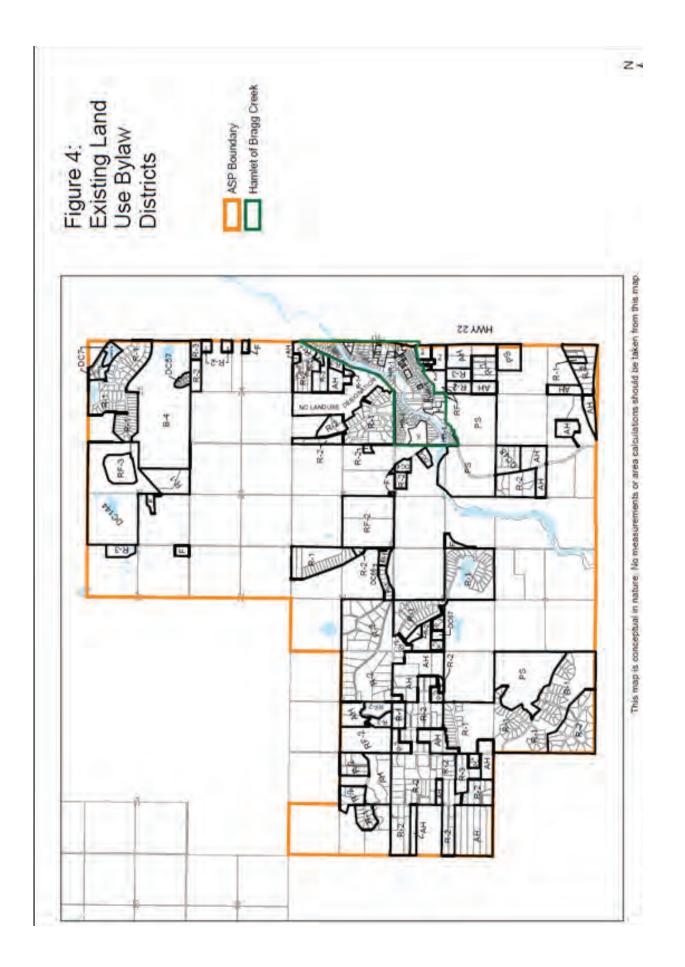
The natural landscape of the Greater Bragg Creek area has created opportunities for regional and provincial recreational amenities. The public day use amenity of Bragg Creek Provincial Park and the privately owned and operated Wintergreen golf course are located within the Plan area. Kananaskis Country, a significant year-round provincial recreational area, lies immediately to the west of the Plan area, resulting in Bragg Creek frequently being referred to as "The Gateway to the Kananaskis".

Outside of the hamlet, approximately 26% of the Greater Bragg Creek area has been subdivided into country residential acreages in a somewhat incremental subdivision pattern that has, over time, responded to natural environmental constraints. These developments are surrounded by privately owned, open landscapes provided by the relatively undeveloped agricultural lands. Resulting from continued changes brought on by development, the look and feel of these open landscapes is expected to evolve over time.

Figure 4 illustrates the Land Use Bylaw designations of lands within the Plan Area at the time of Plan adoption.

Full upgrades of the wastewater treatment plant may accommodate a population up to 8,700 at full build-out (dependent on non-residential development that uses wastewater capacity), this takes into consideration that the wastewater treatment plant capacity is shared with Balzac and Conrich.





3.3 EXISTING INFRASTRUCTURE

3.3.1 Water and Wastewater Utilities

Development within the hamlet has been restrained since adoption of subdivision and development restrictions in the hamlet of Bragg Creek Area Redevelopment Plan (ARP) in September 1998. In large measure, these restrictions stem from geotechnical conditions that do not support effective use of private sewage treatment systems (PSTS) and from the shallow, untreated water wells that most hamlet residents rely on. Although the raw water quality of the Elbow River in the hamlet of Bragg Creek is believed to be fair, risks from water borne diseases are believed to remain high. Consequently, many hamlet residents drink bottled water and most commercial operators currently haul in treated water from outside the community at significant added expense. An objective of the ARP was to "prohibit subdivision until the hamlet's groundwater constraints have been resolved and solutions implemented." Implementation of a municipally-owned water distribution system and wastewater collection and treatment system is underway: design is complete and provincial and federal sources to augment municipal funding are being investigated.

Provision of safe water and wastewater services is also an ongoing concern in the balance of the Greater Bragg Creek area. The majority of properties developed outside of the hamlet rely on individual wells for potable water and on PSTS for wastewater treatment. However, the ultimate capacity of the local watershed to provide potable water and of the ground to effectively accommodate PSTS has never been assessed. The responsible management of groundwater as a finite resource and implementation of environmentally responsible wastewater treatment and disposal methods are considered both desirable and necessary as residential development continues within the Plan area.

3.3.2 Transportation

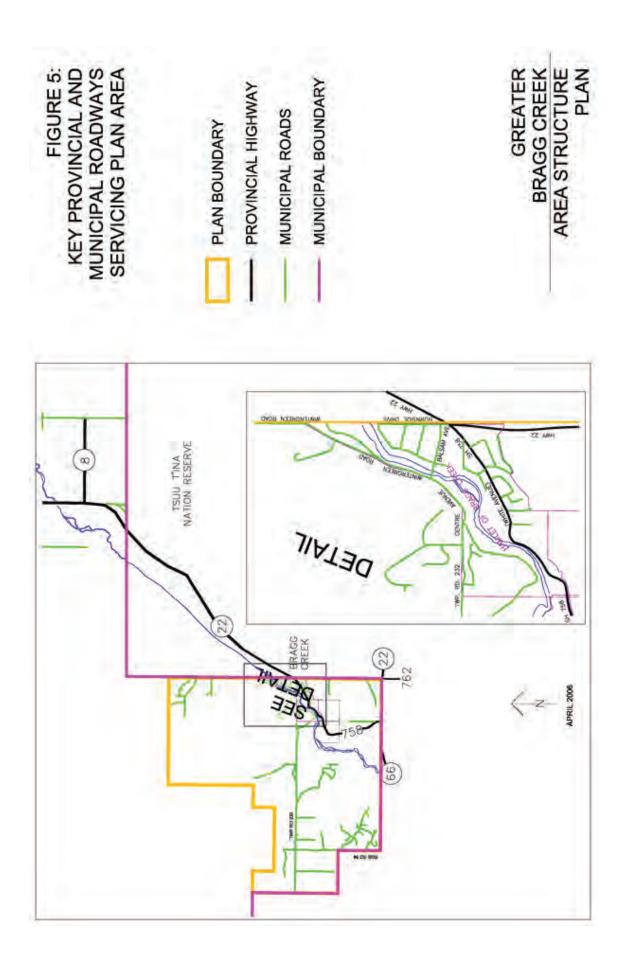
The Plan area is conveniently accessed via provincial highways, with many local residents commuting to the city of Calgary each day. The provincial transportation system includes four highways that either directly traverse or lie immediately adjacent to the Plan area. Highway 22 provides access from both the north and the east; Highway 66 carries traffic west into Kananaskis Improvement District; Highway 758 leads traffic from Highway 22 through the hamlet to the Bragg Creek Provincial Park; and Highway 762 brings traffic from the south. Although located outside the Plan area, Highway 8 is also an important transportation connection linking Greater Bragg Creek and the city of Calgary.



The municipal road network has been established to facilitate access throughout the Plan area. Important roads within Greater Bragg Creek include Range Road 54 (Elk Valley Road), Township Road 232 (the West Bragg Creek Road) and the Wintergreen Road. Key roads within the hamlet include Balsam Avenue, Centre Avenue and Burnside Drive. Figure 5 illustrates the key provincial and municipal roads that service the Plan area.

⁶ The Hamlet of Bragg Creek Area Redevelopment Plan, Schedule "A" to Bylaw C-4935-98, Rocky View County, Department of Planning and Development, Approved September 29, 1998. ⁷ Ibid, Pg. 6

The alignment between highways and municipal roads within the Plan area has resulted in an unusual operational configuration that blends provincial and municipal interests. Balsam Avenue is the main commercial street of the hamlet with a direct access onto both Highway 22 and Highway 768 at a three-way stop. Likewise, Highway 758 (White Avenue), under provincial jurisdiction, functions as a key municipal road within the hamlet. Lastly, the bridge at Balsam Avenue, owned and maintained by the Province, is the single access point for all lands within the Plan area located west of the Elbow River.



3.3.3 Shallow Utilities

Shallow utilities provide functional service to a geographic area and to individual lots. These utilities include services such as telephone, natural gas, electricity, cable, and internet service that are sold to individual customers by commercial utility companies. The landowner is responsible for the coordination and installation of these utilities and the County endeavours to facilitate uninterrupted delivery by defining common utility rights-of-way relative to each subdivision.

Within the Plan area, delivery of internet access and cellular telephone service is challenged by topography and a small customer base. Until newer technology and/or larger numbers of users increase the financial viability of service provision, it is unlikely that delivery of these services will improve.

3.3.4 Community, Protective and Emergency Services

To some extent, the special quality and character of life that is evident within the Greater Bragg Creek area is created by the close connection that residents feel to the environment and the somewhat isolated nature of the Plan area itself. Recreation and cultural programs that contribute to the quality of life have, to date, been available through the local recreation board. This organization has been responsive to the funding and programming needs of the community through operational and program support of facilities such as the Bragg Creek Centre and the Snowbirds Centre. A recently completed survey of residents' needs/desires for support and leisure services, the Community Survey 2005 Technical Report for Rocky View West Recreation District, will help to inform future funding and programming needs within the Plan Area. Excess facility capacity for implementation of these programs is available at the Bragg Creek Centre alleviating any need for the development of additional similar facilities in the foreseeable future. Two nearby multi-use facilities in Cochrane (the Spray Lakes facility) and Springbank (Park for All Seasons) augment existing recreational and cultural infrastructure.

Rocky View County's Family and Community Support Services (FCSS) program currently co-funds a variety of programs and services in the hamlet and the nearby town of Cochrane that Bragg Creek residents can and do access, including volunteer development, family life enrichment courses, information and referrals, a resource library, in-home support, and other preventative social services.

Banded Peak School, located to the south of the hamlet along Highway 22, is another integral component of the facilities that serve this area. Neither Rocky View nor Calgary Catholic School Divisions have identified short or medium term needs for additional school facilities to serve the Greater Bragg Creek population; however, room for future expansion or the construction of a new school is available on, and adjacent to, the Banded Peak School site.

Provision of protective and emergency services, which are currently provided to the Plan area through collaboration among Rocky View County and surrounding municipalities, is an ongoing concern. The two most significant issues that presently fuel this concern are the single access for all lands west of the Elbow River (Balsam Avenue Bridge) and the absence of a municipal water supply and distribution system capable of delivering adequate fire flows. Until these two issues are addressed, future subdivision and development within the community will compound existing protective and emergency service concerns.

3.4 ANTICIPATED POPULATION GROWTH

Existing population of the hamlet was recorded by Statistics Canada in 2001 as 678 people, residing in approximately 245 dwellings. The Greater Bragg Creek area had a population of 1488, residing in 575 dwellings.

Anticipated population growth for the Plan area can best be estimated on the basis of existing population data (2001 Statistics Canada) and projections for full build out that could result from the density and development standards of this Plan. It is very difficult to assess, at this time, what the resulting population could be for either the hamlet or the balance of the Greater Bragg Creek area because future development will depend on more detailed planning studies to identify those portions of the Plan area that are realistically able to be developed.

Constraints to development include environmentally sensitive lands which, by the policies of this Plan, would be excluded from development; the serviceability of the lands and the amount of land required to accommodate future servicing infrastructure; the amount of land required to provide an adequate, safe and efficient local road network for the area; and the ability of the current subdivision fabric to accommodate additional subdivision given existing parcel areas and configurations. Many of these constraints can be quantified only at the time of the proposed development, based on the market, the vision of the developer to meet that market demand, and the desire to change existing land use; and the low probability that all of the agricultural lands that currently exist will be converted to accommodate future residential development. Given these caveats, the anticipated population growth figures provided below tend to overstate the actual amount of development that will occur. They can best be described as "unrealistic maximums," but they serve to give an indication of the implications of future development of the area, over the long term – perhaps even longer than the 25 year life that has been attributed to this Plan.

In accordance with the Gross Developable Area formula included in this Plan, these numbers have been generated for Infill Residential Development areas by dividing the area of any parcel that could be further subdivided by the allowable minimum parcel size. In New Residential Development areas, these numbers assume that only 65% of the parcel is developable, with the balance accounting, on average, for environmental constraints, municipal reserve dedications, and infrastructure requirements. Resulting areas have then been divided by the overall densities allowable for the specific policy areas.

Potential for growth in that portion of the Plan area outside of the hamlet does not include lands that have been identified for future hamlet expansion. Rather, these lands have been included in the potential development of the hamlet itself. The remaining area includes lands identified as both Infill and New Development lands within each of the West, North, and South Bragg Creek Policy areas. Potential additional housing units are shown in the table below.

Within the hamlet of Bragg Creek, additional residential growth will likely occur through the re-subdivision of existing residential lots, the comprehensive development of larger undeveloped areas within the existing hamlet boundaries, and the expansion of residential uses into the identified hamlet expansion area, based on the policies contained within this Plan.

Table 1: Number of Additional Housing Units by Policy Area

	Infill Development	New Development	Total Development
West Policy Area	115	390	505
North Policy Area	25	540	565
South Policy Area	35	190	225
Hamlet (including Hamlet Expansion Area)	205	360	565
Total	389	1480	1860

At a reasonable occupancy level of 2.6 persons per housing unit, the figures in the above table, combined with the existing population of the Plan area, could result in a future hamlet population of 2,147 people and a population of 4,855 people outside of the hamlet, for a total future population of 7,002.

⁸ Figures in this table are considered to "unrealistically" overstate the potential future housing units that will be developed, both within and outside of the hamlet in the Plan area, given the policies within this Plan. Numbers in the table do not account for undevelopable areas within Infill Residential Areas or accurately reflect them in New Residential Areas of the Plan. As explained in the accompanying text, the extent of these constraints, and hence the impact that they will have on the number of future housing units that are physically able to be constructed will not be identified until more detailed planning studies are conducted at the time of development.

4.0 PLAN PHILOSOPHY AND GOALS

4.1 PLAN PHILOSOPHY

The Greater Bragg Creek Area Structure Plan articulates a vision for the future of the Plan area. This vision belongs to the community: the Plan's stakeholders. This diverse group includes, but is not limited to landowners, who may or may not be residents of the area, developers with interests in the Plan area, business owners/operators, government agencies, adjacent jurisdictions, and Rocky View County.

The land use and development principles that underlie the vision balance the issues and interests of the community, as they were identified during the public involvement process. The principles provide a development framework that will assist municipal policy makers, planners, landowners, and potential developers in making decisions that reflect what the community considers to be appropriate forms of future land use and development within the Plan area.

These principles are predicated on the importance of managing future development in a manner that retains the beauty and maintains the latent utility of the natural environment in the Plan area. They have been developed, and should be implemented, from the ground up, looking first at the capabilities of the land to sustain additional development, then at the infrastructure required to service the area and finally, identifying the most appropriate forms of land use and development that reflect the balance of stakeholder interests.

Policies within this Plan have been developed to reflect the balance that best meets the interests of the collective community. Within specific policies, the wording is intended to reflect the importance of an issue to the community. Operative wording of "shall," "should," and "may" has been used throughout the policies:

- When "shall" is used, the community intends for the action to be mandatory. The community realizes that this inherently reduces flexibility for decision makers to find unique solutions to situations that arise, however, the community has contemplated the consequences of when and if an alternate action would be appropriate and has determined that the action required by the policy best reflects the community's desires.
- When "should" is used, the community realizes that there will be cases where its desires can be achieved through alternate actions but it strongly advises that the action be taken, in order to achieve the balance that is articulated in the vision and through the policies.
- When "may" is used, the community recognizes that the policy is identifying a matter of consequence but that choices can be made without negatively impacting the balance of interests that the community has identified. The policy is not offering any particular direction or guidance to those using the Plan.



Two major points about the balance of stakeholders' interests are worth noting. First, there is quite a range of stakeholders within the Plan area who, on the surface, may appear to have conflicting objectives. However, through the Plan preparation process, it was often possible to find ways that development could proceed where the underlying interests of all parties could be respected. In other cases, it is recognized that future development will represent a tradeoff between diverse interests: a tradeoff that each of the affected stakeholders can live with.

The second point is that the interests of all stakeholders make demands on the finite land base and water quality within the Plan area. The balance that has been found among these interests has been predicated on the capacity of the land to accommodate the use. Throughout the Plan preparation process, it became evident that some of the information required to assess adequately the demand that different land uses will have on the land base is not currently available. In some cases, studies will need to be completed by the County, often in consultation and partnership with other agencies and stakeholders. However, very frequently, policies identify the need for the development proponent to supply information so that impacts can be identified and adequately mitigated.

4.2 PLAN GOALS

The Terms of Reference for the ASP, adopted by Rocky View Council in October 2003, identified a number of goals for the Plan. The policies of the Plan speak to these goals and provide an implementation strategy by which the balance of stakeholder interests will be achieved. These goals are reproduced below:

- a) To establish a baseline assessment of current conditions within the Plan area including preparation of a transportation study, a master drainage study, a biological impact assessment and a wildfire risk assessment;
- b) To establish a future land use and development phasing strategy having regard for the Plan area's existing pattern of land use, local physical and/or environmental constraints and opportunities, anticipated growth trends and infill/density potential and future infrastructure requirements;
- c) To establish a transportation infrastructure network that addresses short and long-term local and provincial transportation requirements within the Plan area and establishes implementation policies regarding any required infrastructure improvements;
- d) To establish land use policies that support implementation of a master drainage plan and the County's utility infrastructure system within the Plan area;
- e) To evaluate the appropriateness of establishing or expanding business development within the Plan area, and by doing so, establish a framework of design standards and guidelines to facilitate development of business uses with a unifying architectural theme consistent with the natural environment;
- f) To evaluate existing and future development opportunities adjacent to the Elbow River, the Bragg Creek and other natural drainage courses within the Plan area, and establish clear policies that protect the local watershed as a regional resource;
- g) To undertake a risk assessment to evaluate the local wildfire hazard within and adjacent to the Plan area, and by doing so, establish a framework for development for subsequent land use policies designed to mitigate identified risks;
- h) In consultation with local school authorities, to evaluate existing and future educational facility demands and, where deemed appropriate, provide for potential school sites within the Plan area;

- i) To establish an integrated recreation and open space system required by the range of uses proposed within the Plan area, and by doing so, establish policy direction concerning when and how municipally owned lands may be acquired for recreational purposes and how improvements within same shall be implemented; and
- j) To determine financial responsibility for all improvements proposed within the Plan area.

4.3 PLAN PROCESS

In addition to setting out the goals for the Plan, the Terms of Reference identified a preparation process for the Area Structure Plan that included

- The preparation of a baseline assessment to provide technical background information regarding the environmental and infrastructural characteristics of the Plan area, including a transportation study, a master drainage study, a biological impact assessment, and a wildfire risk assessment.
- Direction to conduct an extensive public participation program as a component of the plan preparation process,
- Formation of a steering committee with primary tasks of establishing the goals and expectations for a public participation process; identifying stakeholder groups having interest in the Plan and establishing a mechanism to request their input throughout the policy formulation process; preparation of a list of recommendations or policy directions based on information gathered from the public and stakeholder consultation process; and, based on feedback from the draft Plan's public review and external circulation, preparation of a final list of recommendations to be included in the proposed Plan for Council's consideration. Completion of the baseline assessment was seen to dictate the logical timing and sequencing of the committee's work program. The steering committee met a total of 45 times to review technical information and incorporate it with the input and feedback obtained from the public and stakeholder consultation process.

Formation of sub-committees of the steering committee, on an as-needed basis, with the mandated formation of a commercial sub-committee, tasked with preparation of a commercial vision for the Plan area. The commercial sub-committee completed a comprehensive review of the existing commercial development throughout the Plan area, including identifying and meeting with relevant stakeholder groups, to create recommendations for future business development both within and outside of the hamlet. These recommendations were vetted by the business community prior to being forwarded to the steering committee. They have been incorporated into this Plan, following modifications by the steering committee. (See Section 7.3 for hamlet commercial development, See Section 7.5 for commercial development outside the hamlet, See Appendix A for hamlet of Bragg Creek design standards).

• In addition to the commercial sub-committee, the steering committee created a trails subcommittee, tasking it with development of policy recommendations designed to support the development of a comprehensively planned pathway (trails) system within the Greater Bragg Creek area. These recommendations have been included in the Trails chapter of the Plan. (See Section 6.3 for Trails). As noted, the Terms of Reference mandated that an extensive public involvement program be conducted as a part of the plan preparation process. In fact, prior to the adoption of the Terms of Reference, a survey had been sent to all households and businesses in the Plan area, requesting input on a wide range of issues that were to be subsequently addressed in the Area Structure Plan. This survey formed the initial base of public opinion considered by the steering committee. Subsequently, an open house and visioning workshops were held, to facilitate issue identification and vision formulation by area residents. Once developed, a comprehensive set of draft policy directions were presented at an open house and circulated for public and stakeholder review. Feedback from this review was considered by the steering committee, appropriate adjustments were made to the draft policy directions and the draft Plan was prepared and released at an open house in December 2005. Consideration of feedback from its public and stakeholder review resulted in the proposed Plan that was considered by Rocky View Councy Council in the spring of 2006.

The extensive nature of the public and stakeholder consultation process has provided an excellent opportunity for the community to articulate its desires in advance of significant levels of development occurring within the Plan area. It has presented an opportunity for considered input into how future development will look and feel, paving the way for the evolution of a physical and social fabric that reflects a considered and accepted balance of stakeholder interests.

4.4 POLICY AREAS

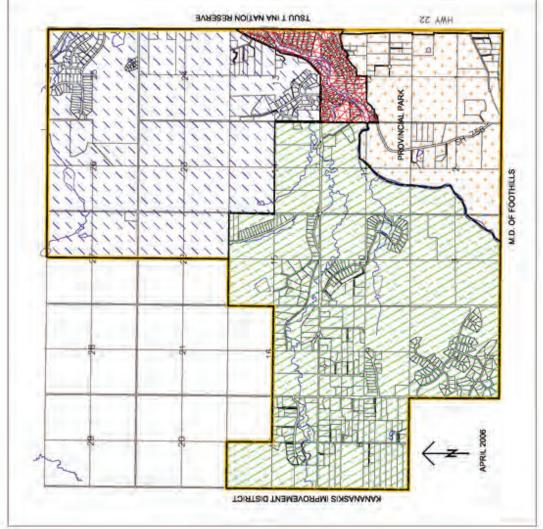
The Greater Bragg Creek Area Structure Plan includes all lands shown in Figure 1. Based upon common relationships with existing transportation routes, current local land use and subdivision patterns, and natural fragmentations, the Terms of Reference for the Plan contemplated four distinct policy areas with the idea that it may be useful to develop visions and land use strategies unique to each policy area. The four policy areas are shown on Figure 6 and are described as follows:

- Hamlet of Bragg Creek Policy Area containing all lands within the current boundaries of the hamlet;
- West Bragg Creek Policy Area containing the area bounded by Kananaskis Improvement District #5 to the west, Crown-owned provincial lease lands to the north, the Elbow River and the hamlet of Bragg Creek to the east and the MD of Foothills to the south;
- North Bragg Creek Policy Area containing the lands bounded by crown-owned provincial lease lands to the west and north, the Tsuut'ina Nation Reserve to the east, and the hamlet of Bragg Creek to the south; and
- South Bragg Creek Policy Area containing all of the lands (outside the hamlet boundary) located south and east of the Elbow River;

Throughout the Plan preparation process, it became clear that the community views those lands that lie outside of the hamlet in a relatively homogeneous manner. The need to develop distinct visions and policies for each of the areas contained within the West, North, and South Bragg Creek policy areas would be to suggest differences in the underlying values and interests of residents and stakeholders that seem not to really exist. As a result, the ASP generally addresses the entire Plan area, distinguishing where appropriate between the hamlet and the balance of the Plan area that lies outside of the hamlet. In the few instances where distinctions amongst the West, North, and South Policy areas seem appropriate, differences are identified within individual policy statements.

Identification of the distinct policy areas has been useful however, in characterizing the geographic areas that lie within the Plan area and reference to them is made consistently throughout the Plan from this perspective





SECTION B – POLICY FRAMEWORK

5.0 RESPECTING THE NATURAL ENVIRONMENT

Preservation of the beauty and integrity of the natural environment is an objective commonly held by the majority of residents and recreational visitors to the Greater Bragg Creek area. It is a basic premise underlying the majority of policies within this plan.

To understand more completely the contribution that the Greater Bragg Creek area makes to the broader ecosystem within which it lies, a resource inventory and sensitivity analysis (RISA) was completed. While this study identified a number of data gaps with respect to baseline environmental information, it made a number of significant conclusions that must be heeded if future land development is to be balanced against habitat and water conservation.

The range of natural variability in the area and age class composition of major plant communities within the Plan area is seen as a useful surrogate in ensuring that a full suite of biota (both plant and wildlife species) is maintained throughout the Plan area. This can be approximated by modeling the disturbance impact that fire would have on the current (2001) forest composition. It is a measure that can guide development decisions so that disturbance resulting from development will not exceed acceptable levels of deforestation that would occur through natural disturbance regimes. Applying this concept conservatively indicates a need to maintain the forest composition of the Plan area within a range of 0.5 to 2.0 times the current conditions.

Implementation of this approach to conservation management will require continuous monitoring of the cumulative impact of development on the current composition of all major plant communities in the Plan area, including aspen forests, mixed wood forests, pine forests, white spruce forests, lowland shrub/muskeg complexes, native grasslands, and riparian assemblages.

To complement this decision making tool, the RISA study also identified a need to preserve connectivity of undisturbed areas, especially those adjacent to water bodies, which serve a dual purpose of improving and maintaining high quality water recharge to surface water bodies and

maintaining wildlife corridors. This conclusion led to the recommendation that riparian lands be protected from development by riparian buffer.

The purpose of policies in this section of the Plan is to implement these conclusions of the RISA study and to identify other criteria considered important to ensure the natural environment is to be respected as future development occurs within the Plan area. In addition to policies in this section of the Plan, which pertain directly to the natural environment and open space, respect for the natural environment is an underlying premise that permeates the policies in all other sections of the Plan.



⁹ Resource Inventory and Sensitivity Analysis (RISA), Greater Bragg Creek Area, Alberta. Prepared for Rocky View County by Alpine Environmental Consultants, in conjunction with the RISA Technical Team, February 2005. For information purposes only, this study has been appended to the ASP.

Additionally, this section of the Plan addresses the local historical context within which future development will occur. This context represents those cultural and settlement phenomena that have come to be important to the community over time. These aspects of the existing environment also need to be protected and respected as development continues within the Plan area.

5.1 NATURAL ENVIRONMENT

VISION:

It is the year 2030. The Greater Bragg Creek area contains a rich abundance of vegetation and wildlife, and the land use pattern continues to be shaped by the dominance of the natural environment. The environmental integrity of the area has been preserved, as has a community value that nature is to be respected and revered, rather than representing an obstacle to future development. While development has continued to occur in the Greater Bragg Creek area, it has happened in harmony with the natural environment, to a scale and character that blends with, rather than dominates the landscape, and in a manner that respects the carrying capacity of the land.

POLICIES

5.1.1 Vegetation

- a) An appropriate diversity of vegetative cover (i.e. plant community as described in Section 5.0) within a defined acceptable "range of natural variability" (i.e. no less than ½ and no more than 2 times what currently exists) shall be maintained on a cumulative basis throughout the Plan area.
- b) Subject to municipal budget considerations, the County should maintain an ongoing inventory of the vegetative biodiversity (i.e. plant community as described in Section 5.0) within the Greater Bragg Creek area, to measure the cumulative impact of development on the area and age class composition of major plant communities as they existed, and were recorded in the Alberta Vegetation Inventory (AVI) in 2001. This inventory should be updated at least every five (5) years, for use as described in Section 5.1.2.a
- c) Wherever possible, development should attempt to minimize disturbance and removal of natural vegetation within the Plan area. Development should follow the low impact development method (i.e. retention of at least 65% native vegetation, 10% maximum impervious surfaces and 0% effective impervious surfaces.
- d) The Land Use Bylaw should be amended to require approval for the removal of significant areas of trees within the Plan area.

5.1.2 Wildlife

a) The resource inventory and sensitivity analysis assumes that wildlife movement occurs within the undisturbed natural areas that link upland vegetation with riparian areas. In order to preserve and maintain opportunities for wildlife movements throughout the Plan area and to minimize fragmentation of the natural environment by providing contiguous habitat, environmental reserve shall be dedicated to preserve and maintain habitat and natural connectivity between riparian edges and upland forested areas.

¹⁰ Alberta Vegetation Inventory data is available from Alberta Forestry and was used to prepare the Resource Inventory and Sensitivity Analysis (RISA) study that was completed in support of this Plan. Primary and sub-dominant tree species and their current abundance (%) are assessed by Alberta Forestry using audited aerial photo interpretation (1:20,000 orthophotos) and ground truthing.

- b) Where identified contiguous habitat areas and/or wildlife movement corridors do not qualify as environmental reserve or environmental reserve easement, consideration shall be given to other mechanisms to preserve and maintain wildlife habitat and connectivity.
- c) Where such opportunities for connectivity cannot be acquired through dedication of either environmental or municipal reserves, landowners shall be encouraged to voluntarily register conservation easements to preserve and maintain wildlife movement corridors.

5.1.3 Rivers, Streams and Riparian Areas

- a) A riparian buffer policy shall be implemented within the Plan area in order to restrict and/or regulate development within the riparian buffer of all surface drainage features (including wetlands).
 - For lands outside of the hamlet, the riparian buffer for the Elbow River is a 50-metre strip that extends outside of the active flood plain. For all streams, tributaries and wetlands, the riparian buffer is defined as a 30-metre strip on both sides of the stream or edge of the wetland, measured from the high water mark.
 - Within the hamlet of Bragg Creek, the riparian buffer for the Elbow River is a 50-metre strip that extends beyond the floodway, as shown on the Bragg Creek Flood Risk Map, and the riparian buffer for Bragg Creek is a 30-metre strip that extends beyond the floodway, as shown on the Bragg Creek Flood Risk Map.
- b) Subdivision that is approved within a riparian buffer shall be undertaken in a manner that ensures the protection of the riparian buffer. The exact mechanism(s) to ensure protection shall be negotiated between the developer and the County and could include restrictive covenants, use of an environmental land trust, dedication as environmental reserve, or some other permanent protective solution.
- c) The riparian buffer policy shall be consistent with the directives and objectives of Alberta's longterm water strategy and shall be implemented in a manner that recognizes the Elbow River and its aquifers as an important source of water for human consumption. Rocky View County shall undertake consultation with relevant watershed management groups as part of any future amendment process respecting the riparian buffer policy.
- d) The Land Use Bylaw shall be amended to regulate development within the riparian buffers identified in this ASP. For lands outside of the hamlet, within the riparian buffer, Land Use Bylaw regulations shall address land use and the redevelopment of existing structures and shall prohibit the development of new structures. Within the hamlet, Land Use Bylaw regulations shall regulate development within the riparian buffer by requiring development permits for all developments within the riparian buffer, and by regulating site design, coverage and grading, as well as tree removal, landscaping, land use, setbacks, and flood proofing, so as to promote the protection and enhancement of the riparian buffer's natural qualities. Land Use Bylaw regulations, which apply to the riparian buffer within the hamlet, may take the form of new land use district(s).
- e) Subject to municipal budget considerations, a monitoring station should be constructed within the Plan area to provide ongoing data regarding rainfall, stream flows, and water quality. The monitoring station should be funded, operated, and maintained via a partnership between Alberta Environment and the County.
- f) Developments shall comply with provincial and federal regulations that restrict development activities that are likely to impact fish and fish habitat.

5.1.4 Flooding

- a) As future subdivision occurs, any area that is subject to flooding should be dedicated as environmental reserve.
- b) Subdivision and development shall be prohibited within the floodway and restricted within the flood-fringe of the Elbow River and its tributaries. Development within the flood fringe should only be permitted when minimal negative impact to the Elbow River's drainage system can be demonstrated.
- c) If developments are considered within flood-fringe areas, appropriate flood proofing measures should be provided for all buildings, in conformity with the Land Use Bylaw.
- d) The County, in conjunction with the Province, should update the hamlet of Bragg Creek Flood Risk Map, from time to time. The Land Use Bylaw and the Greater Bragg Creek Area Structure Plan shall be updated to reflect these newly defined areas. The current Bragg Creek Flood Risk Map is shown in Figure 7¹¹.

5.1.5 Upland Areas and Erosion

- a) Developments on slopes steeper than 15% shall be discouraged.
- b) Areas of unstable slopes should be dedicated as environmental reserve (or environmental reserve easement).
- c) To preserve the land's natural ability to provide for groundwater recharge, stormwater management, and to reduce negative impacts of erosion and siltation within downstream areas, significant removal of vegetation within upland areas should be discouraged.

5.1.6 Local Environmental Stewardship and Community Education

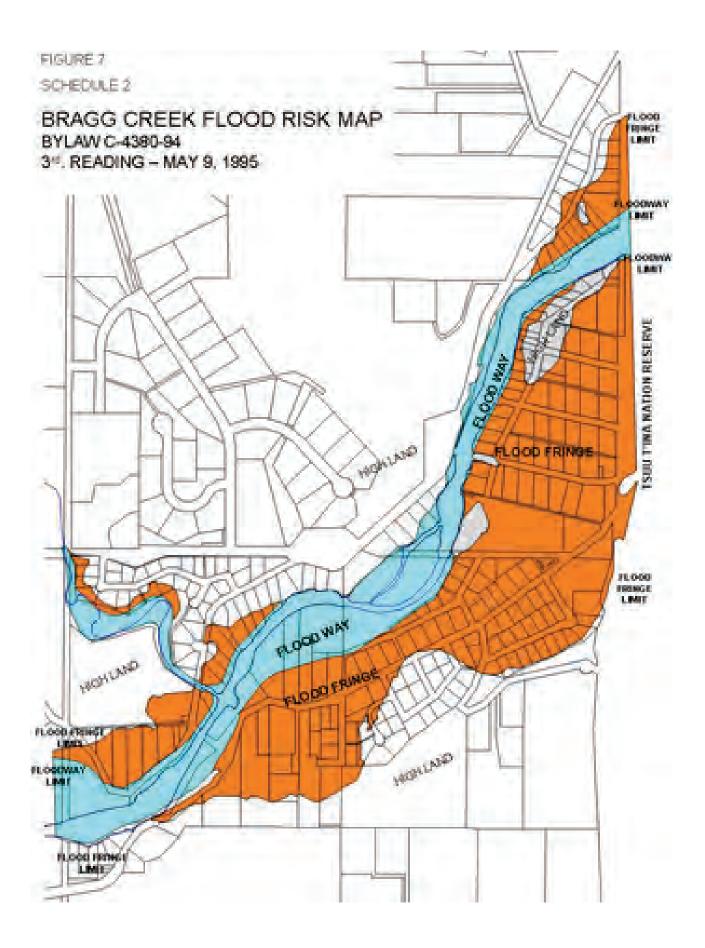
- a) Ongoing opportunities for public education programs designed to promote an understanding and awareness of local watershed and surface drainage issues should be encouraged.
- b) The creation of local watershed advisory councils and watershed stewardship groups should be encouraged, subject to municipal budget considerations, to help develop "grass roots" solutions that preserve and maintain the integrity of the watershed and raise awareness of local environmental issues and concerns (as per the Province of Alberta's Water for Life Strategy¹²).
- c) Educational opportunities with respect to Fire Smart practices within natural environmental areas should be encouraged (in accordance with the Province of Alberta's Partners in Protection handbook¹³).
- d) Responsible agricultural management practices that preserve the integrity of riparian areas should be encouraged (e.g. Alberta Riparian Habitat Society's Cows and Fish Program¹⁴).

¹¹This map (Bylaw C-4380-94) is Schedule 2 of the Land Use Bylaw, C-4841-97, adopted September 29, 1998

¹²Water for Life: Alberta's Strategy for Sustainability, Alberta Environment, November 2003

¹³FireSmart: Protecting Your Community from Wildfire, Alberta Sustainable Resource Development, Partners in Protection, July 2003

¹⁴More information on this program is available at www.cowsandfish.org.



5.2 OPEN SPACE

VISION:

It is the year 2030. The appeal of the Greater Bragg Creek area continues, in large part, to be generated by the dominant visual aesthetic of the undisturbed open landscapes. Many of these remain privately owned: some continue to sustain agricultural uses; others are incorporated within comprehensively designed residential developments where management strategies ensure that they continue to afford the latent utility associated with natural processes such as stormwater management, groundwater filtration and recharge, and wildlife movements.

Dedication of public open spaces has served to preserve and enhance the land's environmental integrity, and to provide opportunities to enhance the local residents' quality of life through passive and active recreation. Outside of the hamlet, the amount of public open space has been increased through dedication of municipal reserves. These spaces have facilitated development of a community open space and trail system that serves to connect areas of residential development with each other, the hamlet, Bragg Creek Provincial Park and Kananaskis Country lands immediately west of the Plan area.

Inside the hamlet, inviting pathways link the shops with the river. They are populated with pockets of public space that invite pedestrians to relax and enjoy the unique connection that Bragg Creek has with nature.

POLICIES

This chapter seeks to address community expectations around the future role of open space in the Greater Bragg Creek area. This role has three components – to preserve the rural character of the area, to preserve the natural environment, and to provide the community with recreational amenities. Private "open landscapes" and public "open spaces" each have a role to play. Private "open landscapes" are privately owned lands that have remained free from development. Generally, these are currently designated for agricultural use. In the future, some will continue to sustain agricultural uses; others will be incorporated within comprehensively designed residential developments. Public "open spaces" are lands that are publicly owned by the County and have been acquired as either municipal or environmental reserve through the subdivision process.

5.2.1 Policies to Preserve Rural Character

- a) Proposals to develop existing private open landscapes should:
 - sensitively help preserve and enhance the visual integrity of the site (e.g. discourage locating new building sites within the centre of a meadow, maintain irregular field edges when they occur, etc.);
 - implement "cluster" subdivision designs that are less visually intrusive because they minimize the footprint of development;
 - avoid development along ridgelines and/or other visually prominent locations; and
 - avoid clear-cutting of existing vegetation during site preparation. Rather, selective tree removal and pruning of limbs should be encouraged through consideration of Fire Smart development practices, Community education, woodlot management, land use bylaw amendments, developing other municipal bylaws, etc.
- b) Dedication of municipal reserves may be considered to:
 - protect prominent rural vistas and/or culturally significant points-of-interest;
 - provide a visual buffer between existing and new developments; and/or
 - provide appropriate separations between potentially conflicting land uses (e.g. separation of proposed non-agricultural uses in proximity to the Bragg Creek Provincial Park and/or the provincial lease lands north of the Plan area).

5.2.2 Policies to Preserve the Natural Environment

- a) In conformity with the provisions of the Municipal Government Act (MGA), public open space (environmental and/or municipal reserves) should be dedicated to preserve and/or integrate environmentally significant areas.
- b) For purposes of this Plan, environmentally sensitive lands within private open landscapes include riparian areas and upland areas with steep or unstable slopes, as well as any other lands that qualify as environmental reserve under the MGA. These lands should be protected and/or enhanced through implementation of various mechanisms, which are at the discretion of the County, that create areas of open space and restrict development from these lands (e.g. conservation easements and land trusts).
- c) Unless identified for active recreational amenities, public open spaces should remain in their natural "undisturbed" state. Strategies should be implemented to appropriately maintain public open spaces should they become a nuisance (e.g. risk of fire, weeds, etc.).
- d) Development occurring in proximity to the provincial lease lands located north of the Plan area should respect and buffer the natural integrity of these lands.
- e) Development occurring in proximity to Bragg Creek Provincial Park shall respect and buffer the integrity and nature of the park.

5.2.3 Policies to Provide Community Recreational Amenities

- a) Municipal reserves should be dedicated as land rather than cash-in-lieu of land when subdivision occurs on lands that have not already experienced non-agricultural developments.
- b) Outside of the hamlet, when subdivision occurs on lands that have already experienced nonagricultural developments, municipal reserves should be dedicated as land rather than payment of cash-in-lieu of the land.
- c) When considering dedication of municipal reserves, the location and function should be carefully considered to maximize opportunities for improving or enhancing the communal recreation benefit provided by existing open spaces and public facilities.
- d) Public open spaces (municipal reserves) intended to provide for organized recreational activities should be located within close proximity to existing public facilities.
- e) In order to maximize their recreational utility and value, the ongoing use and maintenance of municipal reserve lands should be addressed through a variety of cooperative initiatives, between the County, the local recreation board and local community associations.
- f) The long-term capital needs of existing recreational facilities should be evaluated when considering cash-in-lieu funding requests within the Plan area.
- g) The Rocky View School Division's educational interests are anticipated to expand onto the adjacent 40 acres located directly south of the existing Banded Peak Elementary School site. In consultation with the Joint Use Coordinating Committee (JUCC), consideration should be given to the development of a joint use municipal reserve/school reserve at this location to enhance and broaden recreational opportunities within the community.
- h) An integrated public open space system should include access for local residents to provincial recreation areas located adjacent to the Greater Bragg Creek area.

5.3 AGRICULTURE

VISION:

The year is 2030. Agricultural developments remain an important part of the lifestyle that exists within the Greater Bragg Creek area. Agricultural lands continue to afford the benefits associated with natural processes such as stormwater management, ground and surface water filtration and recharge, wildlife movements, wildfire risk reduction, and the economic sustainability of environmentally sensitive lands. Development, especially the redevelopment of lands from agricultural uses, has been sensitive to existing agricultural uses, minimizing any impacts that could have a negative effect on these uses. In some cases, introduction of new agricultural land uses with minimal off-site impacts and responsible farming practices has been encouraged.

POLICIES:

5.3.1 General Agriculture

- a) Agricultural land uses should be promoted and encouraged to continue within the Plan area. In consultation with the landowner, land should be protected and enhanced through land conservation programs that improve their economic viability, such as land trusts, conservation easements and transfer of development credits (if endorsed by the County).
- b) The rights of existing agricultural developments to continue operating should be supported through implementation of the provincial Agricultural Operations Practices Act and the Farming Practices Statutes Amendments Act ("Right to Farm" legislation).
- c) Redesignation and subdivision for agricultural purposes may be considered if the purpose of the proposed subdivision is to create a new or expanded agricultural operation.
- d) Introduction of new or expanded agricultural uses within the Greater Bragg Creek area should be evaluated in accordance with the following criteria:
 - compatibility with the character of the area;
 - ability of the land to accommodate the type, scale, size, and function of the proposed agricultural use;
 - minimization of negative impacts on adjacent lands;
 - minimization of negative impacts on local municipal infrastructure (e.g. road network, stormwater management, etc.); and
 - minimization of negative impacts on the environment (e.g. air quality, natural drainage systems, disturbance of riparian areas, wildlife movements, etc.).
- e) introduction of new agricultural activities with potential to create significant negative off-site impacts should not be permitted.
- f) introduction of confined feeding operations should not be permitted.

5.3.2 Redevelopment of Agricultural Land Uses

- a) Sensitive integration of existing agricultural land uses should be a primary consideration when evaluating proposals for non-agricultural developments.
- b) Redevelopment of existing agricultural lands should identify and mitigate any resulting changes to stormwater management, wildlife movements and view sheds.
- c) Where development of agricultural lands with non-agricultural uses is deemed appropriate, the resulting subdivision design shall accommodate an appropriate transition and buffer from any existing agricultural operation.
- d) Wherever possible, redevelopment of agricultural lands with non-agricultural developments should proceed in a logical fashion on lands that are contiguous to existing non-agricultural developments and should not negatively impact existing agricultural operations.
- e) Agricultural buildings with local significance should be integrated, wherever possible, within future non-agricultural land uses.

5.4 PRESERVATION OF LOCAL HISTORICAL CONTEXT

VISION:

The year is 2030. The Greater Bragg Creek area has maintained a strong sense of place through deliberate efforts to promote local awareness and appreciation for the community's settlement history. Over time, historical sites with local significance have been identified and assessed throughout the Plan area, and in some cases, mutually beneficial partnerships have been developed between the Province, the County, local developers, and area residents to preserve and maintain these resources. Wherever possible, buildings and landscapes with local significance have been preserved and integrated with new subdivision and/or developments and important local buildings having been renewed and restored through adaptive reuse. A public depository (such as a museum or library) has been established within the community for local artifacts.

POLICIES

- a) Alberta Community Development should review all proposals for subdivision and/or development within the Plan area to determine the existence of significant archeological sites and to establish appropriate preservation and/or mitigation measures if their disturbance is proposed.
- b) Wherever possible, partnerships should be encouraged between local community groups, agricultural operators, and developers to help maintain and enhance appreciation of the community's historical settlement patterns.
- c) Subject to municipal budget considerations, a Greater Bragg Creek historical society should be established to undertake an assessment of buildings and cultural landscapes of local significance within the Plan area. The assessment should identify locations of such buildings and landscapes and a provide rationale that supports why they should be considered historically significant.
- d) Wherever possible, buildings and cultural landscapes of local significance should be preserved and, if possible, integrated with new subdivision and/or developments to retain their historical context for the benefit of the community. As appropriate, they should be preserved and maintained on either municipal reserve or privately owned lands. Where this is not possible, installation of appropriate interpretive signage should be required (e.g. cairns) as a condition of their redevelopment to document their historical context for the benefit of the community.
- e) The adaptive re-use of culturally significant buildings should be encouraged to preserve and maintain the integrity and local significance of their exterior.

- f) In cases where historical buildings qualify for preservation in accordance with the Provincial Historical Resource Act, partnerships between the Province and, subject to municipal budget considerations, the County should be developed to consider financing the preservation and maintenance of these buildings.
- g) Local developers should incorporate names of the community's original settlement families, historical events and/or culturally significant locations into new subdivisions.
- h) A public depository for locally significant historical artifacts should be established within the community.

6.0 INFRASTRUCTURE TO SUPPORT PHYSICAL DEVELOPMENT

The intended outcome of this Area Structure Plan is a framework that will guide future development so that the capacity of the land to accommodate development is not exceeded. Primarily, this speaks to the ability of the environment to provide adequate potable water, safely treat wastewater, and manage stormwater in a manner that does not devalue the integrity of the natural environment. Additionally, it speaks to the ability to overcome topographic constraints to develop an adequate and effective transportation network that encompasses everything from access to individual properties to a municipal road system that can safely and efficiently move residents and stakeholders throughout the Plan area. This includes development of a community trail network as an alternative for movement of non-motorized vehicles and pedestrian traffic.

The purpose and intent of this section of the Plan is to establish the requirements for infrastructure that will support development within the Plan area. All future development proposals will be required to address the policies in this section of the Plan.

WATER

A successful strategy to supply potable water within the Plan area has to be flexible to accommodate ongoing development. Safe potable water needs to be available in a manner that responsibly manages groundwater as a finite resource; appropriately manages local public health concerns; and meets existing and future demands in a fair, equitable, and cost effective manner. Installation of a municipal water system within the hamlet and its immediate service area is actively being pursued by the County and other regional stakeholders. Outside of this service area, if local aquifers can accommodate additional demands, as demonstrated through preparation of preliminary groundwater feasibility assessments required under the Water Act, developments will continue to rely on groundwater: small scale, lower density developments will use private wells but multi-lot developments should implement privately owned decentralized communal water systems to treat and distribute potable water.

WASTEWATER

To be successful, a strategy to provide adequate and safe wastewater treatment within the Greater Bragg Creek area must also be flexible, employing various technologies to provide short and longterm solutions for wastewater disposal. Mechanisms should be implemented to collect, treat, and dispose of wastewater in an environmentally responsible manner, ideally to a higher quality than that required by minimum provincial standards. Because public health and environmental risks appear to be increasing within the Plan area, reliance on individual private sewage treatment systems (PSTS) should be reduced.

As with water, a municipal wastewater collection and treatment facility is actively being pursued for the hamlet and its immediate service area. Use of PSTS should continue outside of the hamlet service area on small scale, lower density developments, with technology being guided by site soil and groundwater conditions. Privately owned decentralized wastewater systems should be installed to collect, treat, and dispose of effluent within multi-lot subdivisions.

STORMWATER

If it is not carefully managed, surface runoff created by new development can negatively impact important drainage systems, riparian areas, groundwater recharge areas, and natural habitat. Because surface runoff is returned to the local watershed, both its quantity and quality must be carefully monitored and treated prior to its eventual release. To preserve and maintain the environmental integrity of the watershed, a stormwater management strategy to manage the quality of runoff should be seen to be equal in importance to potable water and wastewater considerations.

The Greater Bragg Creek Sub-Basin Study, which was prepared by Rocky View County's Utility Services Department in support of the ASP, identifies the need for stormwater to be managed through the development of master drainage plans for each of eight defined sub-basins that affect the Plan area, followed by development of site implementation plans for individual developments. Master drainage plans identify short, medium, and long-term drainage management concepts within the existing topography and physical and biological resources of the sub-basin. Site implementation plans contain pertinent information from the master drainage plan, integrating criteria to design a stormwater management system for the proposed site throughout pre-, during, and post-construction development. These plans detail the design, construction, and implementation of drainage facilities identified within the master drainage plan.

The Sub-Basin Study identifies low impact development guidelines as the key to site implementation plans that are sensitive to the environment. These guidelines emphasize the use of the land's natural capacity to manage stormwater and ensure that there is no net loss to local and regional surface drainage systems as a result of development. Generally, effective low impact development will result in development that retains 65% of the native vegetation on the site, creates impervious surfaces over no more than 10% of the site and does not use any effective impervious systems (hard engineered storm management infrastructure such as curbs and gutters) to collect rainfall and transport it to a point source away from the site.

Fundamentally, if future development is going to be accommodated without negatively impacting the environmental integrity of the Plan area, a holistic, integrated approach must be taken to utility servicing. Such a strategy should not consider each component in an isolated manner: rather, the final determination of the development capacity of any site should be defined by the most severely limited component.

TRANSPORTATION

The local, regional, and provincial road networks that serve the Plan area are also key components to the infrastructure needed by future development. The Greater Bragg Creek Transportation Assessment completed in support of the ASP analyzed current capacities of existing municipal roads within the area. While most municipal roads appear to be operating within their design capacities, several key components of this infrastructure will require ongoing monitoring to preserve and maintain their operating efficiencies. In particular, Township Road 232 (West Bragg Creek Road) is currently operating at or near capacity and the Balsam Avenue bridge provides the only means of access/egress for lands lying west of the Elbow River. Provision of a second access/egress for these lands and future twinning of Highway 8 are important transportation considerations for local residents.

¹⁷Greater Bragg Creek Sub-Basin Study for the Greater Bragg Creek Area Structure Plan, Prepared by Utility Services Department, Rocky View County, November 2004

¹⁸Greater Bragg Creek Transportation Assessment, prepared by Transportation Services, Rocky View County, November 2004

6.1 UTILITIES

VISION:

It is the year 2030. All subdivision and development throughout the Plan area has been provided with safe, efficient, and environmentally sensitive water, wastewater, stormwater, and solid waste utility services. Partnerships between multiple levels of government, local developers, and area residents have resulted in the installation of a municipal water and wastewater system within the hamlet of Bragg Creek servicing area. Future subdivision outside the hamlet service area has been developed with municipally-approved water and wastewater utilities, which have limited cumulative environmental impacts. All developments have adopted an "ecological" approach to stormwater management by implementing engineering practices that preserve and maintain the land's natural capacity to accommodate surface drainage. A Bragg Creek waste transfer site provides opportunities for refuse disposal within the community and a regional solution has been implemented to accommodate the community's solid waste in a cost effective and environmentally sensitive manner.

POLICIES:

6.1.1 Potable Water and Wastewater Within the Hamlet Service Area

- a) Strategies that promote a more efficient use of water resources should be encouraged and implemented (e.g. low flush toilets and showerheads).
- b) Future subdivision and development within the hamlet shall tie into municipal water and wastewater utility systems, and will be subject to payment of the local improvement tax and all applicable water and wastewater off-site levies at the time of subdivision or development permit application.

6.1.2 Potable Water Outside the Hamlet Service Area

- a) Unless an existing communal surface supply of water is available or until a regional water utility becomes available, groundwater should be the potable water source for all subdivision and/or development outside of the hamlet service area.
- b) Multi-lot subdivisions proposing lot sizes of 4 acres or greater (on average) should provide potable water service via individual groundwater wells or communal water systems.
- c) Multi-lot subdivisions that propose lot sizes less than 4 acres (on average) outside the hamlet service area should provide potable water via a communal water treatment and distribution system that is designed with potential to connect to a future regional water utility. When small-scale multi-lot subdivisions are being proposed, consideration should be given to the impact that this requirement may have on the financial feasibility of the development.
- d) Developers who propose installation of communal water treatment and distribution systems should provide assurance that the infrastructure can be designed and constructed to maximize its utility and minimize its life cycle costs and should prepare an operational plan that clearly demonstrates the affordability of the utility for the proposed subdivision it is planned to serve.
- e) A deferred servicing agreement should be registered against each newly created parcel that is serviced by a communal water system to identify the owner's responsibility to connect to a regional water utility, should one become reasonably available outside the hamlet service area. The decision to make a regional water utility available in un-serviced parts of the Plan area should be planned by the County in collaboration with current potential customers of the utility. Special consideration should be given to issues of public health and environmental protection, and affordability of a regional water utility.

- f) Developers of new communal water systems should install meters and water saving plumbing fixtures, particularly toilets, showers, and faucets to encourage local water conservation.
- g) Operators of existing communal water systems should continue to provide safe and cost-effective water service to their members. In some cases, partnerships should be considered between the County and the owners of communal water systems to facilitate capital improvements of outdated or inefficient water treatment and distribution infrastructure (e.g. local improvement bylaws).

6.1.3 Wastewater Outside the Hamlet Service Area

- a) Multi-lot subdivisions that propose lot sizes 4 acres and greater (on average) should provide wastewater service via Private Sewage Treatment System (PSTS). The County should use the Model Process Reference document prepared by Alberta Municipal Affairs, including any future modifications to the document, to guide the installation of future PSTS within the Plan area.
- b) Developers should be required to submit geotechnical assessments, prepared by a qualified professional, to demonstrate which minimum PSTS technologies are capable of safely and effectively treating wastewater over the long term, given the soil and groundwater conditions within the subdivision and/or development area.
- c) When sustainable operation of minimum PSTS technologies is restricted by local soil and groundwater conditions, the developer should install appropriate enhanced PSTS systems that:
 - have been approved by the Province;
 - adequately address the identified limitations; and
 - ensure a sustainable method of wastewater treatment over the life of the system.
- d) The feasibility of implementing an ongoing program to monitor the long-term operational efficiencies for all PSTS systems servicing future development within the Plan area should be investigated. The monitoring program should include participation by landowners, Alberta Municipal Affairs, Calgary Health Region and the County, subject to municipal budget considerations, with its results being publicly reported. Where PSTS systems are not operating within provincial requirements, they should be upgraded at the owner's expense.
- e) No new PSTS wastewater systems shall be permitted within the 1:100 year Elbow River flood fringe and/or any riparian buffer within the Plan area, with the exception of municipally approved flood proofed sealed holding tanks on parcels existing at the time of adoption of this Plan.
- f) In order to provide a higher level of environmental protection, a more consistent and higher quality of wastewater treatment and reduced risks against contamination of raw water supplies, multi-lot subdivisions that propose lot sizes less than 4 acres (on average) should provide wastewater service via municipally approved wastewater treatment systems that encourage accountability for installation, operation and maintenance of wastewater technologies, or they should transport collected, untreated wastewater to a point where it can be safely disposed of. When small-scale multi-lot subdivisions are being proposed, consideration should be given to the impact that this requirement may have on the financial feasibility of the development.
- g) Developers who propose installation of communal wastewater collection and treatment systems should provide assurance that the infrastructure can be designed and constructed to maximize its utility and minimize its life cycle costs and should prepare an operational plan that clearly demonstrates the affordability of the utility for the proposed subdivision it is planned to serve.
- h) Communal wastewater treatment systems should be designed to connect to a regional wastewater utility.

- A deferred servicing agreement should be registered against each new title serviced by a communal wastewater utility to outline the owner's responsibilities for connecting into a regional wastewater utility should one become available. The decision to make a regional wastewater utility available, in un-serviced parts of the Plan area, should be planned by the County in collaboration with current potential customers of the utility. Special consideration should be given to issues of public health and environmental protection, and to customers' capacity to afford a regional wastewater utility.
- j) Wherever it is possible and cost-effective to do so, communal wastewater treatment systems required to service future subdivision should be designed to accommodate existing adjacent subdivisions that are currently serviced by PSTS systems.
- k) To promote an enhanced quality of treated wastewater prior to its eventual discharge, communal wastewater treatment systems should utilize the best affordable technology and operation methodology available.

6.1.4 Stormwater Management Within the Plan Area

- a) Low impact development (LID) stormwater management methods should be considered within all future subdivision and/or developments to encourage the retention of 65% native vegetation, 10% maximum impervious surfaces, and 0% effective impervious surfaces.
- b) Subject to budgetary considerations, the County shall consider the preparation of master drainage plans for the Plan area. Priority shall be given to the preparation of a drainage plan for the hamlet.
- c) Notwithstanding 6.1.4(b), the County may require that a proponent for a conceptual scheme, redesignation, subdivision, or development application prepare and implement a master drainage plan or stormwater management plan prior to additional development occurring. The parameters of the master drainage plan or stormwater management plan shall be to the satisfaction of the County.
- d) Wherever possible, natural surface drainage systems should be incorporated within all developments within the hamlet service area as opposed to "hard-engineered" stormwater control solutions.
- e) Master drainage plans should:
 - assess drainage issues within the development area;
 - assess drainage issues that may be created both upstream and downstream as a result of the development;
 - assess any potential impacts on adjacent sub-basins both upstream and downstream;
 - assess water features, facilities, drainage routes, vegetation, and topography within the entire sub-basin;
 - assess native plant species and wildlife movement corridors within the development area;
 - provide a strategy that demonstrates how potential negative impacts resulting from alterations to surface drainage patterns will be mitigated;
 - address preliminary sizing and design for stormwater control facilities; and
 - identify performance characteristics of best management practices that should be used within the development area to maintain water quality and natural drainage flows and to limit erosion and sedimentation.

- f) Developers shall be required to prepare site implementation plans that:
 - assess detailed design of stormwater control facilities and their interaction with the immediate surroundings;
 - assess rainfall-runoff models that simulate single and continuous storm events based on 1:100 year, 12-hour and 24-hour storm events;
 - provide a cost analysis that outlines capital and operational costs for all stormwater control facilities; and
 - indicate how best management practices will be observed during construction and maintenance of all stormwater control facilities.
- g) Implementation of specific landscaping techniques and best management practices for stormwater control should be encouraged to reduce the use of potable water for irrigation purposes.
- h) The use of fertilizers, pesticides, and herbicides (other than to control noxious weeds) shall be discouraged within the Plan area.

6.1.5 Utilities

- a) Shallow utilities should be located in common rights-of-way in order to maximize efficient use of land and reduce any negative off-site impacts. Utility easements should be registered at the time of subdivision to minimize service disruptions associated with line identification and maintenance.
- b) Utilities in road rights-of-way should be avoided unless sufficient right-of-way is provided to accommodate future road widening.
- c) Utility rights-of-way can be incorporated into an open space system to facilitate connection throughout the community, and should be addressed during the preparation and adoption of conceptual schemes.
- d) Wherever possible, the location of cellular or telecommunication facilities should be incorporated into a common facility or concentrated on limited sites.

6.1.6 Solid Waste Management Within the Plan Area



- a) A Bragg Creek waste transfer site should continue to be owned and operated by the County to provide opportunities for sorting, recycling, and disposal of solid waste for local landowners and to provide for enhanced recycling opportunities.
- b) Ongoing opportunities for public education programs should be encouraged, to promote an understanding of leading edge strategies designed to reduce the amount of solid waste directed into municipal landfills from the Plan area.
- c) Development of a landfill within the Plan area should be discouraged.
- d) To maximize the economy and efficiency of service delivery, demand for and service levels of solid waste management within the Plan area should be monitored.
- e) The County should explore a method that would allow for future subdivision and/or developments to contribute to the capital costs of providing solid waste disposal facilities within the Plan area.
- f) The County should investigate efficiencies and economies that could be achieved by participating in a regional solid waste management utility.

6.2 TRANSPORTATION

VISION:

It is the year 2030. Mutually beneficial relationships between the Province and other local stakeholders have continued to improve the function of the provincial transportation system within the Greater Bragg Creek area. Clear operational distinctions between municipal and provincial interests have been established regarding Balsam Avenue and Highway 22 and all other transportation linkages between the two road systems have been assessed and upgraded to provide maximum safety and efficiencies. After appropriate environmental review, technical analysis and public consultation, a partnership between the Province, the County, local developers, and area residents has resulted in the construction of a second municipal access for West and North Bragg Creek.

Over time, careful implementation of sensitive municipal road design standards has preserved and maintained the natural beauty and character of Greater Bragg Creek. Opportunities for future subdivision and development have contributed to a continual improvement to the safety and integrity of the municipal road network. In accordance with the County's business plan and work program, municipal roads are upgraded and maintained on an ongoing basis to sustain their operating efficiencies. A community trails system has been developed as a local transportation alternative with key staging points for trail users developed throughout the Plan area. A long-term strategy has been implemented to enhance parking provisions as required by local commercial developments.

POLICIES:

6.2.1 The Provincial Transportation System

- a) Preserving the safe and efficient operation of the provincial transportation system should be a priority when evaluating future subdivision and/or development within the Plan area.
- b) Close working relationships between the Province, the County, local developers, industry representatives, and area residents should coordinate any required short and long-term improvements to the provincial transportation system.
- c) A traffic impact assessment should be prepared in support of subdivision and/or developments that impact the provincial transportation system. The assessment should include:
 - an evaluation of anticipated changes to traffic volumes and types;
 - an assessment of their potential cumulative impacts on the provincial transportation system; and
 - recommendations regarding any upgrades to key intersections between municipal and provincial roads.
- d) Subject to municipal budget considerations, the County should encourage a partnership with the Province and the Tsuut'ina Nation Reserve #145 to develop appropriate short and long-term strategies to improve the design and function of the intersection between Balsam Avenue, Highway 22, and Highway 758.
- e) Additional rights-of-way for highway widening purposes should be acquired through subdivision and/or development of lands fronting onto Highway 22.
- f) The County should investigate the merit of acquiring jurisdiction over the portion of Highway 758 (White Avenue) located within the hamlet.
- g) The County should partner with the Province to monitor the ongoing operational efficiency of the Balsam Avenue Bridge.

6.2.2 The Municipal Road Network (existing conditions)

- a) Protection and maintenance of healthy riparian environments, viable ecosystems and natural habitats should be a priority when improvements are made to the municipal road network.
- b) Ongoing improvements and/or maintenance to the existing municipal road network should be implemented through the County's road program and maintenance initiatives.
- c) Maintenance activities within municipal rights-of-way should follow best management practices.
- d) All existing municipal road rights-of-way should meet the minimum requirements of the road classification system.

- e) Where required, the County should acquire additional rights-of-way for municipal roads through the subdivision process.
- f) In some cases, the County should purchase additional rights-of-way from private landowners to facilitate improvements to the municipal road network.
- g) Street lighting within municipal rights-of-way should be discouraged throughout the Greater Bragg Creek area (with the exception of the hamlet commercial core).
- h) On-street parking shall be discouraged within the Plan area.

6.2.3 The Municipal Road Network (when future subdivision and/or developments are proposed)

- a) Protection and maintenance of healthy riparian environments, viable ecosystems, and natural habitats shall be a priority when additional municipal roads are developed.
- b) Developers should prepare traffic impact assessments to evaluate anticipated immediate and/or cumulative impacts to the municipal road network either in the vicinity of or downstream of all proposed subdivision and/or developments within the Plan area.
- c) Developers should pay all costs associated with the construction of local roads that provide direct access to new subdivision and/or developments.
- d) The County should coordinate the road program and maintenance initiatives so that improvements to collector roads can be implemented in concert with new subdivision and/or developments within the Plan area.
- e) Construction activities within all municipal rights-of-way should follow best management practices.
- f) The frequency and location of individual accesses onto collector roads should be limited to maintain safe traffic flow and vehicle turning movements.
- g) New subdivision and/or developments should accommodate at least two points of access/egress.
- h) New subdivisions with cul-de-sac local roads should accommodate an emergency access to an alternate local road via an all-weather surface that is maintained year-round.
- i) New subdivision and/or developments should provide safe and efficient access to all building sites for emergency service apparatus and equipment.
- j) Implementation of alternative local road design standards may be considered to access future subdivision and/or developments within the Plan area provided that vehicle movements (including emergency service vehicles and school buses) can be safely and efficiently accommodated and the municipal rights-of-way are able to sufficiently accommodate water, wastewater, and/or stormwater infrastructure.

6.2.4 Additional Municipal Access/Egress for North and West Bragg Creek

- a) An additional municipal access/egress shall be constructed to lands in West and North Bragg Creek.
- b) A committee of staff and public stakeholders shall be established to investigate all aspects of providing additional municipal access/egress, including the development of an appropriate funding formula. Funding formula may involve a partnership between the Province, County and local developers.
- c) Construction of an additional municipal access/egress should proceed following appropriate environmental study, technical review, and public consultation.

- d) All possible options for the alignment of an additional municipal access/egress road, including those that would require right-of-way through adjacent jurisdictions, should be investigated.
- e) A preferred alignment for an additional municipal access/egress road should:
 - minimize environmental impacts;
 - facilitate alternate access/egress for residents in North and West Bragg Creek by bypassing the Balsam Avenue Bridge/Wintergreen Road intersection;
 - wherever possible, utilize existing statutory road allowances.

6.2.5 The Municipal Road Network (within Commercial Areas)

- a) Developers should prepare a traffic impact assessment in support of future subdivision and/or development within the commercial areas to evaluate both vehicular and pedestrian circulation patterns and provide recommendations respecting necessary upgrades to both municipal and provincial road systems.
- b) On street parking should not be permitted within the hamlet commercial core.
- c) A master parking study shall be prepared, subject to municipal budget considerations, to identify the need for and appropriate locations of public parking within commercial areas, taking into consideration existing streetscapes, lot configurations and vegetation.
- d) Additional public parking areas should be:
 - located in close proximity to existing commercial areas;
 - designed to incorporate pedestrian access;
 - developed in an attractive aesthetic manner; and
 - provided with appropriate lighting and landscaping to enhance their public safety.
- e) Provision of additional parking should accommodate both resident and non-resident users of commercial areas.
- f) Mechanisms that ensure that parking actually is available for public, as opposed to customer use should be identified.
- g) Parking behind the Bragg Creek shopping centre should be upgraded as a part of a community revitalization program to encourage patrons and/or staff to park there.
- h) The Land Use Bylaw should be amended to increase the minimum number of parking stalls required by all new developments within commercial areas.
- i) The contribution of "cash-in-lieu of parking" should be investigated as a mechanism to finance the development of additional public parking areas required by new commercial developments.
- j) Funding the acquisition of lands for additional parking could potentially occur through creation of a business revitalization zone.
- k) Installation of low-level pedestrian-scaled street lighting may be considered within the hamlet's commercial areas.

6.3 TRAILS

VISION:

It is the year 2030. A comprehensively planned, all-season community trails system that accommodates efficient pedestrian and non-motorized transportation alternatives exists throughout the Greater Bragg Creek area, also providing key connections with pathways and recreational amenities that are located outside the Plan area. The trails system takes advantage of natural vistas and vantage points to provide enjoyable and multi-use interpretive experiences for local residents, while at the same time, improving the safety, health and wellbeing of the community. A well-defined pathway hierarchy has provided for the development of a trails system that safely accommodates a variety of users (e.g. walkers, joggers, bicyclists, in-line skaters, cross-country skiers, etc.) without detracting from the area's rural character and environmental sensitivities. In consideration of the community's rural setting and ranching heritage, equestrian trails have been incorporated wherever possible. Trails implementation mechanisms, over time, have provided for County ownership and maintenance in partnership with the Greater Bragg Creek Community.

POLICIES

Development of a community trails system is a priority for the community. Throughout the Plan preparation process, a sub-committee of the steering committee volunteered significant time and energies to develop a hierarchy of pathway connections and a set of principles to guide development of trails within this hierarchy. This work gained almost universal community support. The hierarchy and trail development principles are included here, as a component of the ASP.

The Greater Bragg Creek Trails System should encompass a hierarchy of four pathway connections shown conceptually on Figure 8 – Greater Bragg Creek, Conceptual Trails Network and Figure 9 – Greater Bragg Creek, Conceptual Trails Network (Hamlet of Bragg Creek Detail). It is recognized that the alignment of a number of segments of the conceptual trail network are shown across and/or through private lands. In absence of these rights-of-way being dedicated as public lands through the subdivision process, or the acquisition by the County of these rights-of-way through purchase or the implementation of some other form of consent with the private landowners, sections of the conceptual trail system may not be able to be developed as identified, and alternate alignments will need to be considered.

6.3.1 Regional Trails

- follow primary transportation corridors and provide for pedestrian and non-motorized commuter connections between the hamlet and the surrounding areas;
- connect local community, social, and recreational amenities as well as providing linkages between the Greater Bragg Creek area and adjacent recreational areas;
- are typically designed as multi-use connections and normally contain a hard-surfaced pathway for walkers, in-line skaters, and cyclists;
- wherever possible, contain a separated soft-surfaced pathway for equestrian users, joggers, and cross-country skiers;
- typically contain a hard surface 2.5 3.0 metres in width (usually asphalt) and a soft surface 1.0 2.0 metres in width (usually gravel or shale) with design gradients not normally exceeding 8%; and
- are encouraged to be used by all types of users.

6.3.2 Community Pathways

- link existing (and future) subdivisions with the regional trails, and wherever possible, link residential subdivisions directly together;
- typically contain a hard or soft surface a minimum of 1.2 – 1.5 metres in width and generally have design gradients under 10%;
- may use low-volume and low-speed internal subdivision roads; and
- do not generally encourage use by equestrian users.



6.3.3 Natural / Interpretive Walks

- provide access to local historic and/or culturally significant points of interest;
- provide opportunities for passive recreation along routes of scenic, natural, historic, geologic, or water-oriented interest;
- are not intended for commuting;
- typically contain a soft surface 0.5 0.6 metre in width and use local materials for surfacing that best fit the immediate surroundings. The design gradients normally match existing ground contours to minimize disturbance to the natural environment; and
- do not generally encourage use by those users having potential to negatively impact lands with identified environmentally sensitive areas.

6.3.4 Future Trail Linkages

- conceptually illustrate linkages that have been identified for implementation at a later date; and
- will have their pathway hierarchy established at such time the linkages are actually developed;
- are subject to municipal budgetary considerations.

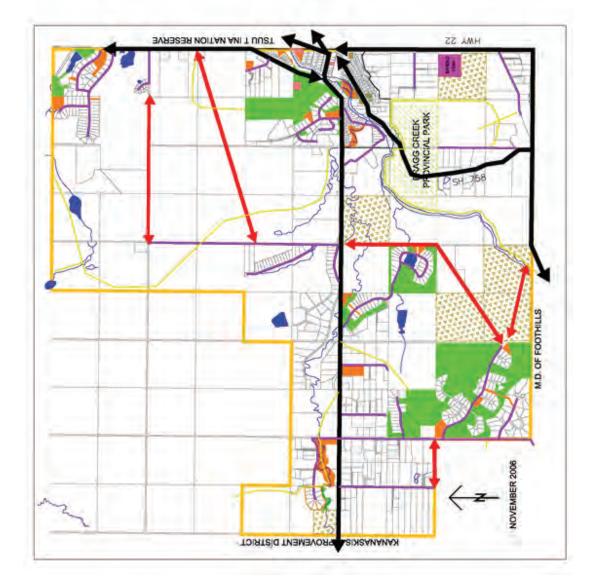
The following principles should be employed in the development of the Greater Bragg Creek Trail System.

- a) The trail system should:
 - emphasize recreational and cultural opportunities by providing access for a variety of pedestrian and non-motorized activities (e.g. hikers, cyclists, inline skaters, cross-country skiers, equestrians, joggers, naturalists, etc.). Motorized vehicles should not be permitted to use the trail system;

- provide safety for trail users by separating vehicular and non-vehicular activities;
- provide access to sporting facilities and other outdoor activities; and
- provide access to areas that offer interpretive and natural experiences (e.g. environmental reserves).
- b) The trail system should link:
 - the entire community together (i.e. residential, commercial, and agricultural areas). Wherever possible, residential subdivisions accessed by municipally-owned internal subdivision roads should be linked directly together;
 - the hamlet with lands west of the Elbow River via a pedestrian bridge crossing;
 - the hamlet with Banded Peak Elementary School;
 - the community to local historical sites (e.g. local history boards, the Roundhouse, old schools, the Trading Post, the Hostel Trail Loop, historic Pioneer lands, the Tsuut'ina First Nation, etc.) and existing and future local community and recreational amenities (e.g. community centres, churches, museums, art galleries, etc.);
 - local pathways with those in other communities (e.g. Redwood Meadows, Springbank, Calgary, Canmore), providing for connections between the jurisdictions that are safe and beneficial to all affected jurisdictions; and
 - to other adjacent recreational amenities (e.g. Bragg Creek Provincial Park, Kananaskis Country, TransCanada Trail, etc.).
- c) Staging points with appropriate parking areas should be established, subject to municipal budget considerations, for trail users at key locations throughout the Plan area.
- d) Looped pathway connections should be encouraged.
- e) Construction of the trails system should generally be guided by a phased implementation strategy that begins with the regional trails first, the community pathways second and the nature/ interpretive walks third. Development of the trails system should generally begin in the hamlet, extending outward into the adjacent areas. Opportunities to develop "out of sequence" should be considered, provided that any new trail eventually connects with an existing trail and with the proposed trail network. Alternatively, opportunities for an appropriate pathway alignment to be acquired, as an municipal reserve dedication, should be considered, even if out of sequence.
- f) All sources of land access and rights-of-way should be considered when determining trail alignments. At Council's discretion, the trail system should utilize reserve lands, municipally-owned land, and road allowances for trail development.
- g) Retaining options that may provide for pathway alignments should be a priority for the County. Existing and future municipal reserve lands and statutory road allowances should be retained and considered for present and future trail alignments.
- h) Proposed trails alignments within provincial road rights-of-way are discouraged.
- i) Wherever possible, trail alignments should parallel the municipal road network.
- j) Trail alignments may be considered within municipal road rights-of-way provided they do not compromise the safety and operational efficiencies of the road network.
- k) Implementation of pedestrian crosswalks should be considered at key intersections throughout the Plan area.

- The environmental integrity of the Elbow River, the Bragg Creek, other natural water features and other environmentally sensitive areas should be respected. Trail construction should result in "no net loss" within environmentally sensitive areas.
- m) Development of trails may be considered along the periphery of riparian areas provided that trail construction can be proven to have minimal impact and use of the trail will not negatively impact the integrity of the riparian lands. These trails should be sensitively designed, curvilinear, low impact pedestrian-oriented trails that respect the lay of the land and should not interfere with the privacy of existing adjacent landowners.
- n) Opportunities for partnerships between various levels of government, industry and local community groups should be encouraged to promote the construction of local trails.
- o) Implementation should be locally driven and utilize cooperative partnerships between the local recreation board; various community groups; developers; and municipal, provincial, and federal governments.
- p) Subject to municipal budget considerations, the County should own and maintain the trail system, rather than independent parties. It is recommended that the County consider the creation of a parks and recreation department to ensure trails are developed and maintained to a high standard.
- q) A Greater Bragg Creek Trails Association (GBCTA) should be created within the community to provide input to the local recreation board and the County with respect to the development of the trails system. Through the circulation of subdivision and development proposals to the local recreation board, an opportunity will be provided for comment and consultation regarding the trail system's requirements.
- r) The County, the GBCTA, in consultation with the local recreation board (and others) should coordinate efforts regarding planning, funding, implementation and maintenance of the trails system.
- s) The Greater Bragg Creek residents/landowners should help support the trails system through locally based funding mechanisms (e.g. community recreation levy, local fundraising, charitable donations, etc.)
- t) Whenever required under the provisions of the MGA, new subdivisions within the Greater Bragg Creek area should contribute to development of the trails system through the dedication of land as municipal reserves.
- u) Individual developers are expected to construct portions of the trails system within their project, as a requirement of the subdivision and development processes. Developers should be required to provide financial securities to ensure pathway construction complies with municipal standards.
- v) Individual developers should be encouraged to consider development of regional trails that may be external to their individual projects.
- w) The trails system should be developed using a common architectural theme (e.g. bear-proof garbage cans, uniform benching, directional, interpretive, and informational signage, acknowledgment plaques, etc.).
- x) Community groups may construct portions of the trails system in coordination with the County, the local recreation board, the GBTCA, and others.







7.0 FUTURE PHYSICAL FORM

Future development within the Plan area will be for agricultural, residential, or business purposes. The purpose of this section of the Plan is to ensure that future development occurs in an environmentally sensitive manner. Existing agricultural operations and new agricultural uses with minimal off-site impacts and responsible farming practices will be supported: sensitive redevelopment of adjacent agricultural lands to non-agricultural uses will be encouraged. However, as a result of relatively expensive land values, opportunities for the continuation of existing or introduction of new agricultural land uses are being restricted and, over the long term, it is likely that agricultural development will be supplanted by country residential development as the dominant land use within the Plan area.

Future residential development will occur throughout the Plan area and, to varying degrees, future business development will occur either within or outside of the hamlet. To ensure that development respects the natural environment and is contemplated in a holistic and comprehensive manner, conceptual schemes will be required to guide future land use changes and subdivision within predetermined boundaries. Development of a hamlet expansion strategy will be required, prior to significant subdivision, on lands identified for expansion of the hamlet.

7.1 CONCEPTUAL SCHEMES

In order to sensitively plan future development in a holistic manner and successfully integrate it into the rural character of the Plan area, conceptual schemes will be required to guide future redesignation and subdivision. Conceptual schemes are considered by the County to be an important component of long range planning and are intended to establish a plan and rationale for future development, based on a comprehensive analysis of the site opportunities and constraints.

Conceptual schemes must be adopted by Council and will be appended to this Plan (See Section 10.1.3 for Conceptual Schemes).

POLICIES

- a) Conceptual schemes, prepared to the satisfaction of the County, should be required to guide future redesignation and subdivision decisions. Where appropriate and required to address the integration of the proposed development with adjacent lands, the conceptual scheme may be required to encompass lands that are outside of the area to be redesignated and/or subdivided.
- b) Within the Plan area, redesignation and/or subdivision may proceed without a conceptual scheme when agricultural development is proposed in conformity with the provisions of this Plan. See section 5.3 for Agriculture.
- c) Within residential infill areas, outside of the hamlet, conceptual schemes should be required within predetermined conceptual scheme boundaries, as defined in Figure 13. Notwithstanding these defined conceptual scheme boundaries, future conceptual schemes boundaries may be altered without amendment to this Plan, at the discretion of Council, provided that
 - the alternate conceptual scheme area is comprehensive in nature,
 - the implications of development proceeding within an alternate conceptual scheme boundary (including implications to those areas excluded from the original conceptual scheme boundaries) have been examined, and
 - the County determines that any on-site or off-site planning issues have been resolved pursuant to the provisions of this Plan.

- d) Notwithstanding the above policy, redesignation and subdivision that is proposed for nonagricultural purposes may proceed in the absence of a conceptual scheme when the following criteria are met:
 - direct road access is available,
 - one (1) lot is being created from a parcel whose boundaries are defined at the time of adoption of this plan,
 - the proposed lot is 2 acres or greater in size, and
 - the creation of the new lot will not adversely affect or impede future subdivision of the balance lands.
- e) It is not intended that a parcel created under this policy can be re-subdivided using these criteria to create any additional single lots in the absence of a conceptual scheme. Within new residential areas, outside of the hamlet, a conceptual scheme should be required to support all redesignation and/or subdivision applications.
- f) A conceptual scheme should include, but not be limited to:
 - a future land use scenario including lot design and configuration, parcel size and density, on and off-site visual impacts, open space connections, servicing strategies, and compatibility with adjacent land use;
 - a strategy for the integration of the proposed development with existing and adjacent development, including the preservation or improvement of existing sight lines. Within undisturbed natural areas, a visual impact assessment should be undertaken to identify and mitigate the potential impact of the proposed development on existing residential subdivision;
 - development phasing, illustrating full build-out;
 - population densities and projections;
 - a biophysical assessment that identifies:
 - the current vegetative biodiversity among the major plant communities of the site with respect to area and age class composition, as they existed, and were recorded, in the Alberta Vegetation Inventory (AVI) in 2001,
 - a simulation of the future vegetative biodiversity that will exist at the completion of development, with an aim to not reduce the current biodiversity to any less than 50% or increase it to more than 200% of the range that exists at the time of development,
 - riparian areas associated with all watercourses and wetlands,
 - existing wildlife movement corridors and mechanisms to protect them from and integrate them with the proposed development, and
 - areas with development constraints due to steeper or unstable slopes;
 - an environmental impact assessment to identify significant environmental resources and appropriate strategies to mitigate any potential negative impacts;
 - identification of all lands to be dedicated including, but not limited to, public utility lots, municipal reserves, and, if required, environmental reserves;

- provision of open areas for the purposes of habitat preservation, protection of wildlife movement corridors, land use compatibility buffers, archaeological or historical sites, regional best management practices, transportation interfaces, and/or community trail system alignments. The physical location of these areas within the subdivision should address relationships and linkages with lands beyond the conceptual scheme area in order to promote integrated connections between development areas.
- Utility servicing strategies, including identification of rights-of-way required for future tie-in to a regional municipal system as and when available. At a minimum, these strategies will address the following:
 - assurance that communal water and/or wastewater systems, where required, can be designed and constructed to maximize system utility and minimize system life cycle costs, including preparation of an operational plan that clearly demonstrates the affordability of the utility for the proposed subdivision it is planned to serve,
 - examination of the feasibility and cost effectiveness of expanding communal wastewater treatment systems to accommodate existing adjacent subdivisions that are currently served by Private Sewage Treatment System (PSTS),
 - in developments to be serviced by PSTS, an assessment, prepared by a qualified professional, of which minimum PSTS technologies are capable of safely and effectively treating wastewater over the long term, given the soil and groundwater conditions within the subdivision and/or development area,
 - development/building requirements to conserve water resources (e.g. low flush toilets and showerheads),
 - implementation of low impact development (LID) methods to encourage the retention of 65% native vegetation, 10% maximum impervious surfaces, and 0% effective impervious surfaces,
 - a master drainage plan and/or site implementation plan including possible alternatives for best management practices for stormwater management (See Section 6.1.4 for Storm Water Management in the Plan area),
 - specific landscaping techniques and best management practices for stormwater control to reduce the use of potable water for irrigation purposes, and
 - an assessment of the projected generation of solid waste and the impact that its disposal will have on existing facilities within the Plan area.
- an assessment of traffic impacts that:
 - evaluates anticipated changes to traffic volumes and types,
 - evaluates anticipated immediate and/or cumulative impacts to the municipal road network either in the vicinity of or downstream of all proposed subdivision and/or developments within the Plan area,
 - within the commercial areas, evaluates both vehicular and pedestrian circulation patterns and provides recommendations respecting necessary upgrades to both municipal and provincial road systems, and
 - where appropriate, assesses potential cumulative impacts on the provincial transportation system; and provides recommendations regarding any upgrades to key intersections between municipal and provincial roads;

- provision for construction of portions of the identified community trail system within the proposed development;
- a landscaping plan that:
 - integrates new development and provides for transitional treatment between different or incompatible land uses or parcel sizes,
 - addresses adjacency to existing agricultural and/or environmentally sensitive areas by providing a buffer and reducing edge effects,
 - addresses adjacency to major municipal or provincial roadways, mitigating potential conflicts, and
 - maximizes the retention of existing desirable vegetation;
- architectural controls to guide structural style, building materials and structural siting. In the case of proposals for commercial and/or public buildings, Crime Prevention Through Environmental Design principles should be incorporated into building design and site layout;
- road names incorporating neighbourhood themes or heritage names;
- assessment of archaeological or historical sites;
- assessment of the need for community support and leisure, protective, and emergency services;
- a wildfire risk assessment, prepared by a qualified professional, that examines:
 - existing vegetation and topography to determine the site's susceptibility to wildfire,
 - location of existing/proposed water bodies within the area capable of providing a supply of water for fire suppression purposes,
 - proposed subdivision layout, density, and development phasing, to recognize and mitigate susceptibility to wildfire risks (e.g. appropriate building spacing, reduced cul-de-sac lengths, appropriate clearing of building sites, deck enclosure restrictions, etc.),
 - local traffic circulation patterns, both existing and proposed, to determine the availability of safe access for fire and other emergency equipment and apparatus,
 - proposed architectural controls within the subdivision designed to encourage fire suppression within each new building site (e.g. appropriate roofing and siding materials, landscaping, interior/exterior sprinklers, etc., mandatory early warning devices), and
 - implementation of measures to enhance fire protection capabilities during construction periods when fire hazards are highest;
- input from all directly and indirectly affected landowners within and adjacent to the conceptual scheme boundary throughout the preparation of the conceptual scheme, including a minimum of one open house for the proposal;
- support for the proposed conceptual scheme by the majority of landowners within the conceptual scheme boundary; and
- any other matter deemed necessary by the County.

7.2 FUTURE PHYSICAL FORM IN THE HAMLET

HAMLET RESIDENTIAL DEVELOPMENT

VISION:

It is the year 2030. The hamlet of Bragg Creek continues to be an attractive place to live where residential development harmonizes with the natural environment. The introduction of municipally-owned water and sewer services has resolved a long-standing threat of contamination for local groundwater supplies. Further subdivision of existing larger lots has accommodated additional residential development within the hamlet, however, the demand for housing has resulted in the expansion of the hamlet to the south, between Highway 22 and Bragg Creek Provincial Park, up to the Banded Peak School site. Residential development has continued to be precluded from lands lying within the floodway of the Elbow River, and risk to development within the floodplain has been mitigated through the implementation of appropriate flood-proofing measures.

The form of residential development has changed from exclusively single family to include low-density multi-family units in selected areas where appropriate building form and siting provides for unobtrusive integration with the landscape. Comprehensively designed residential developments now occupy prominent sites such as the Elkana Ranch Lands and the Herron property and secondary suites serve to integrate residential and commercial development further. These changes have provided much needed affordable accommodation and housing that is better suited to an aging population that does not want to be displaced from the community. Strong development and architectural controls have ensured that each development or redevelopment project enhances the visual character of the hamlet, allowing for unique design statements but ensuring the retention of trees, use of high-quality natural building materials, and small scale visually articulated residences.

POLICIES

7.2.1 General Residential Development Policies within the Hamlet

- a) All new residential development, redevelopment, and residential additions greater than 50% of the gross existing floor area shall be required to install fire protection measures in accordance with the Alberta Building Code.
- b) Future subdivision/development should limit the removal of existing vegetation to accommodate additional building sites while encouraging implementation of Fire Smart design principles.
- c) Notwithstanding other provisions in the Area Structure Plan, no residential subdivision and development shall be permitted within the floodway of the Elbow River, as identified by the Government of Alberta. Residential subdivision and development may occur within the flood fringe of the Elbow River if all relevant requirements are met, to the satisfaction of the Government of Alberta and the County.
- d) New residential development within the hamlet should conform to the "Hamlet of Bragg Creek Design Standards," which forms Appendix A of this Plan.

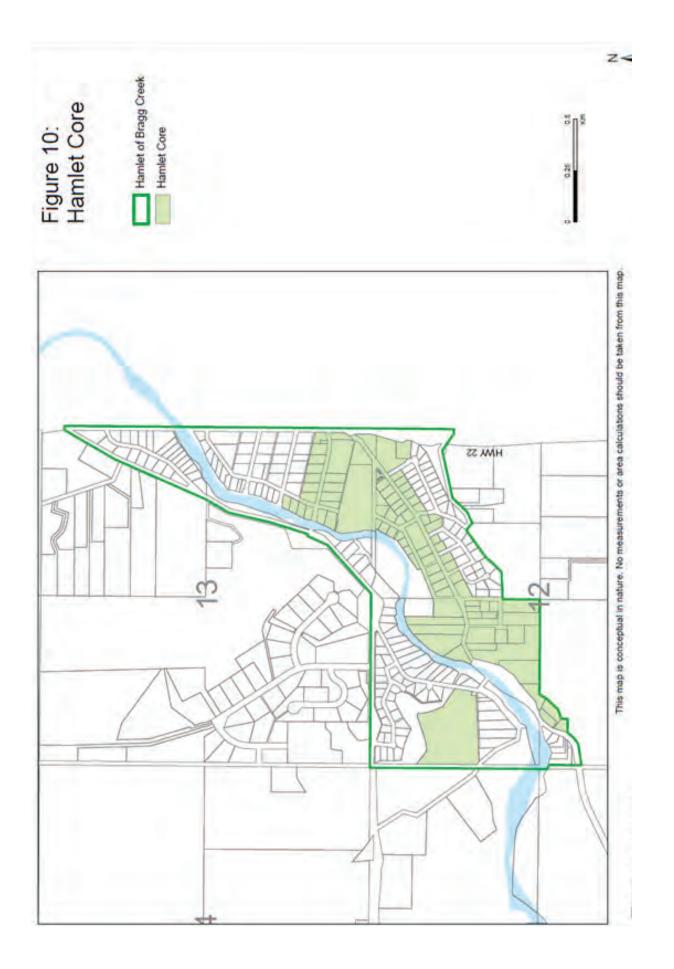
7.2.2 Single Detached Residential Development/Redevelopment

- a) Single detached residences should continue to be the predominate form of residential development within the hamlet. Other forms of residential development, such as duplex, semidetached, and accessory dwelling units should be supported where appropriate in the hamlet.
- b) All new dwellings and dwelling units shall connect to municipally-owned water and sewer services.

- c) Residential subdivision, to a minimum lot size of 0.46 acres (±1,858 sq. m), shall be supported within the hamlet boundary if the following criteria are met:
 - The proposed site is fully serviced by a piped water and wastewater system;
 - The proposed access is acceptable to the County; and
 - There are no physical constraints to subdivision.
- d) Development of accessory dwelling units should be supported if the following criteria are met:
 - The proposed lot is at least 0.46 acres (±1,858 sq. m) in size;
 - The proposed access is acceptable to the County;
 - There are no physical constraints to the proposed accessory dwelling unit; and
 - The proposed accessory dwelling unit meets the Land Use Bylaw requirements.
- e) Residential subdivision to a minimum lot size of \pm 0.23 acres (929 sq. m) may be considered within the hamlet boundary, if the following criteria are met:
 - The proposed site is fully serviced by a piped water and wastewater system;
 - The proposed access is acceptable to the County;
 - There are no physical constraints to subdivision;
 - Considerations for building placement, and tree retention and placement, to the County's satisfaction.

7.2.3 Comprehensive Residential Development

- a) Lands proposed for multi-residential development within the hamlet shall be located in the hamlet core as identified in Figure 10, and shall be supported by a conceptual scheme and/or master site development plan, to be adopted by Council and appended to the Area Structure Plan.
- b) The conceptual scheme and/or master site development plan for multi-residential development within the hamlet should include the following:
 - Servicing strategy;
 - Traffic impact assessment, including cumulative impacts to the hamlet and off-site infrastructure;
 - Stormwater management;
 - Pedestrian pathways, and open spaces connection;
 - Demonstrated compliance with the Hamlet of Bragg Creek Design Standards, which form Appendix A of this Plan.
 - Summary of adjacent landowners consultation; and
 - Any other assessment required by unique area conditions, including but not limited to the requirements as listed in Section 7.1 of the Area Structure Plan, to the satisfaction of the County.



GREATER BRAGG CREEK

7.2.4 Mixed-Use Commercial/Residential Development

- a) Residential dwelling units are encouraged as an accessory use within the commercial core, once municipal water and sewer servicing is available within the hamlet.
- b) Residential dwelling units in mixed-use situations should have a separate connection to municipal water and sewer services.
- c) All residential dwelling units in mixed-use situations should have a separate entrance accessible from the exterior of the building.
- d) It is recommended that the Land Use Bylaw include two parking spaces for each residential unit in a mixed-use development.

7.2.5 Hamlet Residential Expansion

- a) Expansion of the hamlet boundaries is encouraged within that portion of the South Policy area that lies between Highway 22 and Bragg Creek Provincial Park, north of the Banded Peak School site (the hamlet expansion lands), as defined in Figure 11.
- b) Once a funding commitment and a timetable for development of municipal water and wastewater systems to service the Hamlet Expansion area, the County, subject to budget considerations, should undertake preparation of a comprehensive land use strategy (hamlet expansion strategy) to accommodate hamlet expansion within these lands. Until this strategy is prepared, future subdivision should be discouraged. In some cases, future subdivision may be supported provided it can demonstrate that it would not negatively impact the potential for future development of hamlet-oriented transportation, servicing, open space connections, and land uses.
- c) The hamlet expansion strategy should:
 - accommodate an appropriate range of residential and institutional land uses within the hamlet expansion lands;
 - provide for an appropriately staged transition from country residential to hamlet land uses in accordance with the logical extension of transportation and utility services;
 - establish controls for the rate of development of the hamlet expansion lands. These controls should identify appropriate development phasing and conditions that should exist prior to development proceeding in a subsequent phases;
 - accommodate the logical extension of transportation connections into the hamlet expansion lands (both from the hamlet and Highway 22);
 - accommodate extension of utility services and open space connections from the hamlet into the hamlet expansion lands;
 - accommodate appropriate transitioning and buffering between the hamlet expansion lands and the Bragg Creek Provincial Park; and
- d) The hamlet expansion strategy shall be developed through a process of public consultation to ensure all community issues have been addressed.



Figure 11: Lands for Hamlet Residential Expansion

7.3 HAMLET COMMERCIAL DEVELOPMENT

VISION:

It is the year 2030. The hamlet of Bragg Creek has an expanded, yet vibrant commercial core that attracts residents and visitors on a year-round basis. It is known as a place to go for a friendly and unique shopping experience. The commercial core lies at the centre of a thriving residential community, reflecting a consistent, natural, somewhat elegant, country atmosphere that complements adjacent residential development and is in harmony with the natural environment within which the hamlet is located.

Comfortable and attractive public spaces invite people to relax and extend their shopping/dining experience throughout the day and into the evening. Pathways that interlace the shops and provide for ease of circulation are attractively lit to increase the evening ambience, while protecting views of the night skies that continue to be part of the signature of the hamlet and surrounding area.

Commercial development within the hamlet has continued to occur in response to market demand, maintaining a concentrated commercial core with its unique character and small town atmosphere. Expansion of the commercial core as it was in 2005 has occurred through infilling and redevelopment of adjacent residential lands in a logical and sequential manner, guided by development standards and architectural controls that have ensured that new development harmonizes with existing development, the natural environment, and with adjacent residential areas.

Overnight accommodation, available in either bed and breakfast homes or modestly scaled country inns, is an integral component of the viability of commercial businesses in the hamlet, providing potential for spin off business to other commercial establishments that are dependent upon walk up traffic. As they do outside of the hamlet, home-based businesses provide opportunities for small entrepreneurs to gain a foothold in the regional marketplace before relocating to the hamlet's commercial core.

POLICIES

7.3.1 General Commercial Policies

- a) Commercial development in the form of bed and breakfast homes shall:
 - be reviewed by the development authority annually to ensure that these businesses do not dominate the primary residential use of the dwelling; and
 - in all other aspects, be governed by relevant policies in the Land Use Bylaw.
- b) Vacation homes shall not be allowed to operate within the hamlet of Bragg Creek.
- c) Home-based businesses with limited outside storage should be encouraged within the hamlet, and should take into consideration the Hamlet of Bragg Creek Design Standards.

7.3.2 Commercial Core Policies

a) With the exception of bed and breakfast homes, and home-based businesses, commercial, institutional, and mixed-use development should be located in the hamlet core, as defined in Figure 10.

Commercial, institutional, and mixed-use development located outside the hamlet core may be considered, subject to:

- servicing availability;
- compatibility and transition into surrounding land uses;
- potential traffic impacts; and
- any other assessment required by unique area conditions, to the satisfaction of the County.
- b) New commercial, institutional, mixed-use, and multi-residential development within the hamlet shall conform to the Hamlet of Bragg Creek Design Standards, which form Appendix A of this Plan.

7.3.3 Desirable Uses in the Hamlet Core

Recognizing the desire to preserve the hamlet's unique character and small town atmosphere, the following uses should be supported in the hamlet core:

- Animal health care services;
- Arts and cultural centre;
- Amenity spaces for pedestrian use;
- Banks or financial institutions;
- Child care facilities;
- Convenience store;
- Dwelling unit, ancillary and subordinate to the principal business use;
- Drinking establishment;
- Farmers market;
- Government services;
- Grocery store, local;
- Health care services;
- Home-based businesses, type I and II;
- Live/work unit;
- Mixed-use building and developments;
- Museums;
- Offices;
- Outdoor café;
- Overnight accommodation (e.g. Bed and breakfast home, motel, hostel, hotel, lodging houses, and country inns);
- Parking areas and structures;
- Patio, accessory to the principle business use;

- Personal service businesses;
- Post offices;
- Public buildings;
- Public markets;
- Public parks;
- Restaurants;
- Residential care facility;
- Retail store (e.g. antique shops, art galleries, and boutiques);
- Retail garden centre;
- Religious assembly;
- Senior housing;
- School or college, commercial;
- Signs;
- Shopping centre, local;
- Special events;
- Specialty food store;
- Supported/assisted living facility;
- Tourism uses/facilities, general;
- Tourism information services and facilities; and
- Any use that is similar to the uses described above that also meets the intent of the Greater Bragg Creek Area Structure Plan and the Bragg Creek Revitalization Plan

7.3.4 Undesirable Uses

Recognizing the desire to create and to maintain a pedestrian friendly environment, the following uses should not be supported in the hamlet core:

- Amusement and entertainment services;
- Auctioneering services;
- Automotive, equipment and vehicle services;
- Outdoor storage, truck trailer;
- Restaurant, drive through;
- Truck trailer services; and
- Warehouse stores.

GREATER BRAGG CREEK

7.3.5 Overnight accommodations

Overnight accommodation, including bed and breakfast home, motel, hostel, hotel, lodging houses, and country inns, shall be in compliance with the Hamlet of Bragg Creek Design Standards, which form Appendix A of this Plan (See Appendix A for Hamlet of Bragg Creek Design Standards).

7.4 FUTURE PHYSICAL FORM IN THE GREATER BRAGG CREEK AREA

RESIDENTIAL DEVELOPMENT OUTSIDE OF THE HAMLET

VISION:

It is the year 2030. Those portions of the Greater Bragg Creek area outside of the hamlet continue to be desirable places for residential subdivision developed in harmony with the natural environment.

Additional residential development has proceeded in a form and density that maintains the area's rural aesthetic and low-density character. In infill residential areas, additional residential development has proceeded with parcel densities and configurations that are consistent with existing adjacent subdivisions. In new residential areas, innovative "clustered" subdivision designs with smaller individual parcel sizes, which limit its resulting footprint on the landscape, and maximum open spaces have been implemented.

POLICIES:

7.4.1 General Residential Policies

The evolution of local subdivision and its resulting settlement pattern within the Plan area outside of the hamlet can be characterized by one of three categories: built out residential areas, infill residential areas and new residential areas. Lands within each of these three areas are illustrated on Figure 13.

Built out residential areas consist of existing planned subdivisions, with parcels that are 2 acres in size (on average), that were comprehensively developed and are considered "end subdivisions" without potential for further subdivision. Further subdivision can occur where parcels currently have a land use designation that allows subdivision: otherwise, no further subdivision is allowed.

Infill residential areas refer to parcels that have already experienced subdivision greater than eight lots per quarter. These areas typically contain a subdivision pattern that appears somewhat incrementally planned with parcels typically ranging in size between 4 and 20 acres. Future subdivision densities in infill residential areas should be calculated on the basis of a ratio of lots per acre of gross developable area (See Section 7.4.3 for Gross Developable Area – An Explanation and Example).

New residential areas contain larger tracts of land that are generally being used for a mix of agricultural uses. In most cases, these lands are unsubdivided quarter sections; in others, they represent the remainder of a quarter where some subdivision, generally of a comprehensive nature, has already occurred. Future development in these areas should follow policies established in this Plan to create and protect open space (See Section 7.4.4 for New Residential Areas).

The general residential policies pertain to future residential development within either infill or new development areas.

- a) Future subdivision should:
 - be evaluated based on the land's ability to accommodate additional development and not negatively impact the natural environment (e.g. riparian areas, wildlife movement corridors, upland forested areas, and existing plant communities). Riparian buffers should be respected adjacent to all surface water bodies;
 - only permit single detached dwellings;
 - comprehensively evaluate its cumulative impact on the local and regional transportation network (i.e. capacity of Township Road 232, Centre Avenue, and the single bridge crossing at Balsam Avenue; Highways 22, 66 and 758). Upgrades to municipal collector roads and improvements to intersections of municipal roads with provincial highways may be required to facilitate future development;
 - limit the removal of existing vegetation to accommodate additional building sites while encouraging implementation of Fire Smart design principles; and
 - dedicate municipal reserves to provide alignments for the defined community pathway system, where appropriate.
 - Areas that represent constraints to development, either because they are unstable or because they are environmentally sensitive should be protected from development. These areas include slopes in excess of 15%, water bodies and wetlands, and riparian buffer. Where these areas qualify as environmental reserve under the MGA, the land should be dedicated to the County (See Section 5.2.2 a for Policies to Protect the Natural Environment).
- b) In some cases, panhandles should be considered to access new building sites without frontage onto a developed municipal road provided that its alignment:
 - can accommodate a privately maintained all-weather surface capable of providing yearround access to the building site for emergency service vehicles;
 - encourages single points of access for multiple building sites to limit the location and frequency of approaches onto municipal roads;
 - does not impact environmentally sensitive areas; and
 - can be developed with an approach that meets all applicable municipal standards.
- c) Consultation with existing agricultural operators adjacent to a conceptual scheme shall be undertaken during the preparation of a conceptual scheme to minimize residential impacts on existing agricultural operations through dialogue, buffering, phasing of development, respect for "Right to Farm" legislation and a sensitive development plan.
- d) Keeping of animals on lots greater than or equal to 4 acres in size, subdivided for residential purposes, should be encouraged (in conformity with the Land Use Bylaw) to maintain the rural nature of the Plan area. However, consideration should be given to their proximity to more concentrated residential development and the need for best management practices to be followed to reduce off-site impacts from manure management and stormwater runoff on the sub-basin.

7.4.2 Built-Out Residential Areas

- a) Built-out residential areas are defined on Figure 14.
- b) Unless existing lots within built-out residential areas carry a land use designation, under the Land Use Bylaw, at the time of adoption of this Plan, that permits further subdivision for residential purposes, lands within areas identified as built-out residential areas should not be allowed to redesignate to an alternate land use district or to subdivide further. Where existing lots carry such a land use designation, subdivision may be considered, to create lots as small as the minimum parcel size permitted within that land use district.

7.4.3 Infill Residential Areas

- a) Infill residential areas are defined on Figure 14.
- b) Except where permitted by the policies of this Plan, conceptual schemes should be required for all redesignation and/or subdivision applications in infill residential areas, within predetermined conceptual scheme boundaries, as defined in Figure 14 (See Section 7.1 for Conceptual Schemes).
- c) In west and north Bragg Creek parcel sizes within infill residential areas should not be less than 4 acres with an overall density of not greater than one lot per 4 acres of Gross Development Area (GDA).
- d) In south Bragg Creek, parcels sizes within infill residential areas should not be less than 2 acres with an overall density of not greater than one lot per 3 acres of GDA.
- e) Lands between the southern hamlet boundary and Banded Peak Elementary School (the hamlet expansion lands) should accommodate future expansion of the hamlet for residential development and appropriate institutional uses that are supported by efficient transportation, servicing and open space connections (See Section 7.2.5 Hamlet Residential Expansion).
- f) Future subdivision within infill residential areas should
 - reflect densities that have been calculated on the basis of a ratio of lots per acre of GDA, as illustrated in the following explanation and example;
 - address areas that represent constraints to development, yet do not qualify as environmental reserve, by including them within individual lots, provided that they are protected from development. The exact mechanism(s) to ensure protection shall be negotiated between the developer and the County and could include restrictive covenants, use of an environmental land trust and/or conservation easements;
 - respect the size, configuration, and orientation of the immediately adjacent subdivision pattern;
 - mitigate potential issues related to access, surface drainage, vegetation removal and sight line conflicts by encouraging collaboration amongst all directly affected landowners; and
 - have frontage onto a developed municipal road. Construction of new municipal roads within infill residential areas should be discouraged.

GROSS DEVELOPABLE AREA (GDA) – AN EXPLANATION AND EXAMPLE

Gross developable area (GDA) is the amount of land that remains once areas that represent constraints to development have been subtracted from the titled area (gross area). For example, in a quarter section containing 160 acres (i.e. with 160 acres of gross area) that has a water body that affects 8 acres of land, an associated riparian buffer of 7 acres and slopes in excess of 15% that affect 9 additional acres, there is a GDA of 136 acres.

At this point, lands required to be dedicated as municipal reserve and lands required for infrastructure such as roads and public utility lots have not been accounted for. Municipal reserves equal 10% of the parcel area that remains after lands that qualify as environmental reserve under the MGA have been identified and subtracted from the original parcel area. Lands required for infrastructure are dependent on the design and utility servicing requirements of the proposed development. Because these are unknown until the development has been finalized, it is easier to understand the implications of a density policy if gross developable acres are used in the calculations.

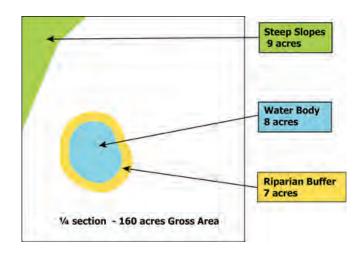


Figure 12: Gross Developable Area Calculation Example

The GDA is divided by the overall density allowable on the parcel to determine the maximum lot yield (the maximum number of lots able to be created on the parcel). In infill residential areas in north and west Bragg Creek, at an overall density of one lot per 4 acres of GDA, the quarter section used in the above example would be able to be subdivided to create a total of 34 lots. In south Bragg Creek, where an overall density of one lot per 3 acres of GDA is allowed, the maximum lot yield would be 45 lots. Areas required for dedication of municipal reserve or for internal subdivision roads etc. would decrease the actual number of lots that could be created because the overall density is equal to the minimum parcel size.

7.4.4 New Residential Areas

- a) New residential areas are defined on Figure 13.
- b) Except where permitted by the policies of this Plan, conceptual schemes should be required for all redesignation and/or subdivision applications (See Section7.1 for Conceptual Schemes).
- c) Isolation of a first parcel or existing farmsteads may continue to be considered, based on the merits of individual applications.
- d) Parcel sizes within new residential areas in west and north Bragg Creek should not be less than .25 acres, and not greater than 2 acres, with an overall density of not greater than one lot per 4 acres of GDA.
- e) Parcel sizes within new residential areas in south Bragg Creek should not be less than .25 acres, and not greater than 2 acres, with an overall density of not greater than one lot per 3 acres of GDA.
- f) Notwithstanding 7.4.4.(d) and 7.4.4.(e), parcel sizes greater than 2 acres may be considered when it can be demonstrated, to the satisfaction of the County, that a larger parcel size will support agriculture and/or open space planning; however, these parcels must form part of the gross developable area (GDA).
- g) Future subdivision within new residential areas should be in the form of cluster developments, and should (See Appendix B for Cluster Development definition):
 - include a variety of lot sizes;
 - address areas that represent constraints to development, yet do not qualify as environmental reserve, by:
 - to the extent possible, including them as lands identified as open space, and
 - when the amount of these areas is greater than the area available for open space, including them within individual lots, provided that they are protected from development. The exact mechanism(s) to ensure protection shall be negotiated between the developer and the County and could include restrictive covenants, use of an environmental land trust and/or conservation easements;
 - when planned in proximity to existing agricultural operations, infill residential areas, existing children's ranch (No Ka Oi Foundation), Wintergreen golf course and recreational facility, or Bragg Creek Provincial Park, provide suitable transitioning and buffering to limit potential for land use conflicts;
 - be accessed via construction of new municipal roads. To further reduce the removal of vegetation, alternate municipal road design standards may be considered provided that vehicle movements can be safely and efficiently accommodated and the municipal rights-of-way are able to sufficiently accommodate water, wastewater and/or stormwater infrastructure, and
 - be designed to provide at least two points of access onto an existing developed municipal road.
- h) Subdivision design within new residential areas should follow principles designed to encourage the creation and preservation of open space and to protect areas that represent constraints to development.
- i) For purposes of this section of the Plan, open space means lands that are restricted from development and that, following subdivision, are contained within a title separate from any parcel that allows for residential or public utility development. These lands should represent a large

percentage (approximately 50%) of the lands to be developed. They will be held in perpetuity for the benefit and enjoyment of residents in the future through the effective use of such tools as conservation easements, environmental land trusts, or common property within a bareland condominium (See Section 7.1 for Conceptual Schemes).

- j) High priority shall be given to maintaining open space in an undeveloped state for such purposes as stormwater management; protection of wildlife movement corridors and areas of significant habitat; and/or retention of biodiversity.
- k) Tools used to implement the creation and preservation of open space should clearly:
 - identify the maintenance requirements and responsibilities for these areas; and
 - identify appropriate, and respectively restrict, allowable land uses for each area of open space, in keeping with the policies of this Plan,
- I) Future subdivision design in new residential areas should reflect principles to create and preserve open space, as illustrated in the following explanation and example.

OPEN SPACE DESIGN – AN EXPLANATION AND EXAMPLE

The maximum residential lot yield for a parcel of land within a new residential area should be calculated according to the gross developable area formula contained in 7.4.3 above. Once the maximum number of lots is determined, the following steps should be followed to define and preserve open space areas (See Appendix B for Cluster Development definition):

- identify those areas that represent constraints to development. These areas are to be protected from development;
- identify those areas that are desirable to preserve as amenities, such as historic features, treed areas, wetlands, areas of contiguous habitat or wildlife movement corridors, etc. To the extent possible, both these areas and areas that represent constraints to development should be included as open space;
- identify residential building sites, to accommodate development of lots to the maximum lot yield;
- identify the location of applicable municipal reserve lands, in keeping with the policies of this Plan that identify appropriate use of reserve lands;
- determine road alignments and location of utility infrastructure facilities required to service the proposed building sites;
- determine the area, to be included within each lot associated with a building site. These lot areas shall not contain lands identified for municipal reserve, or areas identified as environmental reserve under the Municipal Government Act;
- lands not included in lots, roads, or municipal infrastructure are considered to be open space. Open space lands identified for municipal reserve, or as environmental reserve under the Municipal Government Act will remain in public ownership and will be largely undeveloped. The balance of these open space lands shall be protected from development. The exact mechanism(s) to ensure protection shall be negotiated between the developer and the County and could include restrictive covenants, use of an environmental land trust and/or conservation easements; and

• to the extent possible (i.e. to the extent that the area required by lots is less than or equal to the amount of land available for open space), lands that firstly, represent constraints to development and secondly, represent areas that are desirable to preserve as amenities, should be included in open space and not within lots.

Working this process through an example using the hypothetical quarter section identified in the gross developable area example above, the maximum lot yield in north or west Bragg Creek would be 34. In south Bragg Creek, a maximum of 45 lots could be developed. Additional lands that do not qualify as environmental reserve under the MGA or as areas that represent constraints to development, but that are desirable to restrict development on, would be identified. Hypothetically, this example quarter section could contain an area of contiguous habitat between the water body and the steep slopes. This area, along with the steep slopes, the water body and its riparian buffer are lands that should be contained within the open space.

Building sites for each lot would then be identified to optimize use of lands while protecting sensitive and desirable features of the site. Lands required to be dedicated as municipal reserves should be laid out to maximize the objectives of this Plan. Road alignments and lands to house water, sanitary and storm sewer facilities required to service this development would be identified. Finally, lot lines could be determined to identify the area to be contained within each residential lot. Lands identified early in the process as either areas that represent constraints to development or desirable to protect as amenities would not be contained within these lots, nor would lands identified as municipal reserve. Lots would be a maximum of 2 acres in size. In west and north Bragg Creek, 68 acres would be contained in residential lots: in south Bragg Creek, 90 acres would be developed for lot purposes.

The balance of the lands (i.e. those not contained in lots, being used as roads, or to house infrastructure) would constitute the open space that is to be protected from development. For the sake of this example, in north and west Bragg Creek, the 34 two acre lots would account for 68 acres. If, in addition, an estimate of 10% of the area developed for lots (6.8 acres) is required for roads and infrastructure, there would be 53% (85.2 acres) of the 160 acre parcel protected as open space. In south Bragg Creek, the 45 two acre lots would account for 90 acres. If an additional 10% of the area developed for roads and infrastructure, there would be 38% (60 acres) of the 160 acre parcel protected as open space.



7.5 COMMERCIAL DEVELOPMENT OUTSIDE OF THE HAMLET VISION:

It is the year 2030. Commercial development is concentrated within a vibrant hamlet commercial core that attracts tourists and visitors to the area on a regular and ongoing basis. To support that development, bed and breakfast homes provide overnight accommodation outside of the hamlet, while not disturbing the peace and quiet of the surrounding residential area.

Home-based businesses continue to play a significant role in the provision of commercial and light industrial services throughout the Plan area. Businesses are developed and operated in residential areas in an unobtrusive manner that provides for the rights of both the business owner and the neighbouring residents. However, once they become established and grow in scale to where they are no longer able to quietly co-exist within the neighbourhood, these businesses relocate to the commercial area within the hamlet.

Special function facilities that bring groups of like-minded individuals to the area to experience its beauty and connect with nature are scattered throughout the Greater Bragg Creek area, having been developed to a scale and character that is in harmony with the balance of the surrounding land uses. When proposed, these facilities have gained the support of the majority of adjacent residents who will be directly affected by the business.

POLICIES

7.5.1 Overnight Accommodations

- a) Continued development of bed and breakfast operations is encouraged in conformity with requirements of the Land Use Bylaw.
- b) Vacation homes should not be allowed to operate within the Greater Bragg Creek area.

7.5.2 Home-Based Businesses

- a) Development of type II and type II home-based businesses should be encouraged. To increase the viability of type II home-based businesses:
 - employment of non-resident staff should be allowed to a maximum of two permanent employees at any one time, plus up to an additional 50 hours of non-resident labour per month;
 - the development authority should review the operation annually during the first five years of operation, and subsequently after each five year period of operation, to ensure that these businesses do not dominate the primary residential use of the dwelling; and
 - in all other aspects, type I and type II home based businesses shall be governed by relevant policies in the Land Use Bylaw.

7.5.3 Additional Business Opportunities Outside of the Hamlet

- a) Indoor and outdoor recreation facilities may be developed throughout the Greater Bragg Creek area, provided that:
 - they are dealt with on a case by case basis through redesignation to a site-specific direct control land use district; and
 - support for the use is provided from a majority of adjacent landowners at the time of redesignation.

8.0 FUTURE COMMUNITY DEVELOPMENT

As noted previously, the close connection that residents feel to the environment, the opportunities afforded by adjacent provincial recreation areas, and the somewhat isolated nature of the lands within the Plan area contribute to the sense of community and identity that exists within the Greater Bragg Creek area. Residents of adjacent jurisdictions, as well as visitors to the area, feel an affinity to the hamlet, in particular, and, to some extent, contribute to the community's identity.

Provision of services aimed at improving the safety, health, and wellbeing of the Plan area residents contribute positively to this sense of community. As the community continues to grow and evolve, so too will its need for these services. In order to maintain adequate levels of services throughout the Plan area, all new development must consider requirements for each of these services. The County requires that development proposals accommodate design elements that consider safety measures and appropriate levels of servicing required for fire, police, and ambulance services. Hopefully, proponents of new development will identify unique ways in which they can contribute to a growing and evolving sense of community and, in this way, foster community growth.

The purpose of this section of the Plan is to provide policies that address the provision of community, protective and emergency services that are currently provided to the Plan area through the County's collaboration with surrounding municipalities.

8.1 COMMUNITY DEVELOPMENT

VISION:

It is the year 2030. Greater Bragg Creek continues to be a vibrant community with a range of recreational, social, and cultural amenities that meet the needs of all of its residents, regardless of age. The need for support services and leisure opportunities has been identified through a community needs assessment and public and private partnerships and agreements have been put in place to provide the facilities and offer the range of programs best suited to meet this demand. Public facilities, such as the Bragg Creek Centre, the Snowbirds Centre and Banded Beak School have been expanded and augmented with additional facilities, in response to community demand. They offer spaces that foster and contribute to resident interactions and engagement, enhancing community pride and sense of belonging.

Both within and outside of the hamlet, new developments have been designed with an eye to compatibility amongst land uses, affording opportunities to build "good neighbour" relations and an acceptance of each other's differences. Particularly within the hamlet, architecture and design elements have been incorporated into all new public or commercial developments to support crime prevention.

POLICIES:

- a) An implementation strategy for the Community Survey 2005 Technical Report for Rocky View West Recreation District should be developed using provincial and municipal grants and funding sources as well as partnerships with private industry.
- b) The need for community support and leisure services should be addressed during the evaluation of future subdivision and development applications.
- c) Along with other agencies, including the local recreation board, the County should monitor resident and development needs within the Plan area over time to ensure appropriate levels of community support and leisure services are maintained.
- d) Subject to budget considerations, the County should endeavour to support existing and new or expanded public facilities, in accordance with a comprehensive strategy established, with community input, by the local recreation board's master plan.

- e) Where feasible, the County should establish, and subsequently monitor and review, partnerships with other municipalities and jurisdictions to maximize levels of provision of community support services and leisure opportunities within the Plan area.
- f) Subject to budget considerations, future opportunities to deliver community support services on a local basis (e.g. bylaw enforcement), or to locate support facilities within the community (e.g. RCMP detachment, health services), should be investigated, as they arise and the community grows.
- g) When evaluating proposed development of commercial and/or public buildings the development authority should consider the following basic principles of Crime Prevention Through Environmental Design (CPTED):
 - Awareness of the surrounding environment People should be able to see and understand surrounding environment through unobstructed sightlines, adequate lighting, and avoidance of hidden spaces.
 - Visibility by others Create the ability to be seen by others and create a sense of ownership through maintenance and management of the built environment.
 - Finding help The ability to communicate, find help or escape when in danger through improved signs and designs.

8.2 EMERGENCY AND PROTECTIVE SERVICES

VISION:

It is the year 2030. Greater Bragg Creek continues to be a safe community within which local residents and area visitors alike can experience a community that carefully respects the natural environment while accepting a level of accompanying risk. Greater Bragg Creek landowners recognize and acknowledge risks associated with a wildland/community interface.

In order to mitigate risks associated with wildland/community interface development, an alternate municipal collector road has been constructed to service lands west of the Elbow River. As well, a water supply and distribution system provides urban levels of fire flows within the hamlet service area; and all new subdivision within the community has been required to implement specific architectural standards that encourage use of fire resistant construction materials and appropriate site design and landscape techniques. Additionally, all local landowners regularly participate in fuel-reduction programs designed to reduce unnecessary vegetation.

Over time, the County has monitored, reviewed and updated mutual aid agreements to ensure appropriate emergency and protective service levels (fire, police, and ambulance) are maintained within the area.

POLICIES:

8.2.1 Short Term:

- a) A municipal water supply and distribution system capable of providing urban fire flows should be installed within the hamlet service area.
- b) Priority should be given to construction of an additional municipal access/egress road(s) to provide alternate access/egress for all lands west of the Elbow River, in the event access across the Balsam Avenue Bridge is disrupted.
- c) The County should review all existing/proposed mutual aid agreements to ensure that appropriate levels of emergency response are provided throughout the Plan area (see Section 9.0 for Inter-jurisdictional Co-operation).
- d) A fuel load reduction plan should be implemented throughout the entire community to encourage reduction of redundant vegetative materials in proximity to combustible structures on all public and private property.
- e) A central community drop-off facility should be provided to support a fuel load reduction program, with organic matters chipped on site, and either packaged and removed from the area or locally recycled.
- f) Early warning devices should be considered for installation within all new subdivision and development to protect each new development.
- g) The use of internal and external sprinkler systems within new subdivisions should be encouraged
- h) A partnership between the County, Kananaskis Improvement District, and Alberta Sustainable Resource Development should be investigated with a goal of constructing a fire break within lands south and west of the Plan area. Rocky View County should work closely with Sustainable Resource Development to investigate the goal of establishing firebreaks within lands south and west of the Plan area.
- i) Partnerships should be established between the County and all local operators of oil and gas facilities to coordinate responses during emergency events.

8.2.2 Long Term:

- a) The County should continue to monitor and review all existing mutual aid agreements it presently holds with other jurisdictions to ensure maximum efficiency for emergency service response within the Plan area.
- b) Proposals for new multi-lot subdivision within the Plan area should be supported by a wildfire risk assessment, prepared by a qualified professional, that examines the following criteria:
 - Existing vegetation and topography to determine the site's susceptibility to wildfire;
 - Location of existing/proposed water bodies within the area capable of providing a supply of water for fire suppression purposes (see Section 6.1.4 for Stormwater Management within the Plan area);
 - An assessment of the proposed subdivision layout, density, and development phasing to encourage implementation of a comprehensive design that recognizes and mitigates susceptibility to wildfire risks (e.g. appropriate building spacing, reduced cul-de-sac lengths, appropriate clearing of building sites, deck enclosure restrictions, etc.);

- An assessment of local traffic circulation patterns, both existing and proposed, to determine the availability of safe access for fire and other emergency equipment and apparatus; and
- An assessment of proposed architectural controls within the subdivision designed to encourage fire suppression within each new building site (e.g. appropriate roofing and siding materials, landscaping, interior/exterior sprinklers, etc.)
- c) A full fuel load management plan similar to that currently being implemented in Jasper and Banff should be developed and implemented throughout the Greater Bragg Creek area.
- d) Local developers should be required to prepare construction management plans that detail implementation of sensitive construction measures to enhance fire protection capabilities during construction periods when the hazards are highest.
- e) The County should ultimately consider developing an emergency service facility within the area based on cooperative and mutually beneficial contributions from area residents, local developers, adjacent municipalities and jurisdictions and various levels of government.

SECTION C – IMPLEMENTATION

The success of this Area Structure Plan is dependent on it being implemented in a manner that honours the community aspirations and visions that are articulated throughout the Plan. The purpose of this section of the Plan is to provide direction and considerations through which the policies of other sections of the Plan can be realized. This includes identifying the manner in which the County should communicate and cooperate with adjacent jurisdictions; as well as the measures that will need to be taken by the County after the Plan is adopted to facilitate implementation of the policies. Additionally, it is important that the implementation of the Plan policies be monitored to be able to measure the degree to which the Plan policies were able to achieve the articulated community vision and aspirations.

9.0 INTER-JURISDICTIONAL COOPERATION

VISION:

It is the year 2030. Development within the Greater Bragg Creek area continues to reflect sensitivity to the multiple jurisdictions that lie adjacent to the Plan area. Ongoing consultation occurs with affected neighbouring jurisdictions as part of redesignation, subdivision, and development applications, which affect the interface between jurisdictions to identify and mitigate any inter-jurisdictional issues. Development with potential to affect water quality and quantity and riparian areas associated with the Elbow River and its tributaries has been carefully designed to minimize any negative impacts. Key natural features and habitat areas within this interface area have been identified and protected.

Transportation concerns have been addressed on a regional basis. The level of service of existing and future linkages between jurisdictions has been maintained and where possible, enhanced. Development has been sensitive to the visual integrity of Inter-municipal gateways. Where possible and practicable, the utility needs of all jurisdictions have been considered and incorporated in any regional solutions that are developed to meet the needs of any one jurisdiction.

Continued inter-jurisdictional co-operation has resulted in enhanced levels of emergency and community service delivery.

POLICIES:

The purpose of this section of the Plan is to provide policies that foster ongoing dialogue and co-operation between Rocky View County and the jurisdictions that lie adjacent to the Plan area, and with relevant provincial agencies, with regard to future development on lands and/or issues of mutual interest.

9.1.1 Integration of Land Uses

a) Applications for redesignation, subdivision or development affecting lands within 800 metres of the boundary of an adjacent municipality and/or jurisdiction should be referred for comment to the Tsuut'ina Nation Reserve #145, the MD of Foothills, Kananaskis Improvement District, Bragg Creek Provincial Park and/or the Province, as appropriate and relevant.

- b) To achieve a compatible and gradual transition between subdivision and development within the Plan area and land uses within adjacent municipalities and jurisdictions, consideration of an appropriate interface should be incorporated into all forms of future development to create a harmonious transition from one municipality/jurisdiction to another. Consideration of appropriate transitioning principles should be determined as a result of ongoing inter-jurisdictional consultation and, at a minimum should address:
 - sensitivity to existing land uses and community characteristics;
 - protection of water quality and quantity within the Elbow River and Priddis Creek;
 - protection of identified key natural features and habitat areas;
 - transportation links; and
 - integration of open space alternatives
- c) Developments in proximity to the provincial lease lands should be sensitive to agricultural uses existing on these lands and provide suitable buffers along common boundaries.
- d) Mutual partnerships should be developed with Kananaskis Improvement District to mitigate potential negative impacts, resulting from developments, between the Plan area and the provincial recreational areas west of the Plan area.
- e) Subdivision and/or development proposals should provide suitable buffers between the Plan area and Bragg Creek Provincial Park.
- f) The County should promote close consultation with the Department of Fisheries and Oceans, the Province, and the Calgary Health Region to encourage multi-jurisdictional evaluation of subdivision and developments that may negatively impact the natural environment within the Plan area.
- g) The County should promote strategies to preserve significant archeological sites within the Plan area.
- h) The County should promote close consultation with the Tsuut'ina Nation Reserve #145 to develop formal strategies to preserve significant natural environmental areas that cross the two jurisdictions such as water, wildlife, etc.
- i) The County should encourage a partnership with the Province and the Tsuut'ina Nation Reserve #145 to develop a strategy for future development of the entranceway to the hamlet that will protect the visual integrity of this key inter-jurisdictional entranceway.

9.1.2 Transportation Impacts

- a) The County should work closely with the Province to develop an access management strategy for lands adjacent to Highway 22, Highway 66, and Highway 758. Until such a strategy has been developed, all highway access within the Plan area must meet provincial requirements.
- b) Preserving the safe and efficient operation of the provincial transportation system should be a priority when evaluating future subdivision and/or development within the Plan area.
- c) The County should encourage a partnership with the Province and the Tsuut'ina Nation Reserve #145 to develop appropriate short and long-term strategies to improve the design and function of the intersection between Balsam Avenue, Hwy 22, and Hwy 758.
- d) Close working relationships between the Province, the County, local developers, industry representatives, and area residents should be established to coordinate all necessary short and long-term improvements to the provincial transportation system.

e) With the exception of those vehicles accessing east Kananaskis Country from West Bragg Creek Road, access through the Plan area to Kananaskis Country should be directed to Highway 66 via Highway 22.

9.1.3 Regional Servicing

- a) The identification of locations required for future utility easements to accommodate regional communal water and wastewater infrastructure is encouraged during the preparation of conceptual schemes in support of proposed development within the Plan area.
- b) The County should consult with adjacent jurisdictions, the Province, and other relevant stakeholders to identify any opportunities for mutual benefit from utility servicing solutions proposed within Rocky View County or any of the neighbouring jurisdictions.
- c) The County should consult with affected adjacent jurisdictions during preparation of master drainage plans for sub-basins that cross respective municipal boundaries.

9.1.4 Provision of Community, Protective and Emergency Services

- a) The County should continue to review existing agreements that provide for the joint provision of emergency, protective and community services on a regular and ongoing basis to ensure that they adequately reflect the degree and nature of growth and development occurring within the Plan area.
- b) The County should investigate additional alliances with adjacent jurisdictions, if required, to facilitate development of an additional municipal access to lands west of the Elbow River (See Section 8.2 for Emergency Services).
- c) An open space and trail system should be developed for the Plan area to provide direction for acquisition of open space through the subdivision and development process. This system should provide for connections between the Plan Area and adjacent jurisdictions that are safe and beneficial to all affected jurisdictions.

10.0 PLAN IMPLEMENTATION AND REVIEW

VISION

It is the year 2030. It is 25 years since the Greater Bragg Creek Area Structure Plan was adopted by the Council of Rocky View County. It is evident from the subdivision and development fabric that exists both within and outside of the hamlet that the community vision articulated in this Plan has been realized.

The "lifestyle equity" and "latent utility" afforded to the local community by the natural environment has been preserved over time through implementation of the integrated land use planning strategy articulated through the policies of this Plan – a strategy that first looks at the capabilities of the land to sustain additional development, then at the infrastructure required to service the area and finally, identifies the most appropriate forms of land use and development to reflect the balance of stakeholder interests. The community has benefited from implementation of policies in the Greater Bragg Creek Area Structure Plan that has achieved a balance between the natural environment and the impacts of human settlement.

POLICIES:

The purpose of this section of the Plan is to identify actions that will require initiation or participation by the County if the polices within this Plan are to be fully implemented. All County undertakings recommended by the ASP are subject to municipal budgetary considerations.

10.1.1 Hamlet of Bragg Creek Area Redevelopment Plan

a) Upon adoption of this Area Structure Plan, the County should rescind the Hamlet of Bragg Creek Area Redevelopment Plan.

10.1.2 Applications for Redesignation, Subdivision and/or Development

- a) When considering proposals for redesignation, subdivision and/or development, the County shall confirm that the proposal is in accordance with the provisions of this Plan.
- b) Where a proposal for redesignation, subdivision, and/or development approval proposes a land use not contemplated by this Plan, or in the opinion of the County is not in conformity with this Plan, the County shall:
 - require the proposal to be amended to bring it into conformity with this Plan;
 - refuse the proposal; or
 - amend this Plan.
- c) Endeavour to assist agreements shall be encouraged by the County in order to fairly distribute, amongst all affected lands, development costs that result in benefits to an area greater than that proposed by a specific development.
- d) Any home occupations within the Plan area are subject to relevant provisions of this Plan and the County's Land Use Bylaw. These provisions shall be enforced to ensure the appropriate use of land subsequent to the approval of a home occupation.

10.1.3 Conceptual Schemes

- a) Conceptual schemes will play an important role in the implementation of this ASP. Where required, they shall be prepared to the satisfaction of the County.
- b) Conceptual schemes shall be adopted by Council, by bylaw.
- c) Each bylaw prepared to adopt a conceptual scheme shall address the concurrent amendment of this ASP to include the conceptual scheme as a part of the ASP.
- d) Prior to third reading of any bylaw adopting a conceptual scheme for lands within the Plan area, the County, at its sole discretion may:
 - proceed with an amendment to this plan adopting the conceptual scheme;
 - require further evaluation of the subject and/or affected lands; including revisions to the conceptual scheme; or
 - terminate the conceptual scheme review and/or rescind first reading to any amending bylaw, or undertake any other action deemed appropriate by the County.
- e) Pursuant to the above, where the County has at its sole discretion, terminated a conceptual scheme review or undertaken a similar action, the County should refuse any proposal for redesignation and/or rescind first reading of a bylaw affecting a redesignation and/or refuse with reasons any application for subdivision within the proposed conceptual scheme area.

10.1.4 Natural Environment Considerations

- a) The County should investigate the development of strategies to encourage the use of voluntary, private conservation easements.
- b) The County, in conjunction with the Province, should redefine the floodway and flood fringe of the Elbow River to reflect the flooding experienced in 2005. The Land Use Bylaw should be updated to reflect these newly defined areas.

GREATER BRAGG CREEK

- c) A monitoring station should be constructed within the Plan area to provide ongoing data regarding rainfall, stream flows and water quality. The monitoring station should be funded, operated and maintained via a partnership between the Province and the County.
- d) The Land Use Bylaw should be amended to:
 - reflect amended flood way and flood fringe areas for the Elbow River, created as a result of the June 2005 floods;
 - require development permit approval for the removal of significant areas of trees within the Plan area; and
 - require development permit approval for any activities having potential to negatively impact an identified riparian area within the Plan.

10.1.5 Open Space Considerations

- a) Generally, the County should require dedication of municipal reserves as land rather than cash-inlieu of land when subdivision occurs.
- b) Ongoing opportunities for public education programs designed to promote an understanding and awareness of local watershed and surface drainage issues should be encouraged.
- c) The County should support:
 - creation of local watershed advisory councils and watershed stewardship groups to help develop grass roots solutions that preserve and maintain the integrity of the watershed and raise awareness of local environmental issues and concerns;
 - educational opportunities with respect to Fire Smart practices within natural environmental areas; and
 - responsible agricultural management practices that preserve the integrity of riparian areas.
- d) The County should exercise any options available to it to maintain the public stewardship of the provincial lease lands within the Plan area.

10.1.6 Local Historical Context Considerations

- a) In cases where historical buildings qualify for preservation in accordance with the Provincial Historical Resource Act, partnerships between the Province, the County, local developers, and area residents should be developed to finance the preservation and maintenance of these buildings.
- b) The County should encourage partnerships between local community groups, agricultural operators and developers wherever possible, to help maintain and enhance appreciation of the community's historical settlement patterns.

10.1.7 Utility Servicing Considerations

- a) In the immediate future, the County should finalize implementation of municipally owned and operated water and wastewater utility systems within the hamlet service area and should pursue maximum financial contributions from the federal and provincial governments to offset all related costs.
- b) The County, with participation the Province, Calgary Health Region, and landowners should examine the feasibility of implementing an ongoing program to monitor the long-term operational efficiencies for all PSTS systems servicing future development within the Plan area.

- c) Subject to budgetary considerations, the County should consider the preparation of master drainage plans for the Plan area. Priority shall be given to the preparation of a drainage plan for the hamlet.
- e) The County should continue to own and operate a Bragg Creek waste transfer site to provide opportunities for sorting, recycling and disposal of solid waste for local landowners and to provide enhanced recycling opportunities. Future subdivision and/or developments should be encouraged to support provision of solid waste disposal facilities within the Plan area.
- f) The County should encourage public education programs to promote an understanding of leading edge strategies designed to reduce the amount of solid waste directed into municipal landfills from the Plan area.
- g) The County should investigate efficiencies and economies that could be achieved by participating in a regional solid waste management utility.

10.1.8 Transportation Considerations

- a) Ongoing partnerships and working relationships are important to successful implementation of transportation initiatives identified for the Plan area by this Plan. The County should establish:
 - close working relationships with and among the Province, local developers, industry representatives, and area residents to coordinate any required short and long-term improvements to the provincial transportation system;
 - a partnership with the Province and the Tsuut'ina Nation Reserve #145 to develop appropriate short and long-term strategies to improve the design and function of the intersection between Balsam Avenue, Highway 22, and Highway 758;
 - a partnership with the Province to monitor the ongoing operational efficiency of the Balsam Avenue Bridge; and
 - a funding partnership that includes local developers, the Province, the County and the federal government to construct an additional collector road to provide access and egress for lands lying west of the Elbow River.
- b) The County should investigate the merit of acquiring jurisdiction over the portion of Highway 758 (White Avenue) located within the hamlet.
- c) The County should coordinate its road program and maintenance initiatives within the Plan area so that improvements to collector roads can be implemented in concert with new subdivision and/or developments within the Plan area.
- d) The County should undertake a master parking study to identify the need for and appropriate locations of public parking within commercial areas, taking into consideration existing streetscapes, lot configurations, and vegetation. This study should investigate the use of cash-in-lieu of provision of parking stalls and creation of a business revitalization zone as funding sources for additional public parking areas.
- e) The Land Use Bylaw should be amended to increase the minimum number of parking stalls required by all new developments within commercial areas.

10.1.9 Trails Considerations

a) The County should support and encourage the creation of a Greater Bragg Creek Trails association (GBCTA) within the community to provide input on the development of the trails system. GBCTA is encouraged to coordinate with the local recreation board to ensure a coordinated and systematic approach to trail development as new proposals for subdivision and development are considered when circulated to the recreation board from the County.

- b) The County should retain all existing and future municipal reserve lands and statutory road allowances and consider their viability for trail alignments.
- c) The County should pursue opportunities for partnerships between various levels of government, industry and local community groups to promote the construction of local trails.
- e) The County should own and maintain the trail system, and should create a parks and recreation department to ensure trails are developed and maintained to a high standard.

10.1.10 Residential Development Considerations

- a) The County should undertake preparation of a hamlet expansion strategy as a comprehensive land use strategy to accommodate hamlet expansion within that portion of the south policy area that lies between Highway 22 and Bragg Creek Provincial Park, north of the Banded Peak School site. This strategy should:
 - accommodate an appropriate range of residential and institutional land uses within the hamlet expansion lands;
 - provide for an appropriately staged transition from country residential to hamlet land uses in accordance with the logical extension of transportation and utility services;
 - establish controls for the rate of development of the hamlet expansion lands. These controls should identify appropriate development phasing and conditions that should exist prior to development proceeding in a subsequent phases;
 - accommodate the introduction of semi-detached residential structures into a predominately single family area to:
 - reflect a minimum parcel size of .46 acres for the semi-detached structure, 10,000 ft² for each dwelling unit, and
 - allow for the separate ownership of semi-detached housing units;
 - establish an appropriate mix of single detached and semi-detached residences;
 - accommodate the logical extension of transportation connections into the hamlet expansion lands (both from the hamlet and Highway 22);
 - accommodate extension of utility services and open space connections from the hamlet into the hamlet expansion lands;
 - accommodate appropriate transitioning and buffering between the hamlet expansion lands and the Bragg Creek Provincial Park; and
 - be developed through a process of public consultation to ensure all community issues have been addressed.
 - Land Use Bylaw should be amended to introduce a new land use district(s) to provide for development of residential uses in the form and densities identified within this Plan, including provisions for changes identified to current provisions for type II home based businesses.

10.1.11 Commercial Development Consideration

- a) The Land Use Bylaw should be amended to:
 - increase the minimum number of parking stalls required by all new developments within commercial areas;
 - introduce a new land use district(s) to provide for commercial development within the existing and expanded commercial core of the hamlet, as identified in this Plan. This new district(s) should identify:
 - areas suitable for commercial expansion,
 - appropriate permitted and discretionary uses,
 - definitions for new land uses to be allowed in expansion area 2 (including country inns, antique shops, art galleries, artisan boutiques), and
 - provisions to guide the form and location of development within the district(s);

10.1.12 Community Development Considerations

- a) The County should utilize information from community needs assessments undertaken to identify current and project future requirements for community support and leisure services and opportunities.
- b) The County should consider developing a joint use municipal reserve/school reserve on the lands immediately adjacent to and south of the Banded Peak School site to provide for future facility requirements and enhance recreational opportunities within the community.
- c) The County should:
 - support creation of a Greater Bragg Creek historical society, to undertake an assessment of buildings and cultural landscapes of local significance within the Plan area. The assessment should identify locations of such buildings and landscapes and a provide rationale that supports why they should be considered historically significant.
 - support existing and new or expanded public facilities financially and operationally, in accordance with a comprehensive strategy established, with community input, by the local recreation board's master plan.
 - encourage partnerships between local community groups, agricultural operators and developers wherever possible, to help maintain and enhance appreciation of the community's historical settlement patterns.
 - establish, and subsequently monitor and review, partnerships with other municipalities and jurisdictions to maximize levels of provision of community support services and leisure opportunities within the Plan area.
- d) The County should investigate future opportunities to deliver community support services on a local basis (e.g. bylaw enforcement), or to locate support facilities within the community (e.g. RCMP detachment, health services), as they arise and the community grows.

10.1.13 Emergency Services Considerations

- a) The County should participate in development and implementation of a fuel load reduction plan throughout the entire community to encourage reduction of redundant vegetative materials in proximity to combustible structures on all public and private property. A central community drop-off facility should be provided to support a fuel load reduction program, with organic matters chipped on site, and either packaged and removed from the area or locally recycled. Financial incentives for private landowners should be developed to encourage them to implement Fire Smart practices.
- b) The County should:
 - review all existing/proposed mutual aid agreements to ensure that appropriate levels of emergency response are provided throughout the Plan area.
 - establish a partnership with Kananaskis Improvement District and the Province to investigate construction of a fire break within lands south and west of the Plan area; and
 - establish a partnership with local operators of oil and gas facilities to coordinate responses during emergency events.

10.1.14 Interjurisdictional Considerations

a) The County should encourage a partnership with the Province and the Tsuut'ina Nation Reserve #145 to develop appropriate short and long-term strategies to improve the design and function of the intersection between Balsam Avenue, Highway 22, and Highway 758.

10.1.15 PLAN REVIEW

a) The County should review the Plan on a regular basis in order to ensure that Plan objectives and policies are current and effective.

10.1.16 Plan Amendment

- a) Council, after following the procedures for public participation contained in Section 692 of the Municipal Government Act, shall consider amendment of this Plan under any of the following circumstances:
 - an application has been received to amend the Plan;
 - a conceptual scheme has been prepared in accordance with the provisions of Section 7.1 of this Plan and has been adopted by Council. Adopted conceptual schemes shall be appended to this Plan and comprise the policy guiding future redesignation, subdivision and development applications for lands within the conceptual scheme area; and
 - regular review of this ASP requires amendment to the policy statements within the Plan to ensure its ongoing ability to guide future redesignation, subdivision and development within the Plan area in an effective manner.

APPENDIX A: HAMLET OF BRAGG CREEK DESIGN STANDARDS

This document is linked separately on this website, please click to see the document.

a) Hamlet of Bragg Creek Design Standards

APPENDIX B: DEFINITIONS

Active floodplain - an area of land that supports floodplain plant species and is:

- a) adjacent to a stream that may be subject to temporary, frequent or seasonal inundation, or
- b) within a boundary that is indicated by the visible high water mark.
- c) Within the Hamlet of Bragg Creek, the area that lies within the floodway of either the Elbow River or Bragg Creek, as shown on the Bragg Creek Flood Risk Map

Areas that represent constraints to development – those lands that should be protected from development either because they are unstable or because they are environmentally sensitive. These areas include slopes in excess of 15%, water bodies and wetlands, and riparian buffer. Where these areas qualify as Environmental Reserve under the MGA, the land should be dedicated to the County.

Cluster Development - A form of residential development that concentrates buildings or lots on a part of the site to allow the remaining land to be used for such purposes as: public or private open space, appropriate agricultural uses, and preservation of natural habitat. The concentration of lots is facilitated by a reduction in lot size. A cluster development may consist of one or more cluster groups surrounded by open space.

Development - any of the following associated with, or resulting from, local government regulation or approval for residential, commercial or industrial activities or ancillary activities to the extent that they are subject to local government powers i.e. the Municipal Government Act:

- a) removal, alteration, disruption or destruction of vegetation;
- b) disturbance of soils;
- c) construction or erection of buildings and structures;
- d) creation of non-structural impervious or semi-impervious surfaces.

Floodplain plant species - plant species that are typical of an area of inundated or saturated soil conditions and that are distinct from plant species on freely drained adjacent upland sites.

High water mark - the visible high water mark of a stream where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark the soil and the bed of the stream with a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself, and includes the active flood plain.

The determination of where the high water mark is in respect to the watercourse is the first step in setting the optimum width of the riparian zone which is generally termed to be the boundary of the Sensitive Protected Environmental Area (SPEA). On-site determinations of where the high water mark occurs are typically based on the following site characteristics. For flowing watercourses, the high water mark is indicated by a distinct change in both vegetation and sediment texture. Above the high water mark, the soils and terrestrial plants appear undisturbed by erosion events. Bank areas below the top of bank typically have freshly moved sediments such as clean sands, gravels and cobbles depending on the energy of the stream being investigated. These areas will also show signs of sediment transport such as deposition and scour zones. Where stream channels and their banks are distinct, this type of determination may be a fairly easy process, however, in flatter areas such as occur in many areas of West Bragg Creek, identifying where the high water mark should be can be more challenging. In these types of situations, the high water mark should be identified and flagged by a QUES before being surveyed by a qualified land surveyor or GPS technician to delineate the actual required extent of the riparian buffer.

Infrastructure –only when no alternate siting or route can be used, any of the following associated with, or resulting from, local government regulation or approval for residential, commercial or industrial activities or ancillary activities to the extent that they are subject to local government powers i.e. the Municipal Government Act:

- a) construction of roads, docks, and bridges;
- b) flood protection works;
- c) provision and maintenance of sewer and water services; and,
- d) development of utility corridors

Permanent structure – any building or structure that was lawfully constructed, placed, or erected on a secure and long lasting foundation on land in accordance with any local government bylaw or approval condition in effect at the time of construction, placement or erection.

Qualified Environmental Professional (QUES) - an applied scientist or technologist, acting alone or together with another qualified environmental professional, where:

- a) the individual is registered and in good standing in Alberta with an appropriate professional organization constituted under an Act, acting under that association's code of ethics and subject to disciplinary action by that association e.g. ASPB, ASET, AIA or similar body;
- b) the individuals area of expertise is recognized in delineating riparian buffer; and,
- c) the individual is acting within that individual's area of expertise.

Ravine - a narrow, steep-sided valley that is commonly eroded by running water and has a slope grade greater than 3:1.

Riparian Buffer - a fixed width buffer adjacent to all surface drainage features (including wetlands) where development is regulated in the hamlet and restricted outside of the hamlet with the exception of site-specific requirements for infrastructure including roads, trails, docks, utilities and flood protection works. All development must comply with current regulations of DFO, the Province and the County. In all cases the overall integrity of the riparian buffer must be maintained.

Riparian Buffer Boundary Delineation:

- a) For all streams, tributaries and wetlands: the 30-metre strip on both sides of the stream, measured from the high water mark;
- b) Elbow River, a 50-metre strip that extends outside of the active flood plain;
- c) for a ravine less than 60 metres wide, a strip on both sides of the stream measured from the high water mark to a point 30 metres beyond the top of the ravine bank; and,
- d) for a ravine 60 metres wide or greater, a strip on both sides of the stream measured from the high water mark to a point that is 10 metres beyond the top of the ravine bank.

An illustration that provides further clarity on the meaning of the ravine riparian buffer measurement is shown in Figure 14. The high water mark is determined by the bankfull level of the water body. As shown in Figure 15, bankfull width is measured at the top of the roots of terrestrial vegetation along the edge of water bodies.

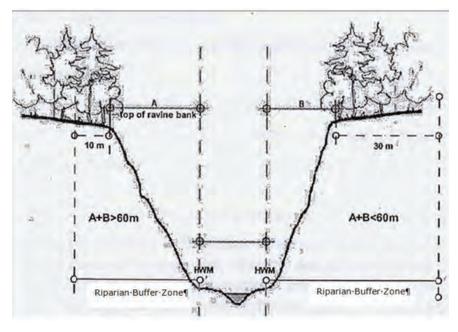


Figure 14: Riparian Buffer for Raviness

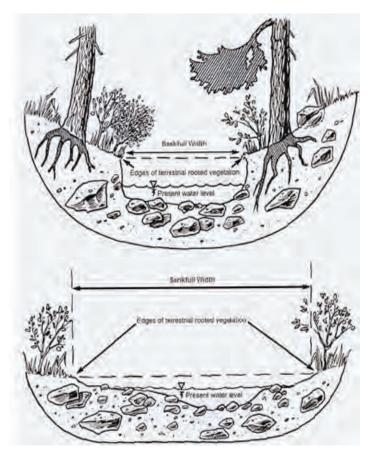


Figure 15: Diagram of bankfull width

Note that bankfull width is not measured at the water line. It is measured at the top of the roots of terrestrial vegetation closest to the water.

Stream – includes any of the following that supports fish habitat:

- a) A watercourse, whether it usually contains water or not;
- b) A pond lake, river, or brook;
- c) A ditch, spring or wetland that is connected by surface water flow to something referred to in a) or b) above.

Top of the Ravine Bank - the first significant break in a ravine slope where the break occurs such that the grade beyond the break is flatter than 3:1 for a minimum distance of 15 metres measured perpendicularly from the break, and the break does not include a bench within the ravine that could be developed.

Wetland - land that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, fens, and similar areas that are not part of the active flood plain.

The outer edge of wetlands can be determined from site-specific ground surveys and by mapping the upslope extent of the following combinations of conditions:

- Predominance of plant species that normally grow in water or water saturated soils or in peat soils (plant communities that indicate sub-hydric or hydric ecological moisture regimes).
- Soils that are water saturated or show evidence of prolonged water saturation (gleying) within 30 centimetres of the surface or are peat soils.
- For shrub areas, the transition between shrub dominated and tree dominated plant communities.

APPENDIX C: RESOURCE INVENTORY AND SENSITIVITY ANALYSIS STUDY

These documents are linked separately on this website, please click to see the documents:

- a) <u>RISA Report</u>
- b) <u>Appendix I to III</u>

Area Structure Plan GREATER BRAGG CREEK

APPENDIX D: ADOPTED CONCEPTUAL SCHEMES

- a) Moose Mountain Trails Conceptual Scheme
- b) <u>Wintergreen Estates Conceptual Scheme</u>

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