

20. LAND USE DESIGNATIONS

20.1 Background

The land use designations are meant to identify, in general terms, the type of land uses that are appropriate for the designated lands. The ranges in parcel sizes are reflective of parcel sizes that currently exist within the land use designation. The referenced minimum parcel sizes do not reflect the perspective of the ALC. For lands within the ALR, it is possible that subdivision into these lot sizes will not be supported by the ALC.

Subject to the zoning bylaw, agricultural use is permitted on all lands located within the ALR. The ALR is a provincial zone in which agriculture is recognized as the priority use. Farming is encouraged and non-agricultural uses are controlled. Further detail regarding the intent of the land use designations is found below.

The land use designations are shown on **Schedules D** and **D1-D8**. Where a land use designation boundary is shown as following a highway or creek, the center line of such highway or creek shall be the land use designation boundary.

20.2 Residential Land Uses

- (1) **R-SF, Residential Low Density** supports single family residential subdivisions, duplexes and manufactured home parks.
- (2) **SH, Small Holdings** supports low density residential development with minimum parcel sizes in the range of 0.2 ha to 2.0 ha.
- (3) **LH, Large Holdings** supports rural residential development and rural resource land uses on parcels sizes in the range of 2.0 ha to 8.0 ha.

20.3 Rural Land Uses

RR, Rural Resource supports agricultural, rural residential and rural resource land uses with parcel sizes 8.0 ha and larger. The RR designation also recognizes the use of these lands for public utility use, resource extraction, green space and recreation.

20.4 Commercial Land Uses

- (1) **C, Commercial** supports the limited range of local, service and commercial land uses identified in the zoning bylaw.
- (2) **CR, Commercial – Recreation** supports commercial recreation land uses, including campgrounds.

20.5 Industrial Land Uses

I, Industrial supports light industrial land uses.

20.6 Institutional Land Uses

- (1) **INST, Institutional** supports such land uses as utilities, parks and playing fields, educational facilities, churches or places of assembly, and similar developments.
- (2) **OSRT, Open Space, Recreation and Trails** supports greenspaces, recreational amenities, agricultural use, local, regional and provincial parks and other protected areas, such as wildlife corridors.

20.7 Future Expansion Land Uses

- (1) **RE, Resort Expansion Area** supports a variety of land uses including resort recreation, commercial accommodation, residential and other resort related developments and will require inclusion in a resort OCP prior to development.
- (2) **UE, Urban Expansion Area** supports such land uses for the expansion of the City of Fernie's boundaries for residential, serviced commercial, recreation or other land uses.

4. RESIDENTIAL LAND USE

4.1 Background

The plan area encompasses a range of residential land uses. Rural communities in the periphery of Fernie are subject to growth pressures, servicing constraints and concerns regarding loss of rural character and agricultural focus. Rural areas that are not adjacent to developed municipal nodes retain increased rural agricultural characteristics but are also subject to some limited growth pressure. The residential land use objectives have been created to address these concerns.

In consideration of accommodating options for limited growth some areas within the Agricultural Land Reserve (ALR) have been supported for subdivision within the following policies; this is the position of the RDEK and does not reflect the position of the Agricultural Land Commission (ALC). Applicants wishing to subdivide land within the ALR for a relative should be aware that the ALC is not subject to Section 946 of the *Local Government Act*, nor does the ALC believe that encouraging small lot subdivision is supportive of agriculture and consistent with the ALC mandate to preserve agriculture and encourage farming. Policies stating support for subdivision of land for a relative within the ALR are the policy of the RDEK only.

4.2 Objectives

- (1) Maintain minimum parcel sizes that reflect the rural lifestyle and character of the area.
- (2) Maintain the rural and agricultural nature of the plan area by only considering new residential proposals if they are appropriately located and compatible with adjacent land uses so as not to compromise environmental and agricultural values.
- (3) Identify development nodes for future residential development, and direct development to these areas.
- (4) Encourage single family residential development on a range of rural parcel sizes.
- (5) Encourage development that ensures future infill opportunities are not precluded.

4.3 Policies

(1) General

- (a) A limited increase in the number of new lots, generally reflective of the existing rural character of the surrounding parcels, within the plan area is supported. Except as identified within for the specific locations identified in subsection 4.3(1)(c) or Sections 4.3(3)-(11).
- (b) In addition to the policies identified for specific Subareas within Sections 4.3(3)-(11), all rezoning applications within the plan area will be reviewed on an individual basis in relation to the following considerations:
 - (i) compatibility of the proposed lot size and density with existing and surrounding land uses, parcel sizes, local rural character and lifestyle;
 - (ii) the capability to provide onsite disposal in accordance with provincial requirements;
 - (iii) potential impacts of the proposal on the quality and quantity of existing groundwater resources;
 - (iv) integration of the Conservation Subdivision Design provisions outlined in subsection 4.3(1)(d);
 - (v) identification and mitigation of development impacts on environmentally sensitive areas including grasslands,

connectivity corridors, wetlands and riparian areas and old growth forests, in accordance with Section 10 of this plan concerning environmental considerations;

(vii) susceptibility to natural and geotechnical hazards and integration of hazard mitigation strategies, in accordance with Section 11 of this plan concerning development constraints; and

(vii) for land located within the ALR, potential impacts or benefits of the proposed subdivision on the agricultural capability and suitability of both the parcel proposed for subdivision and on neighbouring parcels.

(c) Rezoning applications to enable residential subdivision are generally not supported in the following locations:

(i) along Coal Creek Road;

(ii) between the Dicken Road Subarea and Sparwood, but excluding the Hosmer Subarea; and

(iii) Corbin.

(d) To minimize disturbance to environmentally sensitive areas (ESAs) and preserve agricultural land, future development is encouraged to consider the integration of Conservation Subdivision Design principles by:

(i) identifying and protecting conservation areas such as riparian areas, wetlands, Class 1 ungulate winter range, wildlife corridors, wildlife habitat areas, steep slopes, woodlands, agricultural land and buffers;

(ii) clustering development into nodes of smaller lots in order to preserve larger contiguous ESAs and agricultural zones; and

(iii) utilizing compact neighbourhood design with dwelling units built in close proximity to each other to minimize the overall development footprint and required infrastructure.

Further details on Conservation Subdivision Design can be found in Randall Arendt's *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*. Washington, DC: Island Press, 1996; or the *Conservation Subdivision Design Handbook*. Southwestern Illinois Resource Conservation & Development, Inc., 2006.

(e) Applications for subdivision for a relative pursuant to section 946 of the *Local Government Act* will generally be supported when all of the following conditions have been met, subject to compliance with the zoning Bylaw:

(i) there is no negative impact on the agricultural potential of the parent parcel;

(ii) the subdivision for a relative is kept as small as possible and is located in an area which has the least impact on agriculture;

(iii) the subdivision complies with the requirements of the zoning bylaw, other than with respect to the provisions relating to minimum lot sizes; and

(iv) A statutory declaration has been provided that confirms the parcel is for a relative and that the parcel will not be sold or transferred for a period of 5 years unless required as part of an estate settlement or as required by a lending institution.

- (f) Applications for homesite severance subdivision for a retiring farmer in the ALR will generally be supported when the minimum parcel size is 0.4 ha and the proposal is in compliance with the ALC Homesite Severance Policy, subject to compliance with the zoning bylaw.
- (g) Applications for subdivision in the ALR which improve agricultural capability will generally be supported, subject to compliance with the zoning bylaw.
- (h) The development of a new town site associated with industrial development in the plan area is not supported.
- (i) Multi-family development, containing three or more dwelling units, is directed to resorts and municipalities located within the plan area.
- (j) Development is encouraged to recognize and integrate opportunities to retain and maximize the viewscales.
- (k) Other than temporary uses associated with recreation or resource development activities, rezoning applications to enable development in the Upper Elk Valley north of Elkford are generally not supported.

(2) Home Occupation Policy

Prior to the initiation of the consultation process for this plan, an amendment to the home occupation regulations was proposed in which an expanded range of home occupations would be permitted on rural residential properties. Some area residents expressed concern regarding the potential impacts from the proposed changes in regulations; the proposed amendments were not adopted by the RDEK Board. The following policy identifies when home occupations are supported within the plan area:

- (a) Home occupations in the rural area which are accessory to the residential use, operate on a scale that is appropriate for the area, conform with home occupation regulations in the zoning bylaw, and do not disrupt the residential nature of the surrounding area are supported in order to facilitate diversified economic development.

(3) Morrissey Subarea

Located at the southern end of the plan area, Morrissey encompasses a number of agricultural and rural parcels along the Elk River.

The following policies are intended to maintain the rural, agricultural character of the area:

- (a) Subdivision east of the Elk River is generally not supported.
- (b) Rezoning to enable subdivision of ALR land within the Morrissey Subarea is generally not supported.
- (c) Applications for rezoning to accommodate subdivision in the Morrissey Subarea west of the Elk River should include proposed minimum parcel sizes of not less than 8.0 ha.
- (d) Despite subsection 4.3(3)(c) applications for rezoning in the Morrissey Subarea west of the Elk River with proposed minimum parcel sizes less than 8.0 ha may be considered provided all of the following criteria have been met:
 - (i) the proposed subdivision will have no potential negative impacts on agricultural capability and suitability of both the parcel proposed for subdivision and on neighbouring parcels;
 - (ii) the proposed subdivision involves the creation of a maximum of two new parcels;

- (i) Subdivision of Lot 86 (See 89195I and DF 17606) District Lot 4588 Kootenay District Plan 1299 is generally not supported in order to protect the agricultural value of this parcel.
- (j) Rezoning applications are encouraged to include a commitment to register on title a restrictive covenant or statutory building scheme directing the construction of buildings away from the centre of parcels and towards the corners of parcels to enable future subdivision of the parcel.
- (k) Farm operations, including the raising of livestock and poultry are acceptable and encouraged activities in the Cokato Road Subarea, as permitted by the zoning bylaw.

(5) Fernie Alpine Resort Fringe Subarea

Large undeveloped parcels are located both to the north and south of the Fernie Alpine Resort. In response to consultation with the land owners during the development of the Fernie Area Land Use Strategy these areas were identified as suitable for resort expansion. Given sufficient demand for resort amenities and accommodations, these parcels may be incorporated into the Fernie Alpine Resort Official Community Plan.

The following policies are intended to identify a path for future development consideration for these parcels:

- (a) A variety of land uses associated with resort activities such as resort recreation, commercial accommodation, residential development and other related resort land uses are supported.
- (b) Prior to any resort recreation development activities in the Fernie Alpine Resort Fringe Subarea, the parcels under consideration for development must be included in the Fernie Alpine Resort OCP.
- (c) Prior to any resort recreation development activities in the Fernie Alpine Resort Fringe Subarea, a study of anticipated traffic impacts should be completed. The study should address impacts resulting from the proposed development activity such as traffic congestion, safety issues, and increased volume on Highway 3 between the City of Fernie and Fernie Alpine Resort. In addition, the study should identify the timing of the infrastructure upgrades necessary to address the impacts. Infrastructure upgrades should be completed as recommended in the traffic impact study in conjunction with the development activity.
- (d) To minimize disturbance to environmentally sensitive areas, future OCP policies pertaining to the Fernie Alpine Resort Fringe Subarea should include consideration of the integration of Conservation Subdivision Design principles outlined in subsection 4.3(1)(d).
- (e) Future OCP policies pertaining to the Fernie Alpine Resort Fringe Subarea should address potential hazards such as flooding, alluvial and debris flow fans, avulsion, geotechnical & avalanche.
- (f) Future OCP policies pertaining to the Fernie Alpine Resort Fringe Subarea should be compatible with subsection 9.3(10) concerning the development of a non-motorized trail connecting Mt Fernie Park Road and Fernie Alpine Resort.
- (g) Future OCP policies pertaining to the Fernie Alpine Resort Fringe Subarea should address the protection of environmentally sensitive areas.

(6) Lizard Creek Subarea

During the public consultation process the Lizard Creek Subarea was identified as encompassing a range of important values. Examples include agricultural land as well as environmental assets such as wildlife habitat, connectivity corridors and riparian areas. The future vision for the area

9. OPEN SPACE, RECREATION AND TRAILS

9.1 Background

The plan area is well known for its natural beauty and outdoor recreation opportunities. Both assets are appreciated for their aesthetic qualities but also serve as economic drivers of the region through development interest and tourism opportunities. The preservation of open spaces and recreation opportunities is recognized as important to the long term future of the plan area.

Under the regional park function, the RDEK operates two parks in the area: the Elk Valley Regional Park and the West Fernie – Thompson Community Park. The Elk Valley Regional Park, located halfway between Sparwood and Elkford includes several picnic shelters, barbecue pits, sports fields, baseball diamonds, horseshoe and bocce pits and washroom facilities. The West Fernie –Thompson Community Park is an undeveloped green space which follows the banks of the Elk River through West Fernie and includes a number of walking trails.

9.2 Objectives

- (1) Ensure recreational activities are compatible with the rural character of the plan area.
- (2) Provide local parks, trails and other outdoor recreation opportunities in locations and in sufficient quantity to be available and accessible, where possible, to all members of the community, including a broad spectrum of activities and lifestyle types.
- (3) Recognize and protect recreational features with tourism potential.

9.3 Policies

- (1) The protection of existing green space is encouraged.
- (2) Continued operation of the Elk Valley Regional Park for group and individual recreational day use pursuits by residents of the Elk Valley is supported.
- (3) The West Fernie–Thompson Community Park is recognized as an undeveloped regional park. Public access to the existing walking trails in the park is supported.
- (4) Continuation of the Access Guardian Program, under which a backcountry Access Guardian is hired by the Conservation Officer Service to perform education, public relations, monitoring and enforcement duties within the Southern Rocky Mountain Management Plan area, is supported.
- (5) The provision of a broad spectrum of outdoor recreation opportunities, suitable for both residents and tourists, that respect the need to protect resource values, is supported.
- (6) Preservation and enhancement of existing access routes to the Elk River for recreation purposes is supported. Any access improvement to the Elk River should minimize impacts on riparian areas and consider cumulative effects on the Elk River.
- (7) Grave Lake is recognized as the only large, accessible lake in the Elk Valley where a variety of lake-oriented recreational opportunities are possible. Continued management of the land at the southwest end of Grave Lake as a public campground, currently managed by the Sparwood Fish & Wildlife Association, is supported in order to ensure public access to both land and water based recreation opportunities.
- (8) The development of intercommunity trail connections linking the rural area to municipalities for daily foot and cycle commuting is supported.
- (9) The development of a trail connecting the City of Fernie and Fernie Alpine Resort for daily foot and cycle commuting is supported and encouraged. The preferred route for this trail, identified through consultation with the Ministry of Transportation and Infrastructure and the City of Fernie, follows

Highway 3 and the Fernie Ski Hill Road. The intended route of the trail is located within the road right of way except where it crosses two parcels located to the west of Highway 3 and to the east of The Cedars development within the City of Fernie municipal boundary. The legal description of these parcels is:

- (i) That Part of District Lot 5237 Kootenay District Shown Outlined In Red On Explanatory Plan 362211; and
- (ii) That Part of District Lot 5237 Kootenay District Shown Outlined In Red On Plan 317251 Except Part Included in Plan 4201.

To facilitate development of the trail, dedication of land on these parcels to the Ministry of Transportation and Infrastructure as a right of way for the construction of the trail is supported.

- (10) The development of a trail connecting Mt Fernie Park Road and Fernie Alpine Resort that is not adjacent to the highway is supported. The trail is intended to provide an aesthetic walking and biking access route from the south end of Anderson Road to Fernie Alpine Resort. At the time of drafting of this plan, the route of this trail, which has yet to be specifically identified, would first cross a parcel on the south side of Anderson Road located within the City of Fernie boundaries. Existing development plans for this parcel incorporate the trail.

To facilitate development of the trail, rezoning applications for the following parcels should consider the integration of strategies that enable development of the trail:

- (i) The North Half of District Lot 4126 Kootenay District; and
- (ii) The East Half of District Lot 4129 Kootenay District.

- (11) Prior to the creation of additional mountain biking and hiking trails in the Fernie area, the development of a trails master plan which coordinate trail planning for municipal and rural areas, and includes input from stakeholders such as the Fernie Trails Alliance, is encouraged in order to limit the impact of trail development on wildlife, environmental values and other users.

- (12) The development of trails master plans for the Sparwood and Elkford areas which coordinate trail planning for municipal and rural areas is supported.

- (13) Adherence to trail building best practices in the development of mountain biking and hiking trails, such as maintaining reasonable trail densities, is encouraged in order to limit the impact of trail development on wildlife and environmental values. Endorsement of trail building activities by the provincial government for Crown land or the land owner for private land is considered a necessity prior to construction.

- (14) The development of recreational trails in the plan area to support local recreation and tourism activities is supported. Further recreational trail development should consider cumulative effects of trail building and other development activities in the plan area and should comply with recommendations of the SRMMP.

- (15) The establishment of a safe alternative to biking on Cokato Road is supported in order to reduce the risk to cyclists of accidents between motor vehicles and mountain bikers using Cokato Road for trail access.

- (16) Proposals for the use of alpine areas for commercial mechanized activities such as heli-skiing and heli-hiking shall be supported only if they do not conflict with established non-mechanized activities and where environmental impacts have been taken into consideration.

- (17) The development of a nordic ski area located between Mt Fernie Park Road and Fernie Alpine Resort is supported. The trail developer is encouraged to consider accommodating summer use for proposed trails in the planning and development process.

- (18) Trail users are encouraged to respect private property.
- (19) The RDEK supports local effort in establishing a site for local recreation purposes on the floodplain adjacent to the Elk River, north of the Highway 3 bridge located just south of Hosmer.
- (20) Community gardens on both public and private lands are encouraged where appropriate and feasible.
- (21) Opportunities to utilize underused areas such as parks and public open spaces to grow food are encouraged.

10. ENVIRONMENTAL CONSIDERATIONS

10.1 Background

Environmental values represent potential development constraints in the Elk Valley. Environmental values were consistently one of the most referenced concerns throughout the public consultation process for this plan. It is clear that residents of the plan area place a high level of importance on the natural environment and prioritize development that will not impact these areas in a negative way.

The wildlife resources of the plan area were described as "singularly unique" by W. D. Hornaday in 1905 and have retained that importance. The plan area is regarded as an important area in Canada in terms of species diversity and abundance. This reputation is generated by the existence of viable populations of big game species such as grizzly and black bear, mountain goat and big horn sheep; plus numerous members of the remaining big-game species (except caribou); and by good representation in the upland and migratory game bird categories, sixteen species of fur-bearers and over 200 non-game species.

The area is even more significant on a provincial and regional basis. The moose population is the highest for any area outside the northern part of the province, while the Elk and Flathead drainages are important regionally in their capability to support elk, white-tail and mule deer populations. Also contributing to provincial importance are the unique alpine grasslands in the Todhunter Creek area, which back onto other wildlife habitat in Alberta and provide very high capability winter range for big horn sheep.

10.2 Objectives

- (1) Ensure that development causes minimal degradation of soil, air and water systems.
- (2) Protect the ground water, surface water sources and community watersheds for domestic water and irrigation use in order to ensure sustainable water supplies.
- (3) Ensure that wildlife corridors and habitat connectivity are not impaired by future development.
- (4) Minimize the spread of invasive species.
- (5) Recognize the contribution that the natural environment and wildlife make to the economy of the plan area.

10.3 Policies

(1) Water and Air Quality

- (a) Activities which could adversely affect the quality of water taken from an underground aquifer needed for domestic purposes are generally not supported. All such activity should be in accordance with appropriate provincial legislation and/or regulations.
- (b) The Watershed Protection Zone within the Elk Valley Zoning Bylaw is encouraged to be maintained. Development within the Watershed Protection Zone should be limited to those activities that do not have a negative impact on water quality or quantity.
- (c) Areas which are designated as Watershed Protection areas on **Schedules D and D1-D8** shall be afforded the maximum possible protection by the implementing zoning bylaw. Where Crown land within such a watershed is proposed for resource extraction or use which could impair the quality or critically reduce the quantity of water obtainable from the watershed, the provincial agencies having jurisdiction are encouraged to ensure that existing and potential water users are involved in watershed management decision-making and that the proposed use is carried out in accordance with best practices for watershed management.

- (d) Development in the plan area should consider the impact of associated water usage requirements on groundwater resources.
- (e) Property owners are encouraged to maintain and upgrade onsite septic systems in order to decrease potential nutrient loading and bacterial inputs to both groundwater and surface water resources.
- (f) Resource extraction and development within watersheds should not compromise watershed integrity or the ability to utilize the water sources for domestic use.
- (g) Initiatives to protect air quality in the plan area such as the conversion of inefficient wood burning appliances to high efficiency models and the implementation of smart burning practices are supported.

(2) Water Bodies, Wetlands and Riparian Areas

- (a) Development is encouraged to avoid streams, wetlands and riparian areas and to provide appropriate development setbacks and buffer areas.
- (b) Approved development and associated management activities such as dredging within or adjacent to water bodies, wetlands, or riparian areas should be conducted following appropriate best management practices.

(3) Environmentally Sensitive Areas

- (a) Future development should minimize disturbance to the integrity of environmentally sensitive areas (ESAs). ESAs within the plan area include, but are not limited to, habitat of red and blue listed species and areas identified on **Schedules E1-E3** such as wetlands and riparian areas, grassland ecosystems, old growth forests, and wildlife habitat areas.
- (b) Prior to development within ESAs, developers are encouraged to complete an environmental inventory, assess potential environmental impacts of the proposed development, and identify appropriate mitigation strategies such as the integration of Conservation Subdivision Design provisions outlined in subsection 4.3(1)(d).
- (c) With support from area residents and as resources allow, the RDEK will consider the creation of a development permit area to guide development within ESAs.
- (d) The use of conservation covenants to preserve the natural values of environmentally sensitive areas is supported. The covenants may be held by the RDEK and/or the provincial government.
- (e) Retention of class 1 and class 2 ungulate winter range identified on **Schedules E1-E3** is encouraged and supported. Development applications should consider appropriate strategies to minimize the impact of development on ungulate winter range.

(4) Wildlife Habitat

- (a) Agricultural operations considering the use of wildlife fencing are encouraged to consider wildlife movement, habitat, and access to water when determining fence style and placement.
- (b) Wildlife corridors should be considered in the development of transportation networks.

11. DEVELOPMENT CONSTRAINTS

11.1 Floodplains, Alluvial and Debris Flow Fans, and Geotechnical Hazards

(1) Background

A number of watercourses in the plan area, including Coal Creek, Lizard Creek, and the Elk River represent significant flood hazards. Development is generally discouraged in flood prone areas unless flood protection works are in place. At a minimum, the RDEK prescribes minimum flood construction levels and setbacks from flood prone watercourses in the rural area. The 200-year flood level, floodplains, alluvial fans, and debris flow fans areas are shown on **Schedules F1-F2**. The 200-year flood level mapping is only available for portions of the Elk Valley.

Due to the steep mountainous terrain surrounding the Elk Valley, extensive sections of the plan area are subject to avalanche activity. This avalanche activity is generally not a problem for residential development in the valley itself. The main exception is the extreme western edge of the Elk Valley floor within and just north of the District of Sparwood. Avalanche hazards are identified on **Schedules G1-G3**.

The Elk Valley is located within the Rocky Mountains and many parcels encompass topographical features. Slopes can lead to geotechnical hazards and should be considered as part of the development approval process. Steep slope areas are identified on **Schedules H1-H3**.

Areas of the Elk Valley are subject to slope instability. Under certain moisture conditions, these slopes have the potential to fail, as has previously happened in a subdivision within the City of Fernie.

(2) Objectives

- (a) Ensure public safety by discouraging development in unsuitable areas such as floodplains, alluvial fans, debris flow fans, avalanche zones, and areas subject to geotechnical hazards such as slope, erosion and landslip.
- (b) Prevent or minimize the expenditure of public money in damage compensation or mitigation resulting from development of lands subject to hazardous events or situations.

(3) Policies

- (a) Minimum setbacks and flood construction levels for development near the ordinary high water mark of water bodies and watercourses are established within the Elk Valley Zoning Bylaw. All floodplain requirements must be met unless a site specific exemption has been granted by the RDEK.
- (b) The development of land susceptible to flooding, including land located within the 200-year flood level and active floodplain identified on **Schedules F1-F2**, is discouraged. Lands susceptible to flooding should not contain structures used for habitation. Suitable uses for land susceptible to flooding include but are not limited to parks, open space, recreation or agricultural uses.
- (c) Applications to vary the minimum usable site area requirements contained within the zoning bylaw will generally not be supported.
- (d) The development of land located within an alluvial or debris flow fan identified in **Schedules F1-F2** is strongly discouraged. Specific geotechnical studies may be required as per provincial legislation for development of land susceptible to the hazard.
- (e) Rezoning applications for any parcels containing an alluvial or debris flow fan identified in **Schedules F1-F2** must incorporate strategies that ensure the development will not be impacted by the hazards. Examples of suitable strategies include:

- (i) completion of a qualified professional engineer's report identifying potential hazards and appropriate hazard mitigation measures;
 - (ii) registration of a covenant which establishes the entire alluvial or debris flow fan identified in **Schedules F1-F2** as a "no-build" area which may be removed following the implementation of recommendation in a report by a qualified professional engineer; and
 - (iii) registration of a covenant which designates building envelopes outside of the entire alluvial or debris flow fan identified in **Schedules F1-F2**.
- (f) Upgrades to the flood protection works within the Hosmer area, Cokato area and the area between Sparwood and Elkford are supported.
 - (g) Completion of a study to update floodplain mapping within the Elk Valley is supported. Coordination of floodplain mapping between the provincial government, the RDEK and Elk Valley municipalities is encouraged.
 - (h) The development of land susceptible to avalanche hazard including but not limited to those areas identified in **Schedules G1-G3** is discouraged.
 - (i) In accordance with the Elk Valley Zoning Bylaw, development on land with slope equal to or greater than 15%, susceptible to erosion and landslip is discouraged. Land susceptible to erosion and landslip should be used for open space and passive recreation purposes. Any development on lands with slope equal to or greater than 15% is subject to the development variance permit process.
 - (j) Development activity that occurs on a slope that is equal to or greater than 15%, susceptible to surface erosion, gulying, landslides or landslip must ensure that adequate protection measures are incorporated into development designs. Specific geotechnical studies prepared by a qualified professional may be required prior to issuance of a building permit or other development approval as per provincial legislation.
 - (k) Development of lands with slopes equal to or greater than 30% is discouraged and is subject to a geotechnical assessment and the registration of a covenant identifying the hazard and remedial requirements as specified in the geotechnical assessment.
 - (l) Removal or deposition of soil within the plan area must be carefully reviewed for erosion, drainage or sedimentation concerns, in addition to potential impacts on agriculture.
 - (m) The development of comprehensive mapping for the Elk Valley to identify terrain stability hazard ratings related to soil types is encouraged. The intent of such mapping would be to provide a framework for assessing development application according to the risk associated with terrain stability, and to discourage development in hazardous areas. Upon completion of the terrain stability hazard ratings this plan should be amended to integrate a schedule depicting the hazard ratings. This schedule will then be incorporated into the RDEK development application process in order to provide guidance as to when a site specific geotechnical assessment by a qualified professional would be required.

11.2 Interface Fire Hazard & Public Safety

(1) Background

Decades of forest fire suppression in the East Kootenay have contributed to an altered ecosystem characterized by forest in-growth and the

accumulation of forest fire fuels. This situation poses a significant threat to communities in the Elk Valley and is referred to as the interface fire hazard. The plan area is surrounded by forest and has significant stands of coniferous trees interspersed with developed areas, both of which increase the risk from wildfire. The fire hazard is being heightened due to the current High Mountain Pine Beetle infestation and resulting dead and dry Pine snags.

The history of Fernie is closely tied to catastrophic fire events. This threat can be reduced by using fire resistant building materials, introducing landscaping practices designed to limit the spread of fire, coordinated training between urban and wildland firefighters and by the proper location of related infrastructure such as fire hydrants and escape routes. The interface fire hazard for the plan area is shown on **Schedule I**.

Residents of the Fernie rural area are provided fire protection through an agreement with the City of Fernie fire department. The residents of Hosmer are provided fire protection by the Hosmer Fire Department operated by the RDEK. The residents of the Upper Elk Valley are provided fire protection through an agreement with the District of Sparwood.

(2) Objectives

- (a) Support local and regional ecosystem restoration initiatives on Crown and private land.
- (b) Mitigate the risk associated with interface fire hazard to Elk Valley residents and visitors.
- (c) Encourage the adoption and implementation of FireSmart principles and wildfire mitigation measures by property owners, occupiers and developers.
- (d) Investigate the creation of fire protection service areas as requested by residents.

(3) Policies

- (a) Applications for rezoning of parcels which include land rated as high for interface fire hazard on **Schedule I** will be considered with respect to the following FireSmart principles, as appropriate to the nature of the application:
 - (i) ability to integrate fire fuel modified areas including an area of a minimum of 10 metres in radius to be maintained clear of combustible material surrounding buildings and structures;
 - (ii) integration and promotion of building materials that minimize the risk of fires starting or spreading;
 - (iii) provision of a minimum of 2 vehicular access/egress routes to allow for simultaneous access for emergency equipment and evacuation of people;
 - (iv) availability of sufficient water capacity for firefighting activities;
 - (vi) the implementation of phasing or staging of development to minimize the interface fire risk; and
 - (vii) availability of firefighting equipment and trained personnel as appropriate for the proposed development.
- (b) The development and dissemination of public education messages about protecting communities from wildfire is supported.
- (c) The creation of fire protection service areas, as requested by residents is supported.

12. ARCHAEOLOGICAL AND HERITAGE RESOURCES

12.1 Background

Part of the plan area's heritage includes archaeological sites—the physical evidence of how and where people lived in the past. This archaeological history extends back thousands of years through inhabitation and utilization of the land and its resources by the Ktunaxa. For most of the time people have lived in this area, no written records were made. Cultural heritage sites and oral tradition are the only evidence of this rich history extending back many thousands of years. The term “cultural heritage sites” includes, but is not limited to, archaeological/heritage sites and objects, cultural/heritage landscapes, sacred/spiritual sites and sites with cultural value. It encompasses sites and objects regardless of age.

The plan area contains recorded archaeological sites and is also likely to contain many unrecorded archaeological and cultural heritage sites. The provincial government protects both recorded and unrecorded archaeological sites through the *Heritage Conservation Act*. Archaeological sites dating before 1846 are protected under the *Heritage Conservation Act* and must not be disturbed or altered without a permit from the Archaeology Branch. This protection applies to both private and Crown land and means that the land owner must have a provincial heritage permit to alter or develop land within an archaeological site.

Knowledge of cultural heritage sites is gained through the provincial database of recorded archaeological sites and consultation with the Ktunaxa Lands & Resources Agency. An Archaeological Overview Assessment (AOA) has not been conducted for the plan area but the completion of such an overview is supported within this plan.

The heritage resources of the plan area include remnants of earlier mineral and oil exploration activities in the Elk Valley. Old mine buildings and facilities in various stage of disrepair can be found scattered between Fernie and Crowsnest Pass. Perhaps the most important mining related heritage site is the Hosmer Mine Site and associated remains, not so much because of the importance of the former mine but because the remains are in relatively good condition, accessible and representative of an important phase in the development of one of British Columbia's prime resource industries. The three volumes entitled Hosmer Heritage Restoration Project, completed in early 1985, provides the most complete historical documentation of the Hosmer Mine.

12.2 Objectives

- (1) Ensure that property owners are aware of their responsibilities under the *Heritage Conservation Act* when conducting land-altering activities.
- (2) Recognize and communicate the potential for discovery of cultural heritage sites and artifacts during the development process.
- (3) Avoid unauthorized damage and minimize authorized damage to protected archaeological sites on private land in accordance with the *Heritage Conservation Act*.
- (4) Recognize and support the need for an Archaeological Overview Assessment for private land located within the plan area.
- (5) Preserve and develop the heritage resources of the plan area.

12.3 Policies

- (1) Initiatives that protect archaeological sites and cultural resources within the plan area are supported.
- (2) Undertaking an Archaeological Overview Assessment (AOA) for the plan area is supported. The intent of the AOA is to identify areas with potential to contain archaeological sites and recognize known archaeological sites. Upon completion of the AOA the plan should be amended to integrate a schedule depicting the areas of archaeological distribution and potential. This schedule should then be incorporated into the RDEK development application process in order to alert applicants to their obligations under provincial heritage legislation.

- (6) Property owners and occupiers are encouraged to ensure that maintenance programs for onsite sewer systems are followed in accordance with the appropriate provincial regulations.
- (7) Requests for the RDEK to take over the operation and maintenance of existing or proposed community water or sewer systems will only be considered in relation to the requirements of the RDEK Subdivision Servicing Bylaw, the RDEK Board policy related to the condition of the utility system and the necessary service establishment approvals.
- (8) Where onsite sewage disposal is utilized for new or redesigned septic systems the use of Type 1 septic systems as defined by the Sewerage System Regulation under the *Health Act* is preferred where site conditions permit their installation. Type 1 systems are generally preferred as they are more reliable over time if the maintenance program is followed.
- (9) The plan supports the creation of alternate forms of transportation, such as public transportation and cycling routes.
- (10) Development that does not create new accesses onto Highway 3 or encumber existing access or egress points is preferred.
- (11) Extension of the portion of Highway 3 within Hosmer designated as a speed control zone is supported.
- (12) A process to identify, evaluate and select the preferred conceptual alignment for an alternate access/egress to Fernie Alpine Resort is encouraged.
- (13) A review of the Fernie Alpine Resort/Highway 3 intersection to determine if there is a need for additional lighting or signage is supported.
- (14) The topography of the Elk Valley has determined the linear nature of settlement and the major traffic route system, consisting of Highway 3 and the Upper Elk Valley Road (Highway 43). It is inevitable that these roads will carry local traffic, however, to aid the flow of traffic, the use of these routes to provide access to new residential lots should be minimized.
- (15) Upgrading the Forest Service Road north of Elkford in order to accommodate summer access is supported. However, the development of areas between Elkford and the Elk Pass along this road for commercial or residential purposes is not supported in recognition of this area's significant natural scenic and environmental values.
- (16) Proposals to upgrade the highway connection between British Columbia and Alberta over Elk Pass as an all-weather, year-round road link is encouraged to be assessed with regard to the nature and distribution of the impacts.
- (17) Federal and provincial agencies are encouraged to assist in providing lighting, fencing and a microwave landing system necessary to complete the Elk Valley Airport so that it can accommodate a full range of air services.
- (18) Increased residential density in the vicinity of the Elk Valley Regional Airport is generally not encouraged because of safety and noise considerations. However, in view of the large amount of private land adjacent to the Airport, rezoning applications may be considered in accordance with the Sparwood to Elkford Subarea residential land use policies included in subsection 4.3(11).

14. GREENHOUSE GAS (GHG) EMISSIONS REDUCTION AND CLIMATE CHANGE

14.1 Background

Local governments are required to establish targets and identify specific policies and actions for the reduction of greenhouse gas emissions. Consequently, the RDEK has established a greenhouse gas reduction target of 17% below 2007 levels by 2020. Policies that address this target promote reductions in the consumption of energy and emission of greenhouse gases through proactive land use, solid waste management and transportation planning.

14.2 Objectives

- (1) Recognize the need to plan for the reduction of greenhouse gas emissions and climate change.
- (2) Support policies and actions that will contribute to the RDEK's commitment for a 17% reduction in greenhouse gas emissions.

14.3 Policies

- (1) Green building standards, such as consideration of opportunities to minimize the energy and resource requirements of buildings and structures, is encouraged for all development.
- (2) The integration of energy efficient and renewable energy infrastructure and utilities is encouraged.
- (3) The utilization of passive solar energy through solar orientation is encouraged.
- (4) The location of future development within existing development nodes is encouraged.
- (5) The use of compact development footprints is encouraged within the plan area.
- (6) The reduction of greenhouse gas emissions generated from solid waste landfills through the diversion and reduction of solid waste is encouraged.
- (7) The integration of water efficient landscape features such as xeriscaping and the use of native vegetation is encouraged.

17. PRIVATELY MANAGED FOREST

17.1 Background

The purpose of this plan is to provide policy direction for the development of private land in the Elk Valley area. Included in the plan area are large areas of privately managed forest. Activities on this land are often not under the jurisdiction of the RDEK, but can have a significant impact on the local community. The managed forest is subject to the *Private Managed Forest Land Act* and regulation. Examples of privately managed forests within the plan area are Tembec's Managed Forest 27, Canfor's Managed Forest 471 and Galloway Lumber's Managed Forest 37 just south of Mount Fernie Park.

Recognizing that it may not be in the RDEK's area of responsibility, this plan contains statements regarding land use activities on managed forest land. This plan will not alter the current use of the managed forest land. It will, however, provide guidance regarding suitable future use when they are no longer part of the active managed forest. Any designations that the plan prescribes for this land are not meant to impact the current forest operations, only to provide future consideration. The plan may also outline items of concern that should be taken into account when any development occurs on the subject property, but is not meant to supersede existing permits, regulations or agreements.

17.2 Objectives

- (1) Preserve the economic benefit of the mineral and forest resource base which supports the primary economic activity in the plan area.
- (2) Retain public access opportunities to Tembec's private Managed Forest 27 adjacent to the City of Fernie.
- (3) Review the potential for managed forests within the plan area to be used for alternate purposes and to determine what acceptable alternatives are.

17.3 Policies

- (1) Maintenance of public access to land within Tembec's Managed Forest 27 is encouraged, subject to posted restrictions and seasonal closures.
- (2) Preservation of the natural beauty and tourism potential of the plan area by minimizing visual impacts when harvesting timber within the plan area is encouraged.
- (3) Portions of Galloway Lumber's Managed Forest 37 are generally supported for future resort expansion and rural uses, should they be removed from the managed forest classification.
- (4) The portions of Tembec's Managed Forest 27 that remain in the RDEK are not currently supported for residential development at densities above the existing Rural Resource, RR-60, zoning. Should applications for change be received, development in that area will require further assessment and plan amendments.
- (5) An agreement between Tembec and the Fernie Trails Alliance is recognized regarding trails located on Tembec's Managed Forest 27; the agreement stipulates that the Fernie Trails alliance will maintain existing trails and refrain from building new trails on these lands.