

WILDLIFE CORRIDOR

APPLICATION



SMITH CREEK

AREA STRUCTURE PLAN



WELCOME TO THE TSMV WILDLIFE CORRIDOR AND SMITH CREEK ASP OPEN HOUSE

The open house will provide information on the proposed Along Valley Corridor, Pigeon Mountain Across Valley Corridor, realigned Stewart Creek Across Valley Corridor, and the proposed Smith Creek Area Structure Plan (ASP).

The Smith Creek Project Team, wildlife biologists, representatives from TSMVPL, and Alberta Environment and Parks are here to discuss the proposed wildlife corridors and ASP, answer questions, and listen to any feedback to you may have.



PROVINCIAL DESIGNATION OF A WILDLIFE CORRIDOR

PURPOSE

On January 26, 2017, QuantumPlace Developments Ltd. (QPD), on behalf of Three Sisters Mountain Village Properties Ltd. (TSMVPL), submitted an application to Alberta Environment and Parks (AEP) for a wildlife corridor to help facilitate wildlife connectivity between habitat patches in the Bow Valley.

The wildlife corridor is proposed in accordance with the 1992 Natural Resources Conservation Board (NRCB) Decision Report #9103.

Concurrent with the wildlife corridor application, TSMVPL has submitted an Area Structure Plan (ASP) application for the lands adjacent to the proposed wildlife corridor, generally known as Smith Creek located in Three Sisters Mountain Village.

The Province has completed the internal review of the wildlife corridor application and is now seeking public input.

PROCESS AND TIMELINE*



* timelines are tentative

FEEDBACK

Mail

Director, South Saskatchewan Region
Alberta Environment and Parks
2938 11th St. NE, Calgary, Alberta T2E 7L7

Email

AEP.wildlifecorridor@gov.ab.ca

Feedback will be gathered at the open house, summarized and provided to the Province for consideration.

NRCB REQUIREMENTS FOR WILDLIFE CORRIDORS IN TSMV

In 1991, Three Sisters Golf Resorts Inc. (former owners of TSMV lands) submitted an application to the Province of Alberta for a recreation and tourism project in the Bow Valley.

In 1992, the Natural Resources Conservation Board approved residential development, supporting local and tourist oriented commercial infrastructure such as golf courses, trails and other recreational amenities. The approval for development was balanced with conditions designed to protect wildlife. A condition of approval for the NRCB decision states: *“Three Sisters shall incorporate into its detailed design, provision for wildlife movement corridors in as undeveloped a state as possible, and prepare a wildlife aversive conditioning plan, both satisfactory to Alberta Forestry, Lands and Wildlife”* (Currently known as Alberta Environment and Parks [AEP]).

The NRCB (1992) requires the following corridor attributes, and are the only criteria identified by the NRCB for use in TSMV:

- Corridor designation should occur at a regional scale and there must be linkages between corridors on private and provincial lands;
- Primary wildlife corridors should not be narrower than 350 meters, except under unusual circumstances;
- Width and location of corridors should be reviewed with all wildlife species expected to use them in mind;
- Roads, pathways and utility lines should be bundled to minimize corridor fragmentation;
- Corridors should correspond with known movement routes of animals; and
- Wildlife corridors should be legally designated by the Province of Alberta.

Bow Corridor Ecosystem Advisory Group (BCEAG) Guidelines do not apply to TSMV.

EXISTING AND APPROVED WILDLIFE CORRIDORS IN TSMV

The Province approved an Along Valley Corridor with secondary corridors in 1998. The Along Valley Corridor was modified and two secondary corridors were designated in 2002; the current Stewart Creek and Tipple Across Valley Corridors.

The existing Along Valley, and Tipple and Stewart Creek Across Valley Corridors adjacent to the Resort Centre Area Structure Plan (ASP) Area are fully approved. The discussions with the Province have not included widening the Along Valley Corridor adjacent to the Resort Centre ASP area.



HOW WAS THE SMITH CREEK CORRIDOR ALIGNMENT DETERMINED?

The Smith Creek corridor proposal was developed by QPD (on behalf of TSMV) using input from the public, a Community Advisory Group, the Province of Alberta, Canmore stakeholders and several experienced biologists and other specialists, while taking into account physical or topological constraints and the requirements of the 1992 NRCB decision.

The community in Canmore was engaged to provide input into the design of the Smith Creek ASP, including helping to define the wildlife corridor boundaries.

QPD worked with the community and other stakeholders to develop a wildlife corridor design that balances wildlife needs with other factors including:

- The needs of the community;
- The planning and servicing requirements of the Town;
- The needs of wildlife for movement as per the NRCB decision; and
- Requirement to have an economically feasible development in Three Sisters.

After taking community and stakeholder feedback into consideration, the final corridor width, length and position of the corridor was determined by TSMV in consultation with Alberta Environment and Parks (AEP), the Town of Canmore, and specialists and biologists. Public input will be considered by the Province and may be used to support the AEP decision making process.



PROPOSED WILDLIFE CORRIDOR

The proposed Along Valley Corridor is 625 meters wide at its narrowest point, and 470 meters below (as on maps) a generally continuous 25 degree line. The width of the corridor significantly exceeds the NRCB requirement of 350 meters for primary corridors.

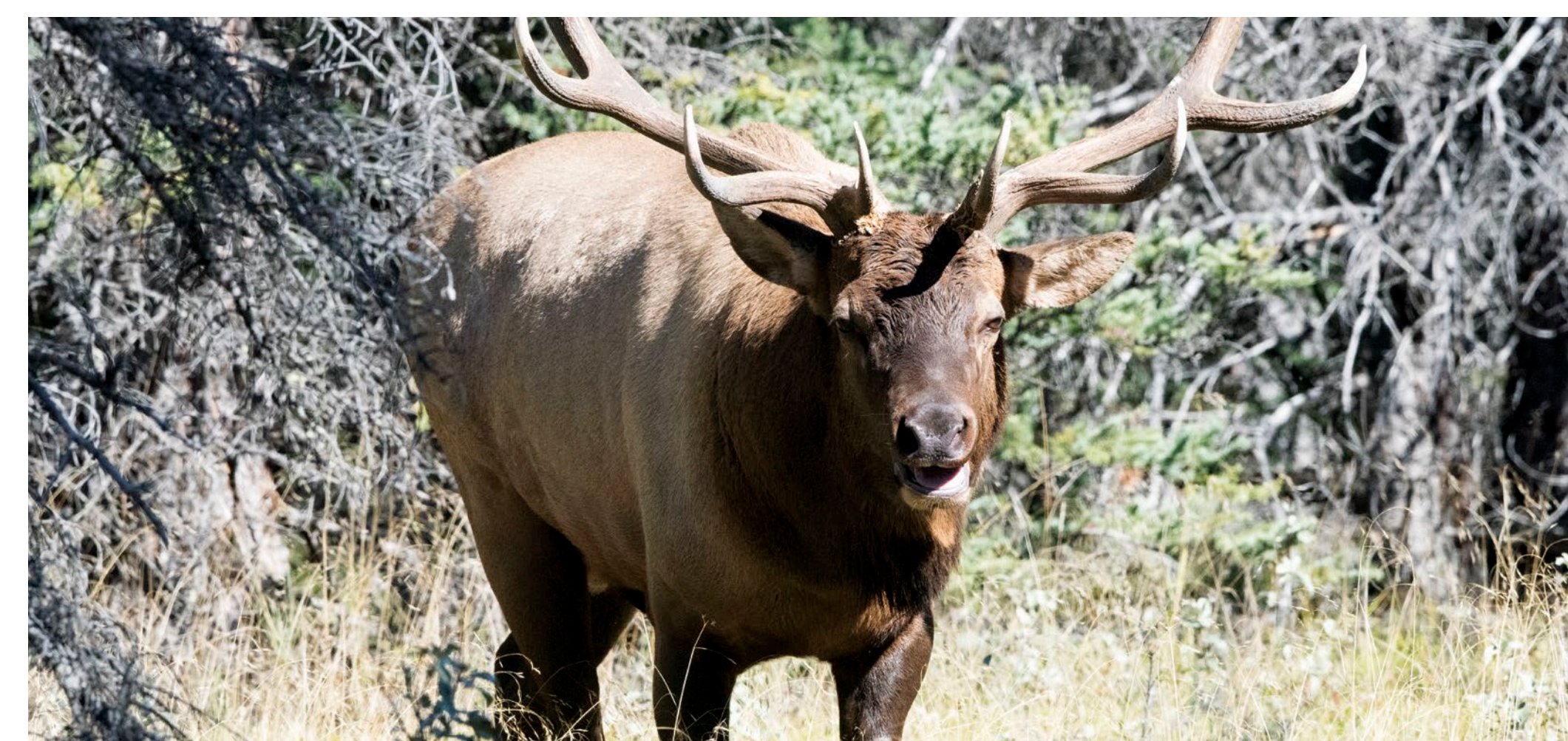
Wildlife movement has been demonstrated throughout the entire width of the proposed Along Valley Corridor using remote camera data, snow-tracking, and locations obtained from GPS collared animals. Habitat models for grizzly bears, wolves, and cougars indicate that habitats within the proposed corridors.

Two secondary corridors are proposed, with the following characteristics:

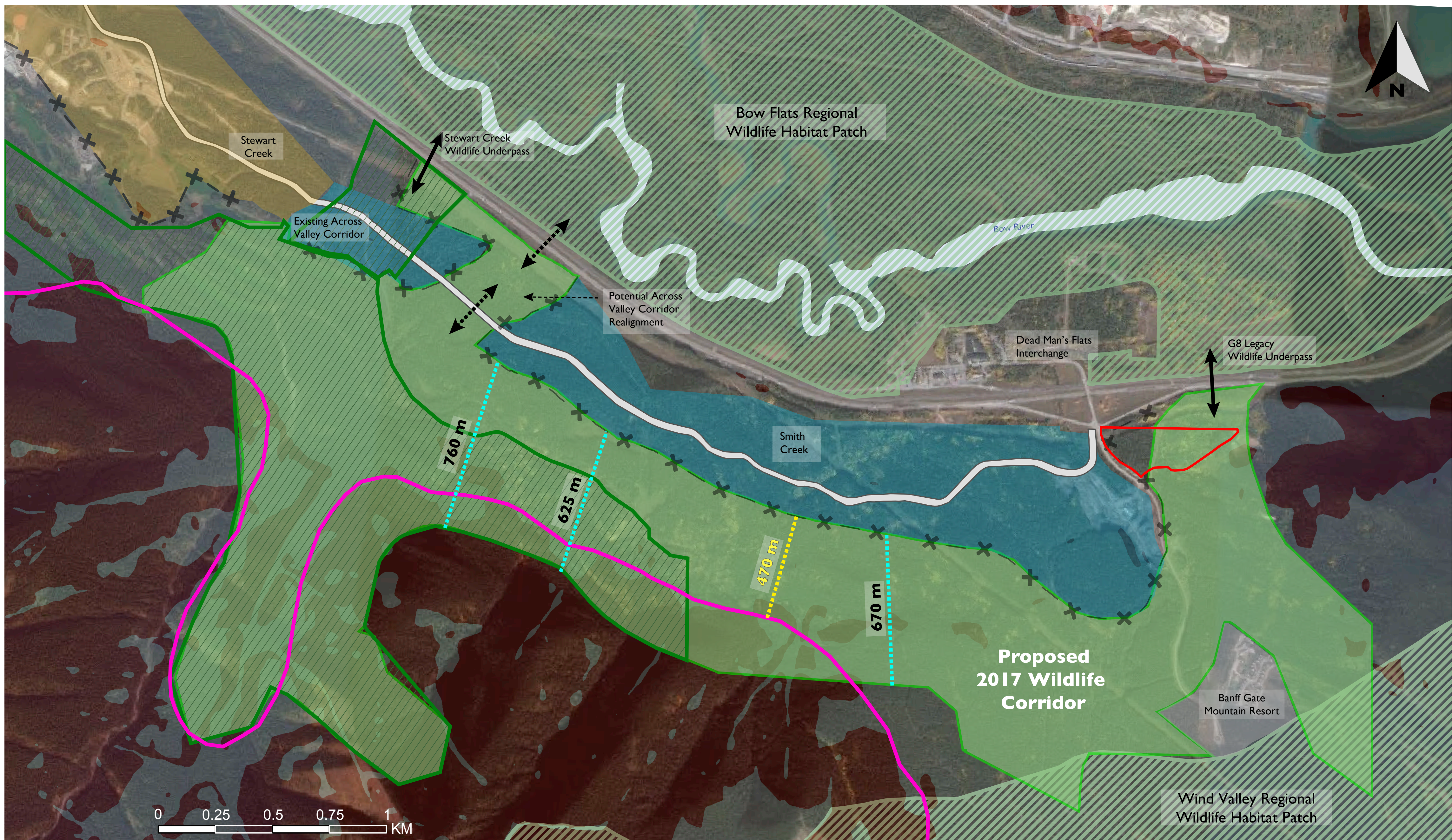
- the Pigeon Mountain Across Valley Corridor is proposed to be 352 meters wide at its narrowest point;
- the current Stewart Creek Across Valley Corridor averages 354 meters over its 600 meters length and is 293 meters in width at its narrowest point.

The Stewart Creek Across Valley Corridor was approved in 1998 but is proposed to be moved approximately 300 meters east to align with a potential steep creek hazard as recommended by the Town of Canmore.

- The realignment requires a new Trans-Canada Highway underpass and is therefore subject to Provincial and Federal approval;
- The realignment also requires design considerations for the Three Sisters Parkway, including an additional underpass beneath the Three Sisters Parkway to help separate human use from wildlife in the proposed optional corridor.
- Original idea for realignment arose from professionals at the Town of Canmore, and was reviewed extensively for wildlife movement viability before incorporating in the submission to the Province.



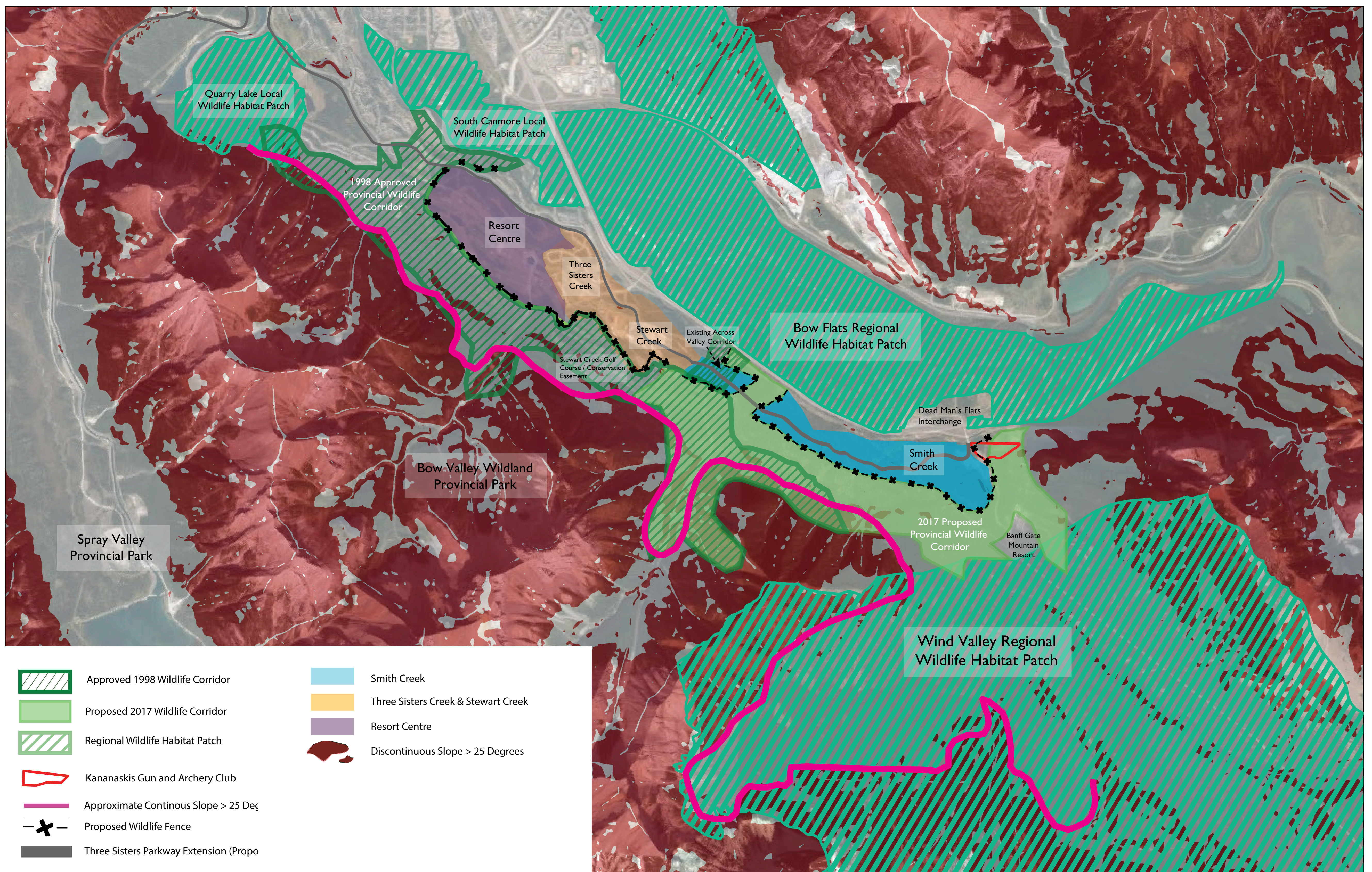
PROPOSED SMITH CREEK WILDLIFE CORRIDORS



- | | | | |
|---------------------------------|--|---|-----------------------------|
| Approved 1998 Wildlife Corridor | Width of Proposed Wildlife Corridor | Narrowest Width of Along Valley Corridor Below Continuous Slope of 25 Degrees | Proposed Wildlife Underpass |
| Proposed 2017 Wildlife Corridor | Approximate Continuous Slope > 25 Degrees | Discontinuous Slope > 25 Degrees | Existing Wildlife Underpass |
| Regional Wildlife Habitat Patch | Proposed Wildlife Fence | Kananaskis Gun and Archery Club | Smith Creek |
| | Three Sisters Parkway Extension (Proposed) | | Stewart Creek |

WILDLIFE CORRIDOR CONNECTIVITY

The map shown below identifies the approved and proposed wildlife corridors surrounding TSMV and their relationship to the regional network of wildlife corridors and habitat patches.



FREQUENTLY ASKED QUESTIONS

HOW DOES THE WILDLIFE CORRIDOR RELATE TO THE SMITH CREEK ASP?

As per the 1992 NRCB decision, a key requirement of any new development in the Smith Creek ASP area is a Provincially approved wildlife corridor that completes the connection between the approved Along Valley and Across Valley Corridors and the Wind Valley and Bow Flats Habitat Patches (via the G8 underpass).

Approximately 175 ha, or 53% of the total Smith Creek ASP Study Area (332 ha), is proposed to be designated as wildlife corridor. If the corridor is approved, 63% of Site 7 and 8 and 74% of Site 9 will be permanently protected as wildlife corridors.

As part of the community engagement for the Smith Creek ASP, a Community Advisory Group worked with the Project Team to not only discuss the Smith Creek ASP, but also to review and provide input into a variety of potential alignments of the wildlife corridor.

WHAT CONSTITUTES A FUNCTIONAL CORRIDOR?

Wildlife corridors in the Bow Valley fulfill several important biological processes, including maintaining meta-populations, achieving genetic connectivity, and connecting habitats within the home ranges of individual animals inhabiting the Bow Valley.

The NRCB Decision Report (1992) specifies that the primary purpose of wildlife corridors in TSMV is to ensure that development will not prevent wildlife movement at broader regional scales without being forced to cross development (NRCB, 1992, pp. 10-51).

A wildlife corridor is defined as a corridor that permits safe movement of wildlife from one habitat patch to another.

WHAT SPECIES OF WILDLIFE USE THE CORRIDOR?

Wildlife corridors are used by a great diversity of species, but are considered especially important for large herbivores such as deer, elk, bighorn sheep, as well as carnivores such as wolves, cougars, black bears and grizzly bears.

FREQUENTLY ASKED QUESTIONS

WHAT ARE THE BOW CORRIDOR ECOSYSTEM ADVISORY GROUP (BCEAG) GUIDELINES? HOW DO THEY RELATE TO TSMV?

The BCEAG was formed in 1995 to identify guidelines for appropriate locations and designs of wildlife corridors in the Bow Valley.

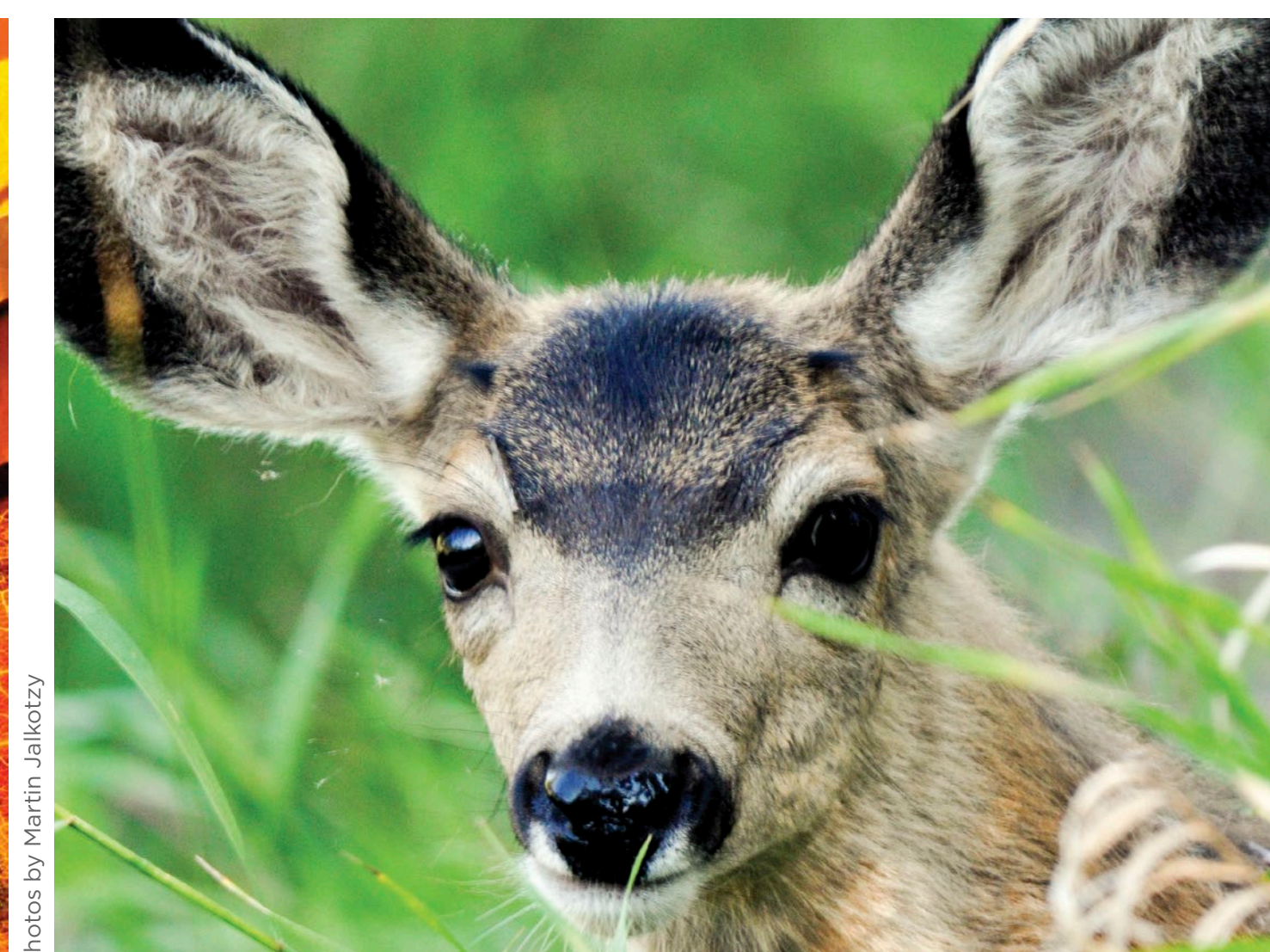
BCEAG states the following: *“The results of the literature review did not find information to suggest that the minimum corridor width of 350 m is inadequate. Deer, elk, cougar, bighorn sheep, black bear, grizzly bear and coyote have been recorded within the Three Sisters Along Valley Corridor and the relative abundance of these species did not decrease” (2012, Section 4.1, p. 6).*

The BCEAG guidelines are specifically and explicitly exempted from applying to NRCB approved projects such as TSMV.

HOW WIDE ARE FUNCTIONAL CORRIDORS?

There is very little research available showing the relationship between corridor width and efficacy and there are no methods available for estimating the minimum effective width of corridors as a standard to meet due to context of design.

Context is a very pertinent factor relative to TSMV corridors; corridors designed at TSMV are not bounded by development on both sides like most literary references. In the case of the Along Valley Corridor, it's bordered on the south side by a Provincial park that will never be developed, building a precautionary amount of conservatism into the design over and above the actual corridor.

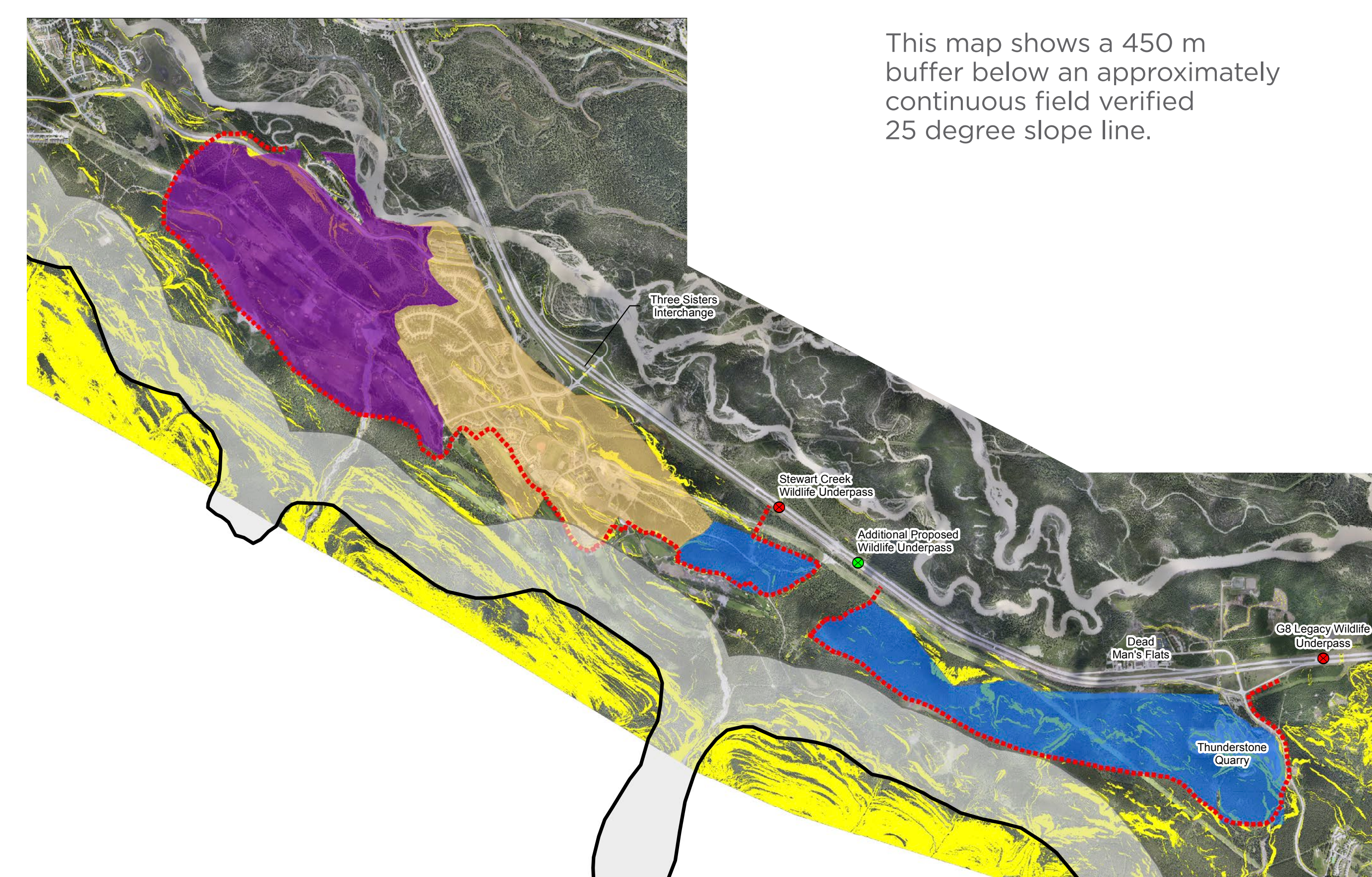
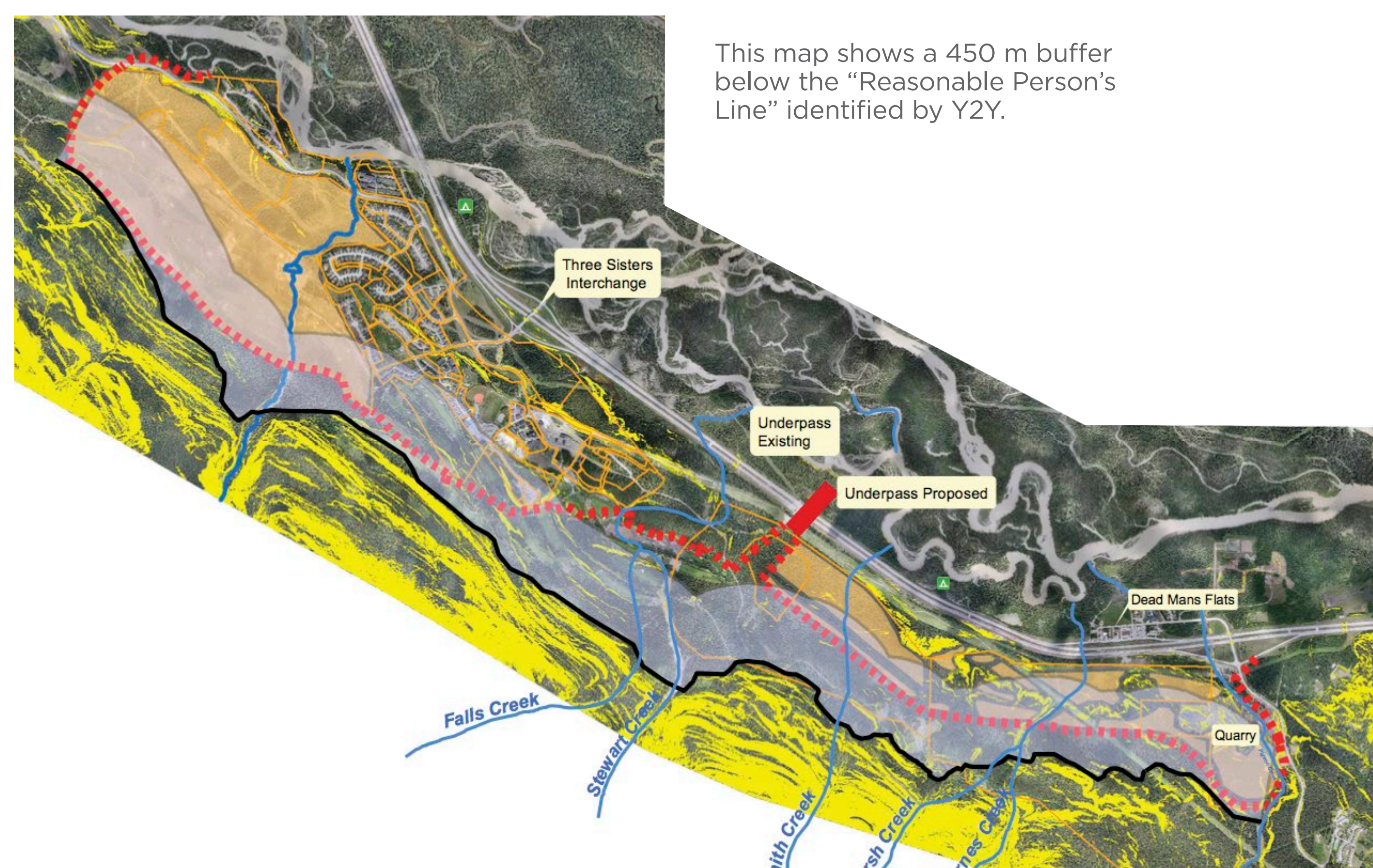


FREQUENTLY ASKED QUESTIONS

WHAT IS THE 25 DEGREE LINE?

Although particular species may show preferences for flatter terrain, wildlife movement does occur on steep slopes. For example, Chetkiewicz and Boyce (20092) identified multi-species least-cost movement routes upslope from currently designated wildlife corridors on TSMV lands, with substantial portions of these paths crossing slopes above 25 degrees. There is no published scientific basis for the designation of slopes greater than 25 degrees as ineffective for wildlife movement. This is acknowledged by BCEAG 2012.

In fact, the Cascade corridor in Banff National Park is widely considered effective despite having substantial area with slopes greater than 25 degrees. However, a 25 degree threshold is a locally discussed consideration and studies show that many wildlife species prefer shallower slopes. TSMV took this into account with a proposed corridor that is 470 m wide below a generally continuous 25 degree slope. TSMV's 25 degree line was developed by modeling a contiguous 25 degree slope while taking into account topographical features like benches that facilitate wildlife movement.



Source: Canmore Commons (2017)

- | | | | | |
|---|----------------------|--------------------|--------------------|---|
| Resort & Smith Creek Proposed Development | 25 Degree Slope Line | Existing Underpass | Stewart Creek | Buffer 450 Metres |
| Fence Line Proposed | < 25 Degrees | Proposed Underpass | Smith Creek | Approximate Continuous Slope > 25 Degrees |
| Buffer 450 Meters | > 25 Degrees | Resort Centre | Proposed Fenceline | > 25 Degrees |

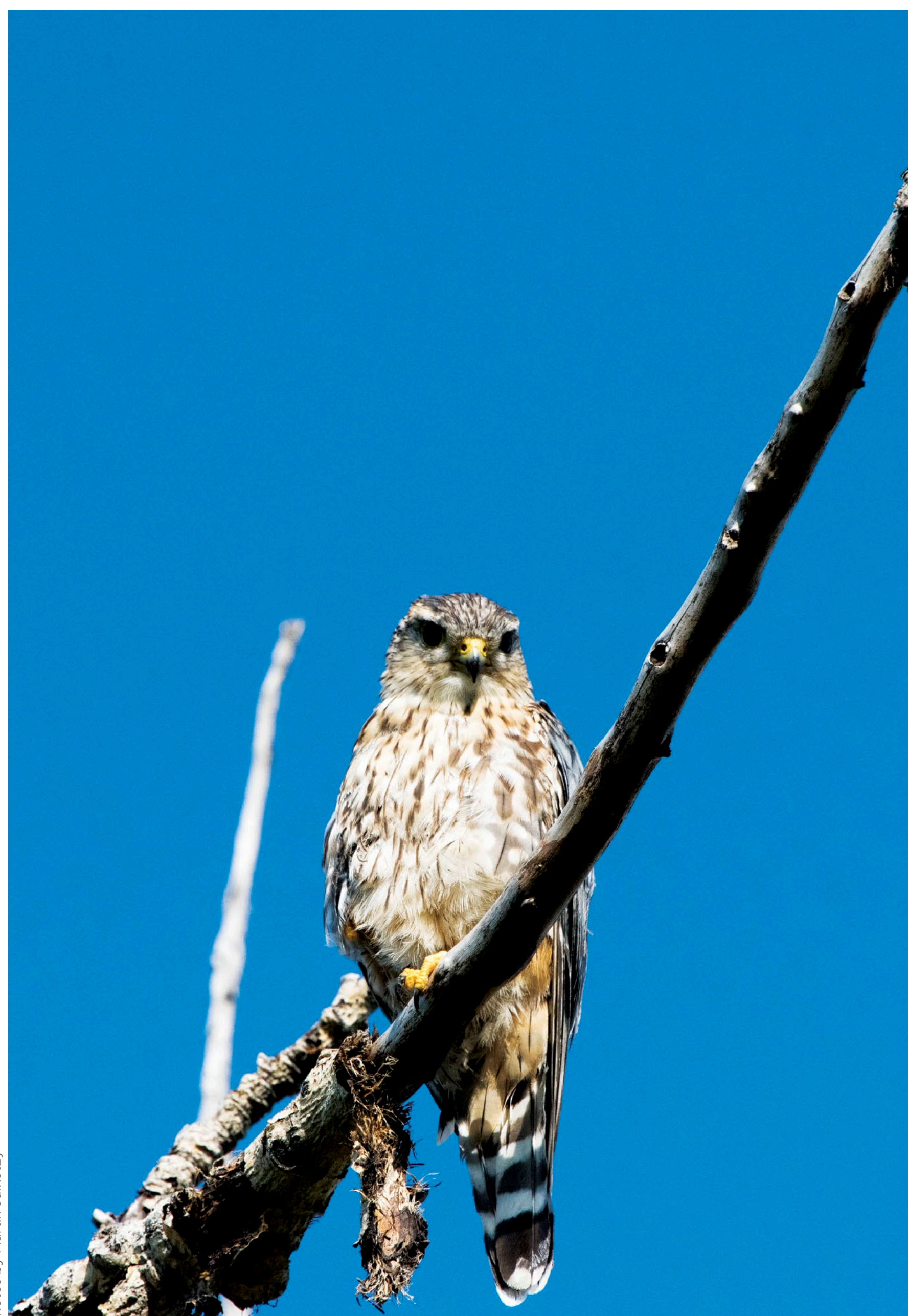
FREQUENTLY ASKED QUESTIONS

HOW DO HABITAT ENHANCEMENT AND WILDFIRE THINNING AFFECT WILDLIFE CORRIDOR FUNCTIONALITY?

AEP's mandate is to define the spatial boundaries of the wildlife corridor; therefore, habitat enhancement initiatives are not a consideration. However, habitat enhancement and wildfire thinning are being considered as part of the mitigations within the EIS and have been identified as one way to improve the functionality of corridors for some species.

Habitat enhancements that reduce forest cover can provide increased grazing space for species like elk and deer, berry production for bears, and enhance habitat for larger carnivores such as cougars and wolves by increasing predation opportunities.

Previous experience with habitat enhancement in the approved 1998 Along Valley Corridor indicate that areas with enhanced habitat, including reduced forest cover and increased berry production are used extensively by wildlife, especially bears.



FREQUENTLY ASKED QUESTIONS

HOW LONG HAVE TSMV AND THE PROVINCE BEEN MONITORING WILDLIFE?

Studies of wildlife movement, including careful field measurements by local experts, stretch back to the early 1990s.

Remote cameras were deployed on TSMV lands and in adjacent wildlife corridors by Chinook Co. Environmental Ltd. between 2009 and 2014, and by Corvidae Environmental Consulting Inc. between 2015 and 2016.

Cameras were deployed in portions of TSMV identified for future development, the Stewart Creek Golf Course, the proposed and approved wildlife corridor system, the 35 m Conservation Easement in and adjacent to the Resort Centre ASP area, and the Provincial Lands on Wind Ridge by professional biologists using scientifically defensible criteria reviewed by specialists at the Province of Alberta and other wildlife experts.

HOW IS CAMERA DATA COLLECTED?

Cameras were set up on any trail nearest to a randomly generated location. Trails included faint game trails, heavily used game trails, designated and undesignated human recreation trails, and active and inactive access / mining roads.

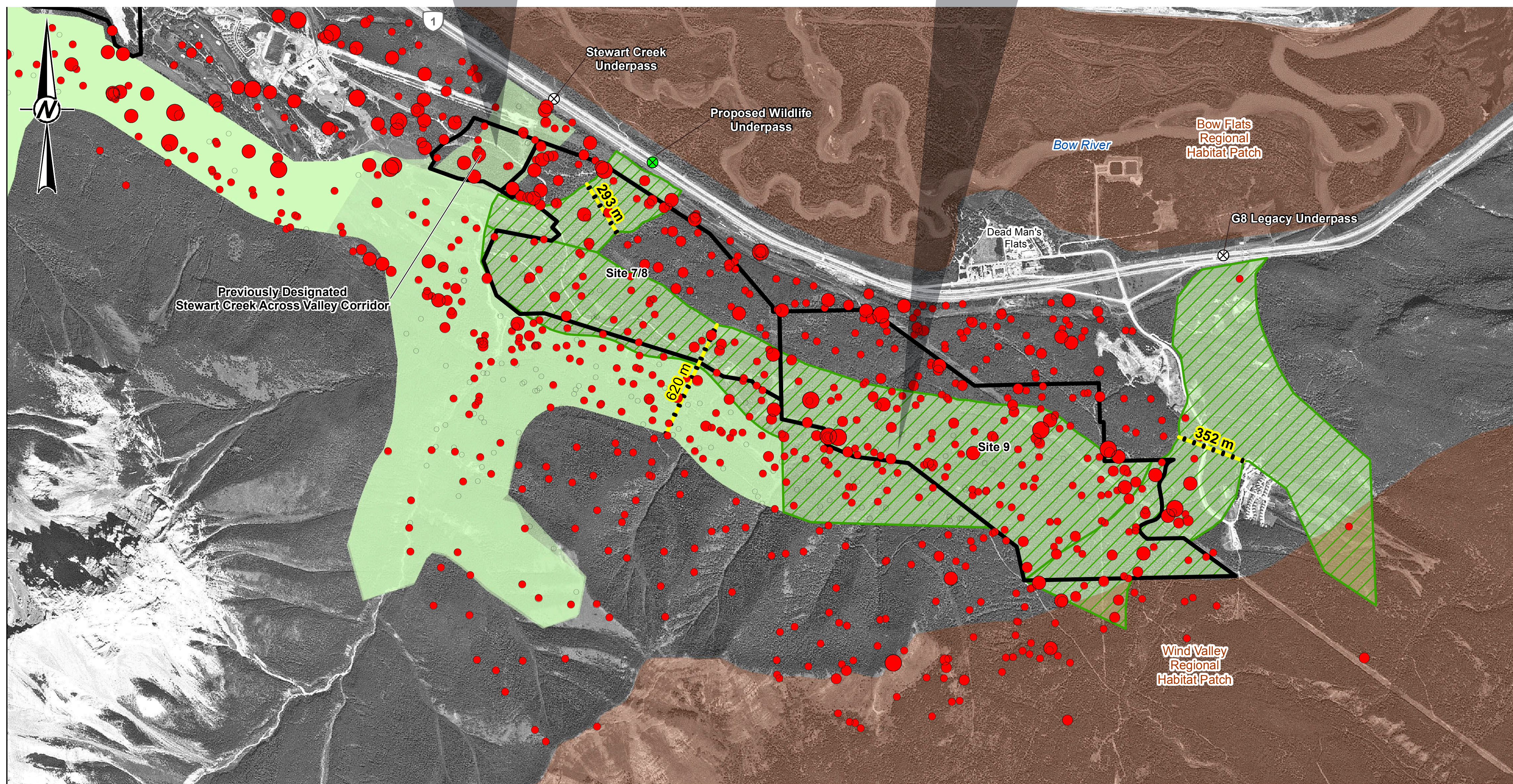
Cameras were rotated to a new random site approximately every three to four weeks by wildlife biologists.

TSMV, the Town, and the Province of Alberta use the same method to collect and categorize wildlife camera data and share the data.

WILDLIFE CAMERA DATA: ELK AND DEER

Detections of elk and deer are greatest within and adjacent to existing development.

Detections of elk and deer are common throughout the approved and proposed wildlife corridors.



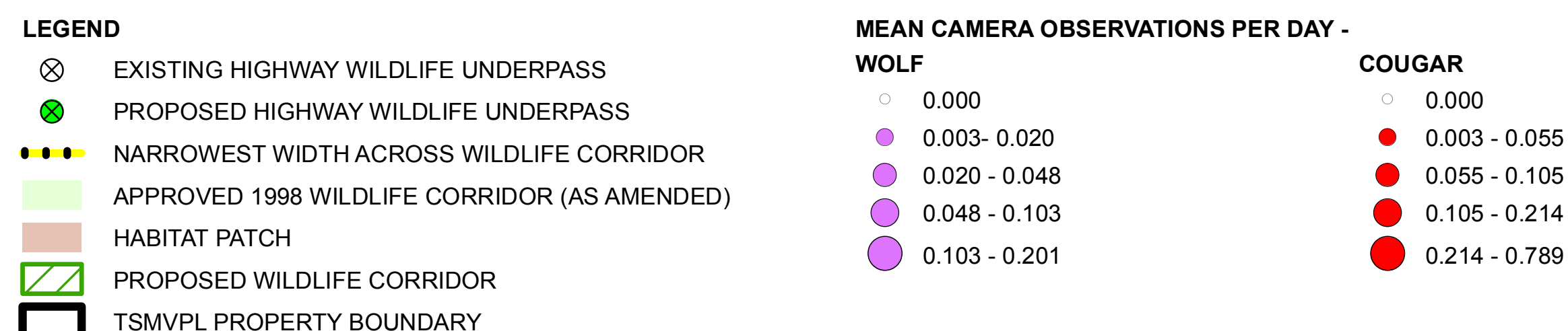
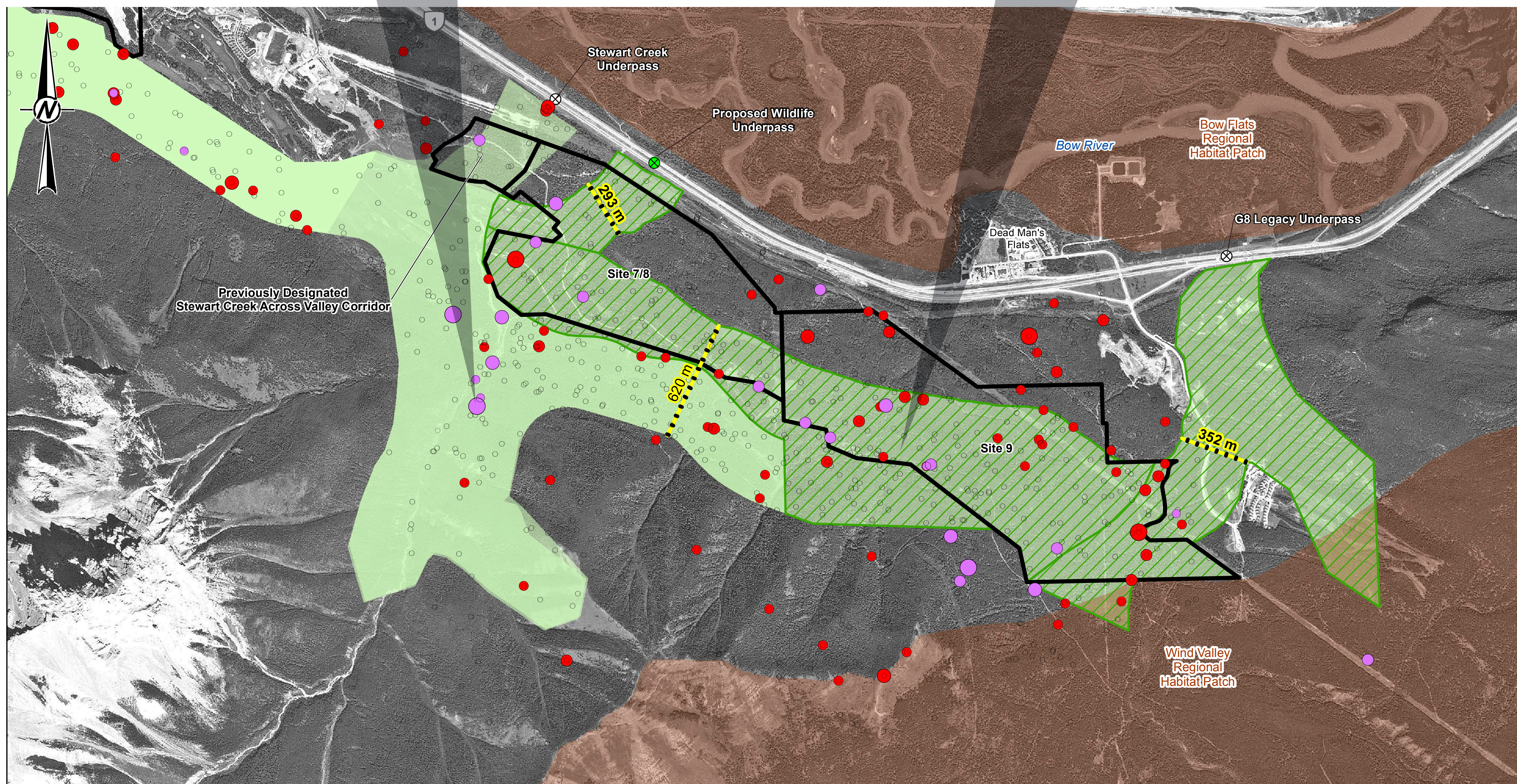
LEGEND		MEAN CAMERA OBSERVATIONS PER DAY - DEER AND ELK	
	EXISTING HIGHWAY WILDLIFE UNDERPASS		0.000
	PROPOSED HIGHWAY WILDLIFE UNDERPASS		0.010 - 0.529
	NARROWEST WIDTH ACROSS WILDLIFE CORRIDOR		0.529 - 1.018
	APPROVED 1998 WILDLIFE CORRIDOR (AS AMENDED)		1.018 - 1.904
	HABITAT PATCH		1.904 - 3.925
	PROPOSED WILDLIFE CORRIDOR		
	TSMVPL PROPERTY BOUNDARY		

Camera data were collected at randomly generated points within TSMV property and adjacent wildlife corridors and Provincial lands between 2009 and 2016. 1,362 locations were monitored over a total of 42,558 camera days.

WILDLIFE CAMERA DATA: COUGARS AND WOLVES

More wolves were detected up slope than were detected in flatter areas.

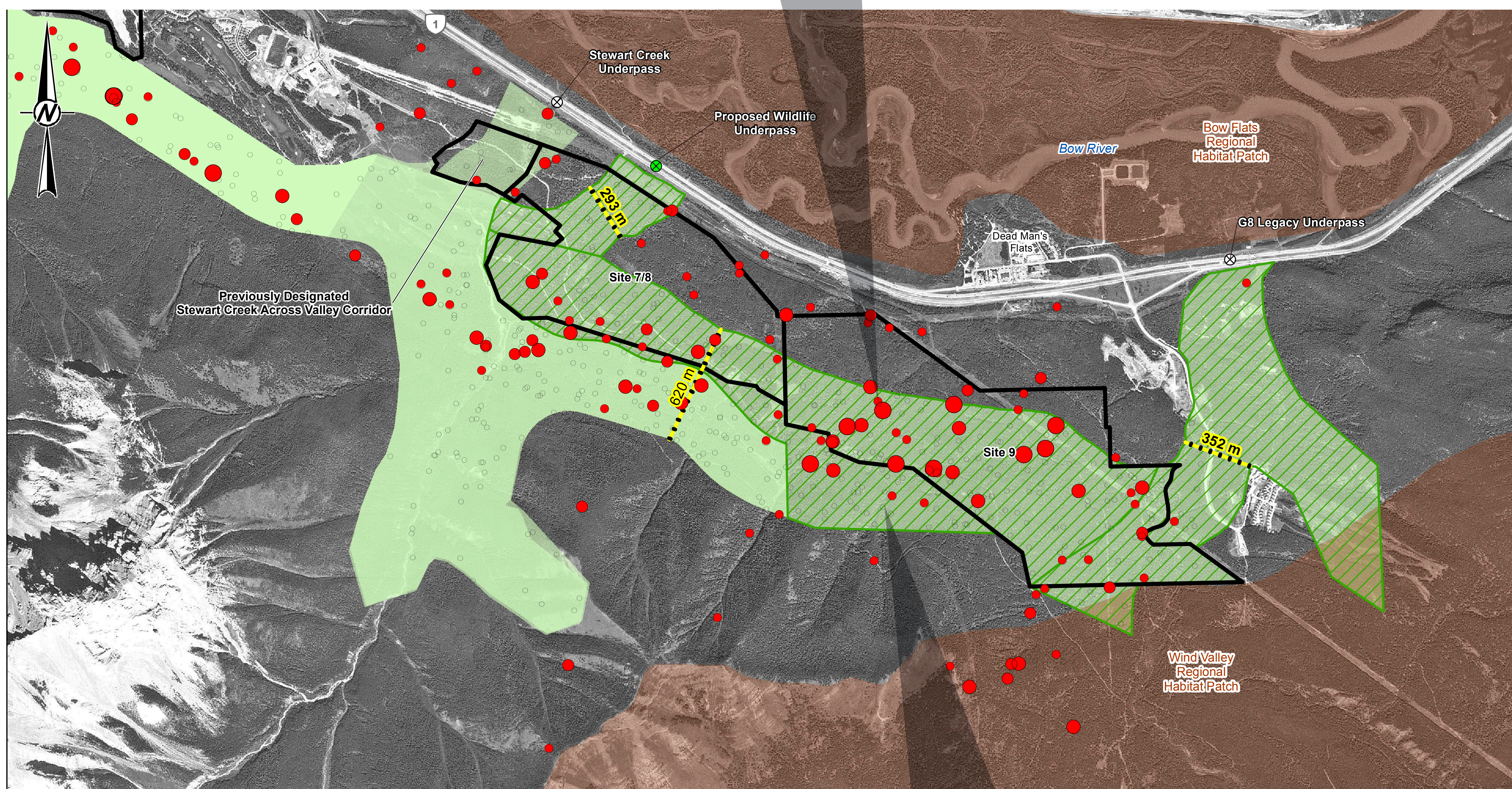
Detections of wolves and cougars are common throughout the approved and proposed wildlife corridors.



Camera data were collected at randomly generated points within TSMV property and adjacent wildlife corridors and Provincial lands between 2009 and 2016. 1,362 locations were monitored over a total of 42,558 camera days.

WILDLIFE CAMERA DATA: BLACK BEARS AND GRIZZLY BEARS

Bear detections were highest at cameras located within the approved and proposed wildlife corridors than elsewhere in the wildlife camera study area.



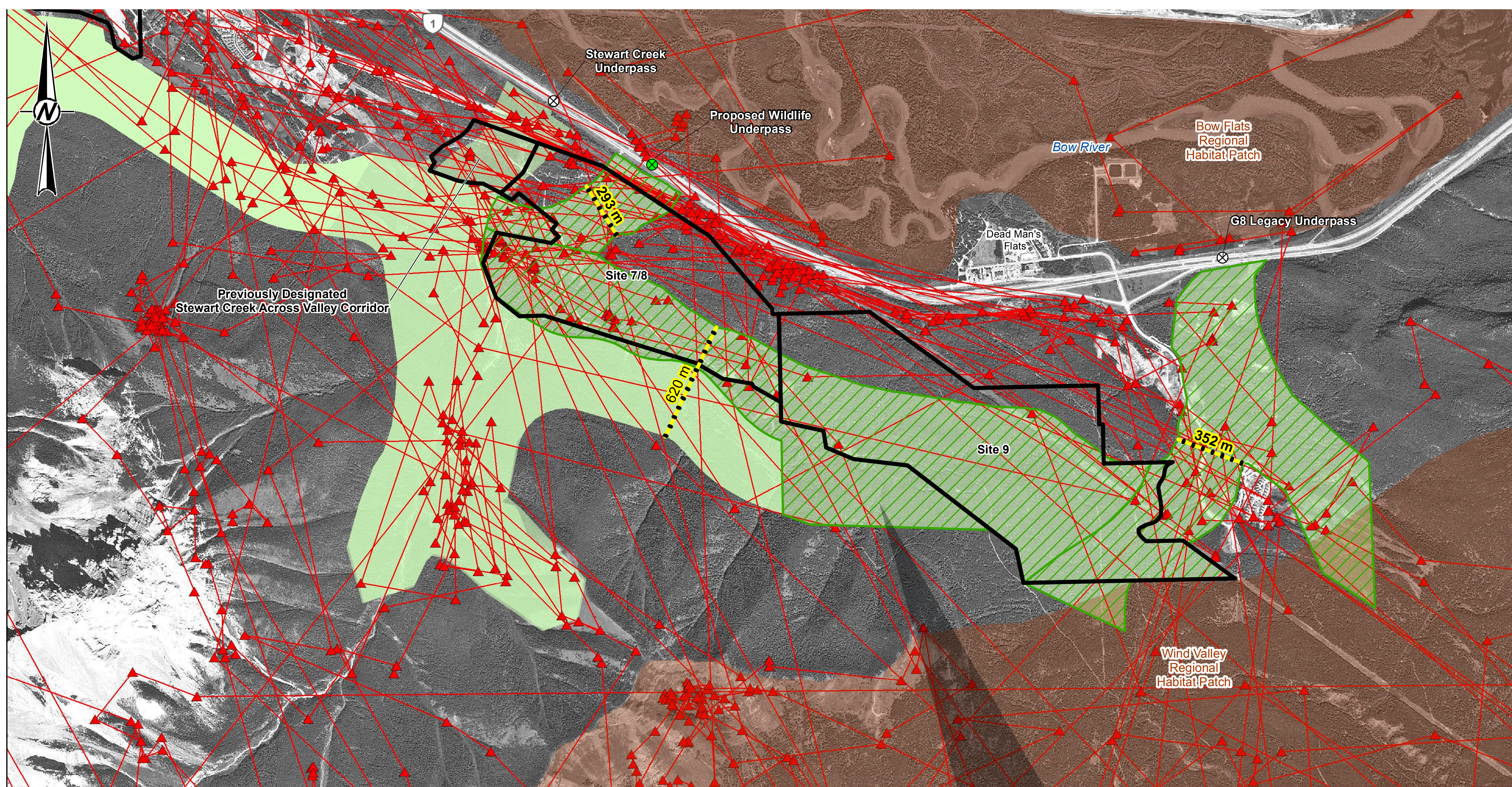
Bears were detected using areas upslope from proposed wildlife corridors, consistent with work published by Mark Boyce and Cheryl Chetkiewicz¹, which identified movement routes for grizzly bears and cougars south of approved wildlife corridors.

LEGEND		BLACK BEAR AND GRIZZLY BEAR	
	EXISTING HIGHWAY WILDLIFE UNDERPASS		0.000
	PROPOSED HIGHWAY WILDLIFE UNDERPASS		0.003 - 0.072
	NARROWEST WIDTH ACROSS WILDLIFE CORRIDOR		0.072 - 0.136
	APPROVED 1998 WILDLIFE CORRIDOR (AS AMENDED)		0.136 - 0.240
	HABITAT PATCH		0.240 - 0.414
	PROPOSED WILDLIFE CORRIDOR		
	TSMVPL PROPERTY BOUNDARY		

Camera data were collected at randomly generated points within TSMV property and adjacent wildlife corridors and Provincial lands between 2009 and 2016. 1,362 locations were monitored over a total of 42,558 camera days.

¹ Chetkiewicz, C.L.B. and M. S. Boyce. 2009. Use of resource selection functions to identify conservation corridors. Journal of Applied Ecology 46:1036-1047.

WILDLIFE TELEMETRY DATA: GRIZZLY BEARS



LEGEND

- ⊗ EXISTING HIGHWAY WILDLIFE UNDERPASS
- PROPOSED HIGHWAY WILDLIFE UNDERPASS
- NARROWEST WIDTH ACROSS WILDLIFE CORRIDOR
- APPROVED 1998 WILDLIFE CORRIDOR (AS AMENDED)
- HABITAT PATCH
- PROPOSED WILDLIFE CORRIDOR
- TSMVPL PROPERTY BOUNDARY

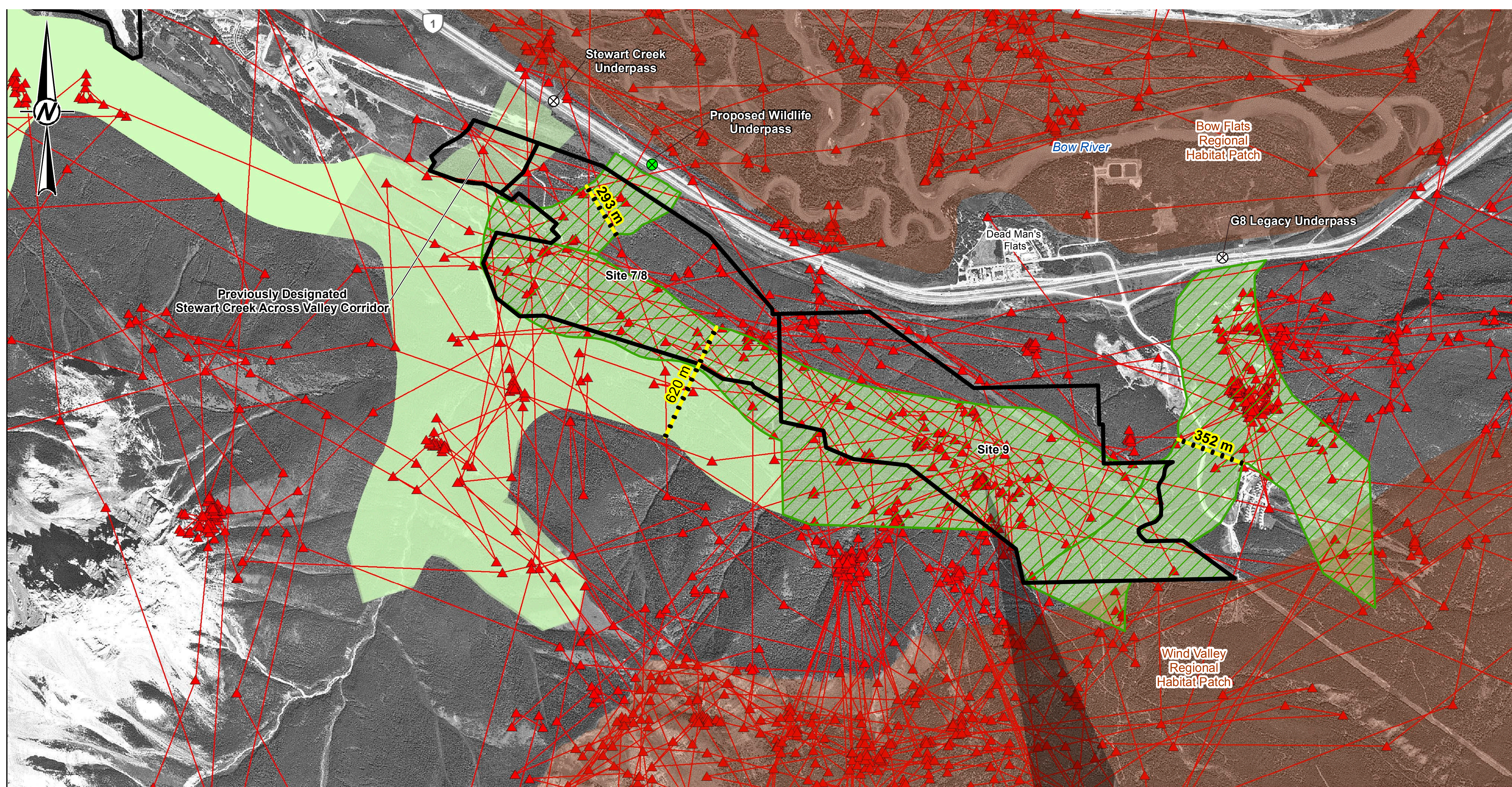
GRIZZLY BEAR TELEMETRY DATA

- ▲ GRIZZLY BEAR GPS COLLAR LOCATION
- PATH BETWEEN SEQUENTIAL LOCATIONS

Large number of locations within the southern arm of the approved Along Valley corridor, including linking to the Wind Valley Regional Habitat Patch over Wind Ridge.

The telemetry data illustrated above collected from five grizzly bears collared with GPS collars between 2000 and 2008.

WILDLIFE TELEMETRY DATA: COUGARS



LEGEND

- ⊗ EXISTING HIGHWAY WILDLIFE UNDERPASS
- PROPOSED HIGHWAY WILDLIFE UNDERPASS
- NARROWEST WIDTH ACROSS WILDLIFE CORRIDOR
- APPROVED 1998 WILDLIFE CORRIDOR (AS AMENDED)
- HABITAT PATCH
- PROPOSED WILDLIFE CORRIDOR
- TSMVPL PROPERTY BOUNDARY

COUGAR TELEMETRY DATA

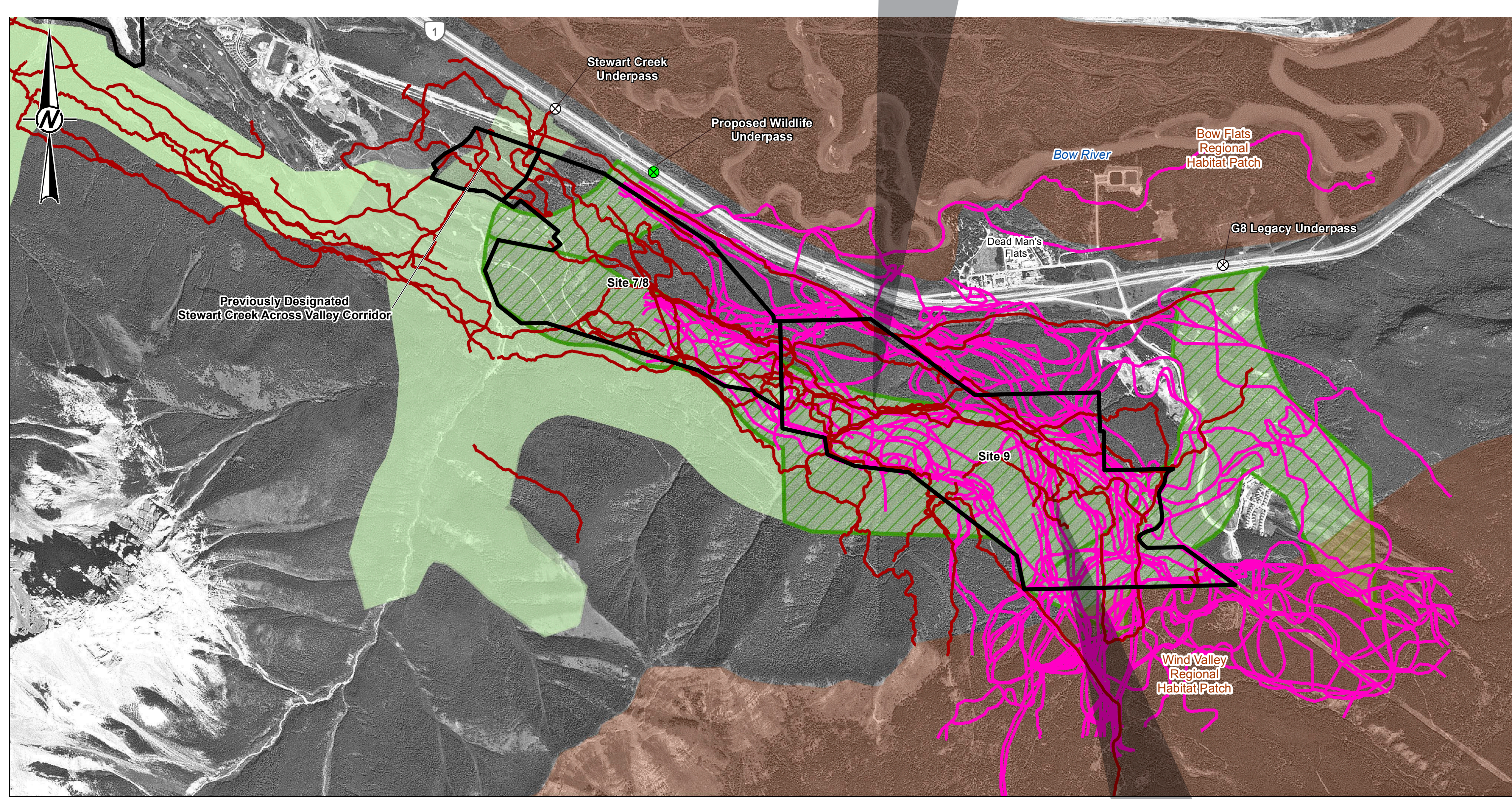
- ▲ COUGAR GPS COLLAR LOCATION
- PATH BETWEEN SEQUENTIAL LOCATIONS

Substantial use of existing and proposed wildlife corridors and of habitats up-slope from wildlife corridors on Wind Ridge.

The telemetry data illustrated above collected from five cougars collared with GPS collars between 2000 and 2004.

WINTER TRACKING DATA

The winter tracking data include a total of 273.6 km of winter carnivore backtracking, of which 183.2 km are cougars (67%). Winter tracking data are advantageous because they display the actual movement routes of animals, but are biased because humans follow tracks that they can most easily access, typically the first tracks encountered as they hike upslope from access points along the Trans-Canada highway. Compare these data with the cougar GPS location data to see how a low-elevation collection bias can influence winter tracking data.

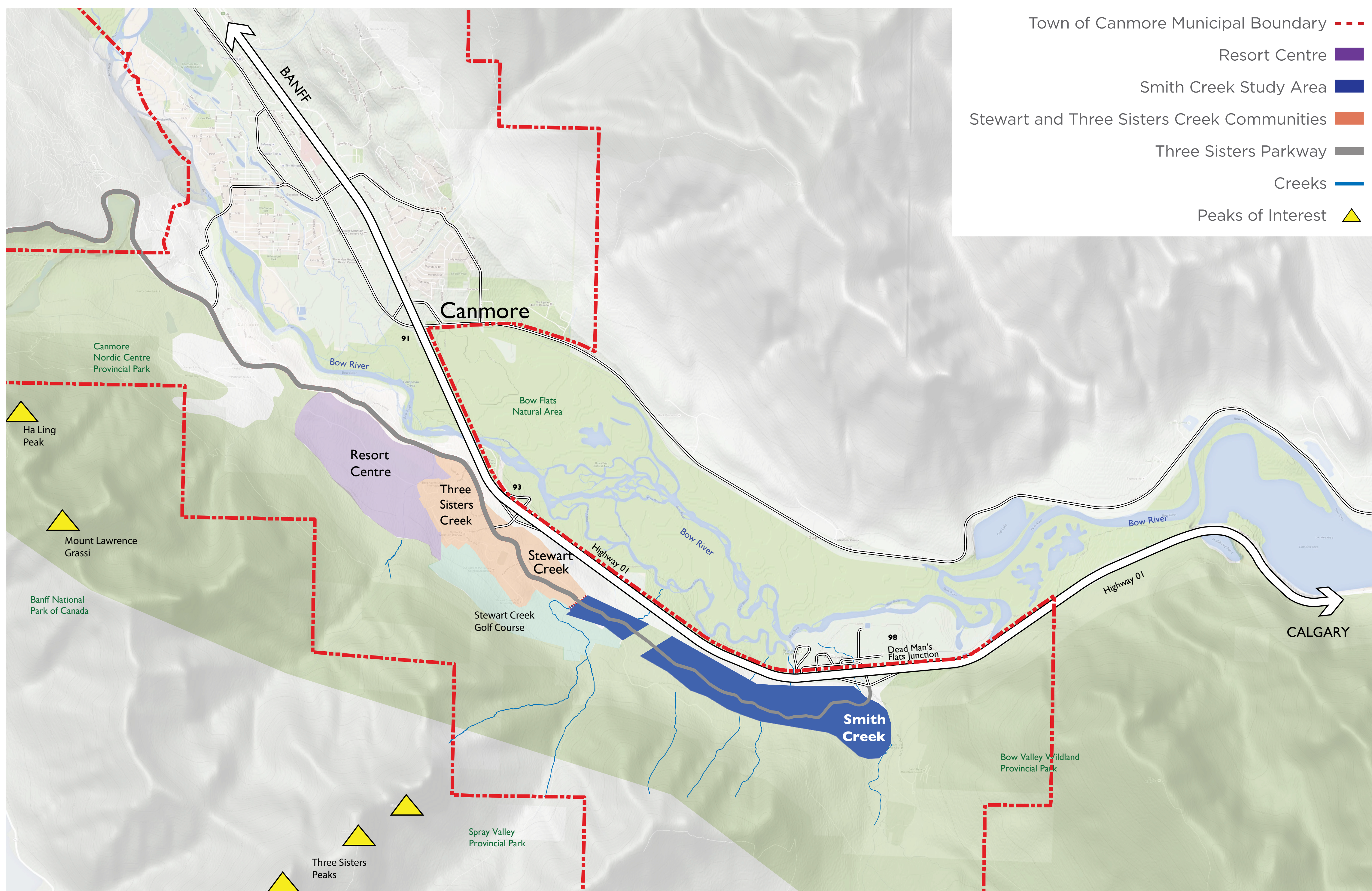


- LEGEND**
- ⊗ EXISTING HIGHWAY WILDLIFE UNDERPASS
 - PROPOSED HIGHWAY WILDLIFE UNDERPASS
 - PROVINCIAL 2002 WILDLIFE CORRIDOR CARNIVORE TR
 - TSMV CARNIVORE TRACKING
 - APPROVED 1998 WILDLIFE CORRIDOR (AS AMENDED)
 - HABITAT PATCH
 - ▨ PROPOSED WILDLIFE CORRIDOR
 - ▭ TSMVPL PROPERTY BOUNDARY

Large numbers of continuous tracking sessions identify wildlife moving up slope.

The tracking data illustrated above collected from five cougars collared with GPS collars between 2000 and 2004.

WHERE IS SMITH CREEK AND WHAT IS AN ASP?



An ASP is a planning document that is formally adopted by Council. The Smith Creek ASP provides a framework for the land use and future development of an area and contains policies that allow municipalities to review and evaluate specific development proposals against.

An ASP is one of the many steps required before the Smith Creek lands can be developed. The purpose of the ASP is to create certainty for the landowners, the community, and the Town regarding the future development on the remaining Three Sisters lands.

ENGAGEMENT AND COMMUNITY ADVISORY GROUP

In 2015, the Town and QPD (as representatives of Three Sisters Mountain Village Properties Ltd. [TSMV]) embarked on a collaborative process to develop the Smith Creek ASP. The collaborative Smith Creek ASP process served as a forum for QPD, the Town, stakeholders and the wider community to work together to develop a vision for the Smith Creek area by engaging in a transparent dialogue.

Through the establishment of a Community Advisory Group (CAG), QPD and the Town worked together with a diverse group of community members to understand the complex issues and concerns associated with planning Smith Creek.

Four CAG sub-groups were formed to discuss the ASP in greater detail and address specific issues including wildlife, recreation, and land use.

From June to September 2016, the Smith Creek Project Team hosted small group community conversations

to discuss specific aspects of the proposed ASP. The conversations and feedback from these meetings were used to inform revisions to the ASP concept and policy.

Other activities to engage the wider Canmore community included an online PlaceSpeak campaign, as well as two public open houses and one community workshop in Fall 2015. In addition to the small group community conversations, in September 2016 the Project Team hosted an interactive online community conversation on wildlife, where members of the public were invited to watch the presentation live and ask questions via instant messaging.

Two public information sessions were hosted in October 2016 for the Smith Creek ASP and the Resort Centre ASP amendments.



SMITH CREEK AREA STRUCTURE PLAN VISION

The following principles guide the policy direction of the Smith Creek ASP and subsequent development to support the Town's vision to be socially diverse, economically active and environmentally sound.

Smith Creek works to strengthen Canmore's position as a highly desirable place to live, work and raise a family.

- Aesthetically engaging residential housing opportunities.
- Diverse household types and incomes.
- All season recreation focus.

Smith Creek is an inclusive and interconnected community.

- Distinct sense of place.
- Connections within and beyond the plan area to surrounding neighborhoods.
- Complete streets to encourage various modes of travel.

Smith Creek is economically viable and vibrant and adds to Canmore's position as an authentic mountain experience.

- Mix of commercial and retail nodes.
- Development to support visitor economy.
- Complementary to existing businesses by generating local and regional traffic to Canmore.
- Growth and diversification of Canmore's high-potential business clusters.

Smith Creek is an example of a resilient development, responsibly balancing the needs of both the built and natural environments.

- Work with natural features.
- Address Steep Creek Hazards.
- Dedication of land for wildlife corridor.

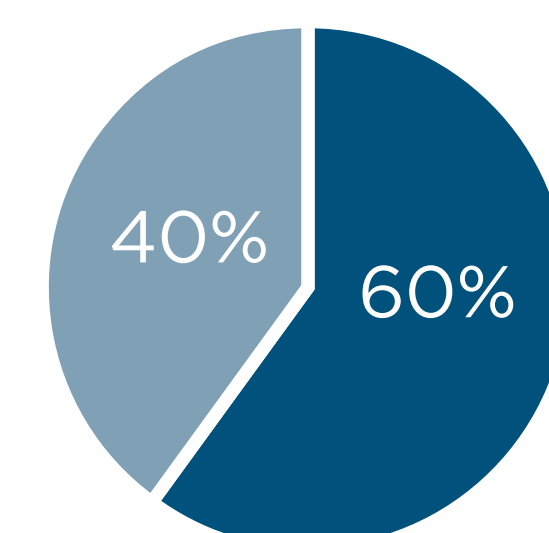
LAND USE CONCEPT

RESIDENTIAL

What will housing in Smith Creek look like?

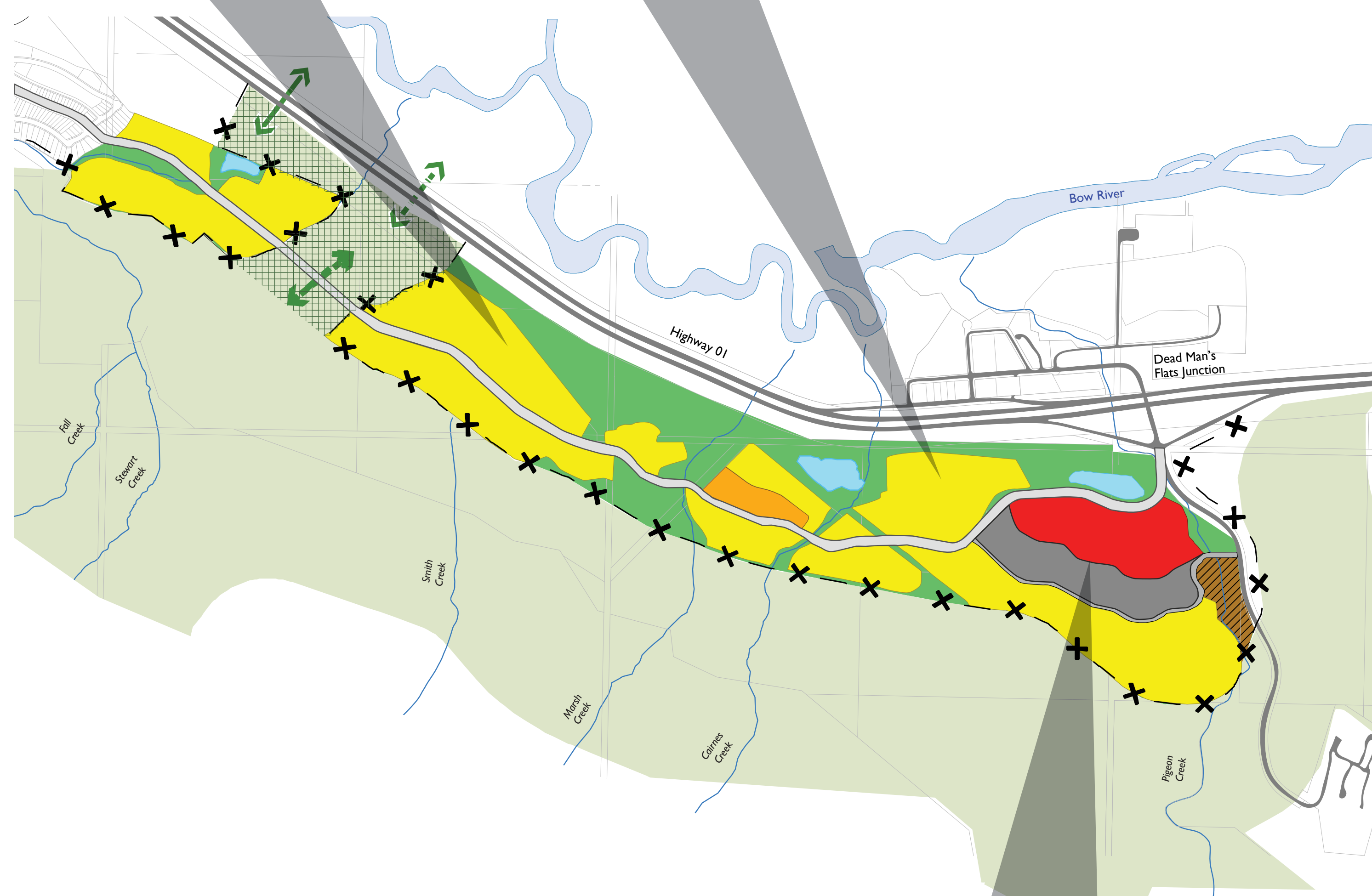
To accommodate a broad spectrum of residents, Smith Creek will provide a range of housing options.

Residential development will incorporate traditional and contemporary mountain architecture to maintain Canmore's community character while identifying opportunities for innovative design.



- Low density (detached, semi-detached, and townhouse)
- Medium density (townhouse, stacked townhouse, and multi-family)

- Sediment Retention Area
- Three Sisters Parkway
- Residential Area
- Mixed-Use Area
- Commercial Area
- Office & Industrial Area
- Open Space & Recreation
- Creeks
- Bow River
- Wildlife Underpass - Existing
- Wildlife Underpass - Proposed
- Wildlife Fence - Proposed
- Provincial Wildlife Corridor
- Optional Across Valley Corridor Realignment



COMMERCIAL & INDUSTRIAL

Commercial and industrial uses will need to be sensitive to the environment and the Canmore context. Smith Creek ASP aims to accommodate a range of retail, office and light industrial uses in a variety of different formats.

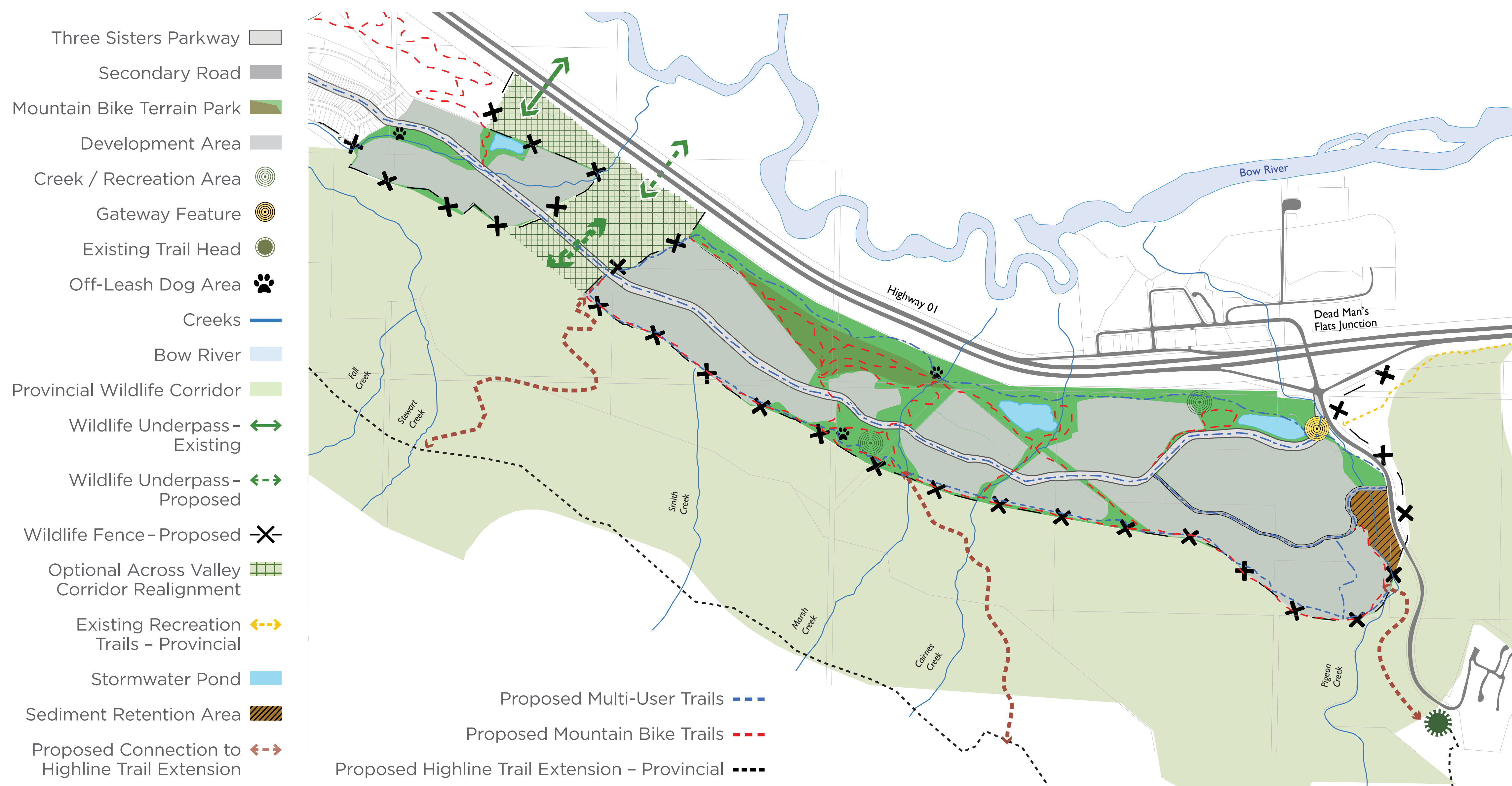
The Smith Creek ASP will provide for a mix of commercial and retail nodes to include retail, service, restaurant, arts, entertainment and institutional uses.

- Commercial uses will be complimentary to existing businesses by generating local and regional traffic to Canmore, the downtown core and to existing and new accommodation.

The Smith Creek ASP will provide for an industrial, office and institutional node.

- Potential uses could include light food manufacturing, institutional uses, and professional services.

RECREATION AND OPEN SPACE



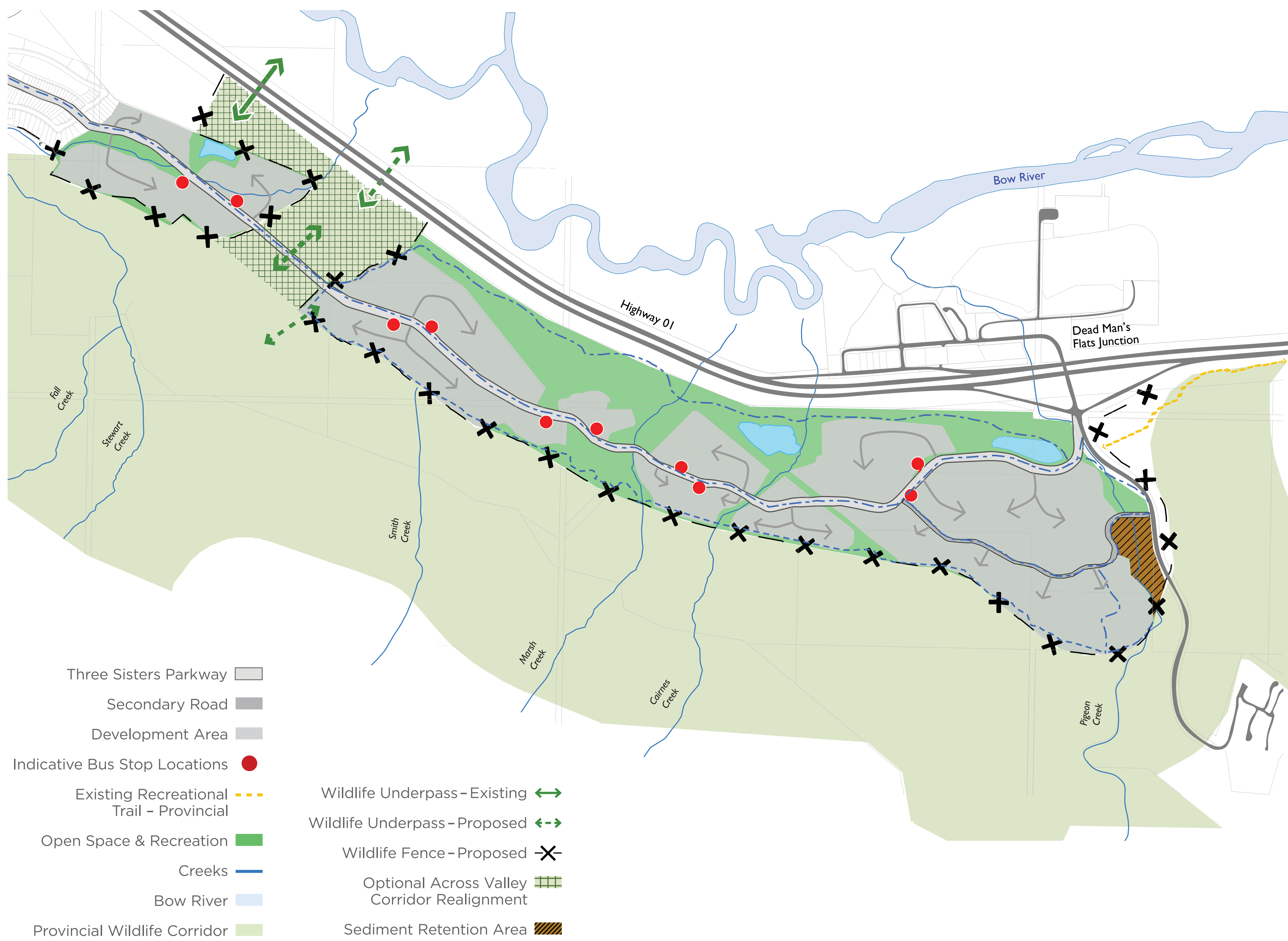
Trails and open space are highly valued by the Canmore community and will be integrated throughout Smith Creek to provide for a range of all-season activities including hiking and mountain biking.

The Smith Creek ASP will provide for:

- Paved and gravel pathways and multi-use trails that include more technical mountain bike trail sections that connect to the regional trail system.
- Centralized, multi-use park areas could feature playgrounds, off-leash dog-park(s), a trail head, parking and washroom facilities.
- Opportunities for smaller outdoor gathering spaces, such as viewpoints/vistas, and natural areas.

The recreational concept seeks to encourage recreation in Smith Creek rather than in the wildlife corridor by implementing human use management best practices, such as providing desirable recreational space within the developed area.

TRANSPORTATION



The Smith Creek ASP will provide for an interconnected and efficient transportation network that promotes walking, cycling, and transit.

The hierarchy of streets will be responsive to mountainous terrain and provide ease of use for users of all modes.

The transportation network in Smith Creek will enhance pedestrian and cyclist connectivity, and provide access between the residential and commercial areas in the Plan Area and beyond.

SMITH CREEK ASP UNIT DENSITY

The Master Zoning Bylaw (DC1-98) established 5,457 as the maximum number of units that can be built on TSMV land.

The Smith Creek ASP provides a range of units so that builders can adapt to market conditions while also respecting the original total unit cap established for Three Sisters lands. The bylaw and unit ranges allow for unit transferability between approved ASPs within TSMV.

The Smith Creek ASP provides for a range of 1,200 – 1,700 residential units. Based on current household size trends in Canmore, this unit range results in a range of approximately 3,000 – 4,000 residents in Smith Creek. The proposal will not exceed the unit maximum established for development in Three Sisters.

The exact number of units that will be built in Smith Creek will be determined at future stages in the development process.



AFFORDABLE HOUSING OBJECTIVES – WHAT WE HEARD

Through conversations with the Town, the CAG, stakeholders, and the wider community, the need for affordable housing in the Bow Valley was identified as a key priority.

Due to high housing costs, Canmore has one of the highest costs of living in Alberta (Canmore Community Monitoring Report, 2014).

The Smith Creek ASP identifies affordability as a key objective, and as necessary to sustain a population of diverse residents and to keep young families in Canmore.

While the Town of Canmore is working to address affordable housing, the Smith Creek ASP provides another opportunity to contribute to these efforts through housing variety, a commitment to build Entry-Level Housing, secondary suite provisions, Employee Housing and identifying opportunities to partner on the provision of Perpetually Affordable Housing.



AFFORDABLE HOUSING STRATEGIES IN THE SMITH CREEK ASP

Entry-level Housing

A minimum of 25% of residential units approved must qualify as Entry-Level Housing units.

Accessory Suites

The ASP will enable secondary and garden suites in all low density units thereby increasing the potential for affordable rental units.

Perpetually Affordable Housing

Perpetually Affordable Housing (PAH) may also be provided at the discretion of the developer instead of entry-level housing.

Community Land Allocation for PAH is obtained through land transfers between the Town and developer. Typically government road allowances are transferred from the Town to the developer in exchange for community lands.

Employee Housing

Employee Housing proportionate to commercial and industrial build-out and appropriate for the nature of employment generated by new developments. The ratio of Employee Housing will be based on an employee generation analysis and will serve to reasonably accommodate employees unable to afford housing.



COEXISTING WITH WILDLIFE: WHAT IS HAPPENING NOW?

WHAT IS THE PROBLEM?

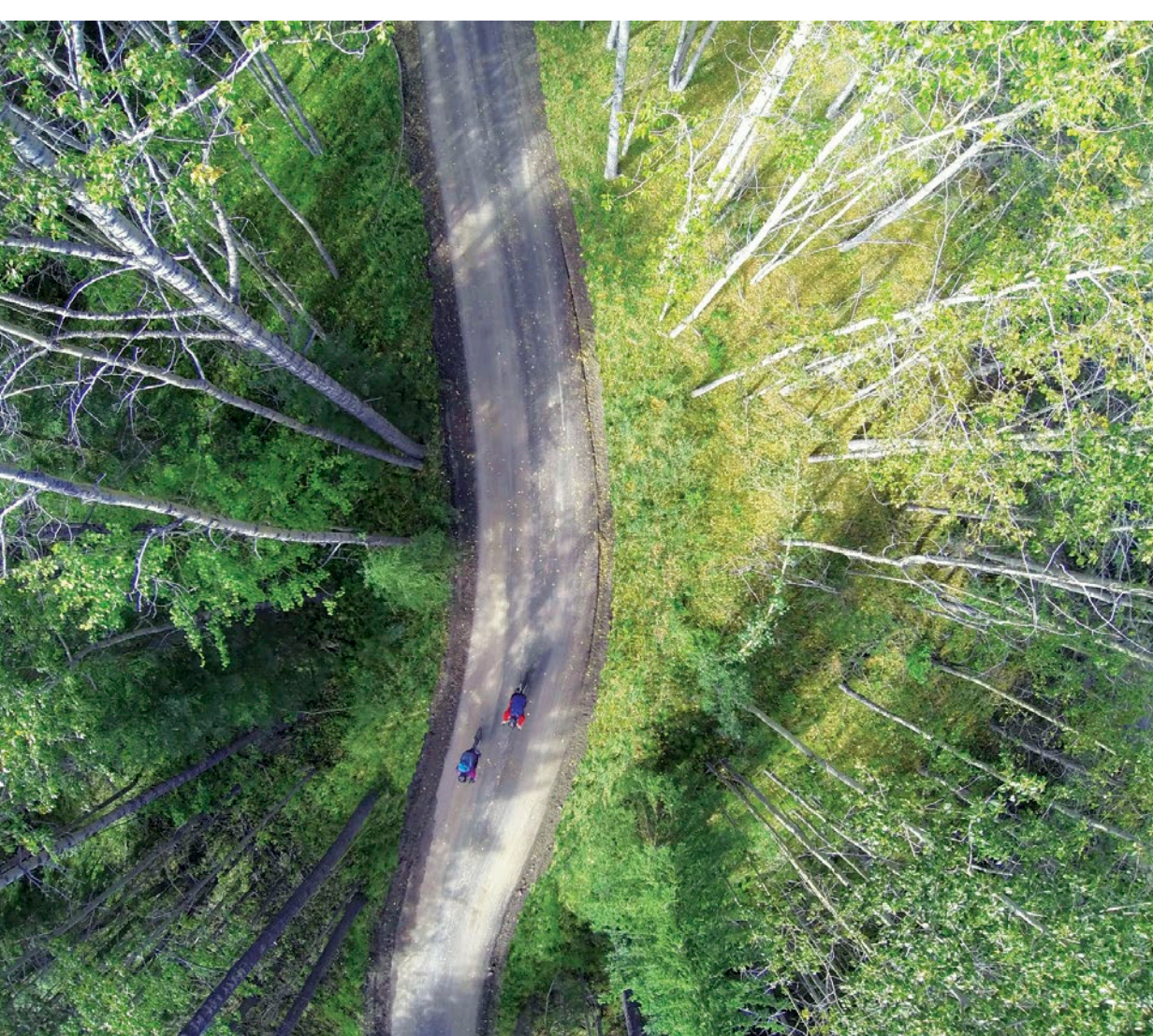
There have been a large, and growing, number of negative human-wildlife interactions in the Bow Valley.

- Between 1985 and 2011, 2,087 carnivore conflicts were reported in conflict zones overlapping the study area, 353 of which occurred in zones adjacent to wildlife corridors.
- 90% of negative interactions involved bears, and most occurred in residential areas.
- A conflict, or negative human-wildlife interaction, is related to the consequence that an interaction between humans and wildlife has on the wildlife population.
- Negative human-wildlife interactions can result in wildlife removals, negatively impacting the population and ecosystem.

WHY IS THIS HAPPENING?

There are two primary causes for the increase in negative human-wildlife interactions:

1. Wildlife are adaptable and are selecting to be in, or adjacent to, developed areas (rather than avoiding them) due to attractants in the developed areas.
2. Humans are spending substantial time in designated wildlife habitat, including habitat patches and wildlife corridors.



SOLUTIONS: A COMPREHENSIVE WILDLIFE MITIGATION STRATEGY

Public engagement and consultation with stakeholders, through both the Smith Creek ASP and Resort Centre ASP amendment process, allowed the Project Team to produce a comprehensive wildlife mitigation strategy, which has been applied to the Smith Creek ASP.

The comprehensive wildlife mitigation strategy includes a series of initiatives that work together to ensure that development and the humans within Smith Creek coexist with wildlife.

Mitigation initiatives include the following:

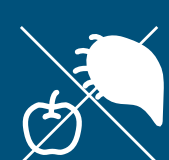
- A “hard edge” approach to corridor management achieved through a wildlife fence;
- Attractant management;
- Efforts to minimize sensory disturbance in developed areas adjacent to the wildlife corridor (e.g., downward casting exterior lights in rear yards, except for safety);
- Providing a variety of designated trails and off-leash day areas in developed areas as an alternative to recreating in the wildlife corridor;
- Education and signage;
- Possibility of habitat improvement within the corridor through forest canopy thinning and selective clearing initiatives; and,
- Gates to allow quick access to designated trails across, and above the wildlife corridor minimizing disturbance in the corridor.



WILDLIFE FENCING



**DESIGNATED TRAILS WITHIN THE
SMITH CREEK ASP PLAN AREA**



ATTRACTANT MANAGEMENT



EDUCATION AND ENFORCEMENT



**WILDLIFE FRIENDLY CONSTRUCTION
MANAGEMENT GUIDELINES**



OFF-LEASH DOG AREAS

WILDLIFE: FREQUENTLY ASKED QUESTIONS

WHY ARE BIOLOGISTS RECOMMENDING A HARD EDGE? WHY HAS THE APPROACH TO WILDLIFE CHANGED?

A soft edge approach to wildlife corridor design was the primary recommendation when the 2004 Resort Centre ASP was approved. A soft edge leaves development areas adjacent to corridors with as much space as possible by allocating low density uses, such as a golf course, into those areas. The assumption was that a buffer is required to reduce sensory disturbance and to facilitate movement in the corridor so wildlife could avoid human developments.

Project wildlife biologists no longer recommend the soft edge approach to mitigate negative human-wildlife interactions. Research and experience in the Bow Valley has shown the soft edge compromises the functionality of wildlife corridors due to increases in negative interactions between humans and animals, like elk, grizzly bears, and cougars, that frequent soft edges.

Experts dealing with human wildlife conflict on a regular basis have highlighted the importance of mitigating human - wildlife interaction through a hard edge approach. In TSMV, this hard edge will be achieved by constructing a wildlife fence along corridor edges, similar to the fence along the Trans-Canada Hwy.

DID THE PROJECT TEAM LOOK AT ALTERNATIVES TO A WILDLIFE FENCE?

Yes, the Project Team explored several alternatives to the proposed wildlife fence including:

- A wildlife permeable fence (post and rail) that serves as a visual cue to people that they are entering a wildlife corridor;
- High density development adjacent to the wildlife corridor; and,
- A partial wildlife fence that would not surround the entire developed area.

The Project Team and Golder met with wildlife managers and fencing experts from Parks Canada and Alberta Environment and Parks to review options. The experts indicated that the proposed wildlife fence would be the most effective option.

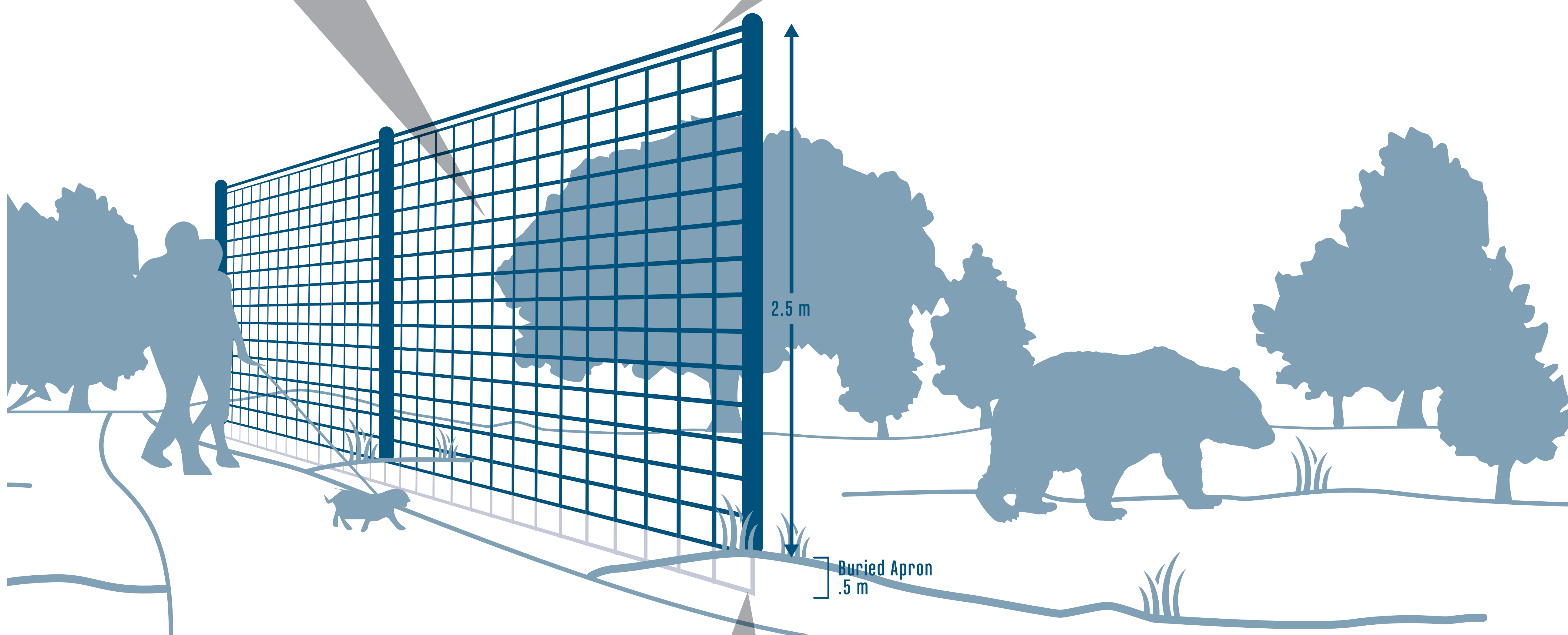
Specifically, the aforementioned experts indicated that a post and rail fence would require heavy enforcement to deter people from entering the wildlife corridor while a partial fence would do little to prevent wildlife from entering the developed area. Additionally, the fencing experts indicated that, given the high level of adaptability of wildlife in the Bow Valley, a high density development adjacent to the wildlife corridor may not be the most effective way to prevent wildlife from entering the developed area.

WILDLIFE: FREQUENTLY ASKED QUESTIONS

WHAT WILL THE FENCE LOOK LIKE AND WHERE WILL IT BE LOCATED?

The proposed wildlife fence is similar in design to the fence used in Banff National Park along the Trans-Canada Highway.

High tensile top wire to help minimize damage from falling trees.



TSMV has worked with adjacent land owners to ensure that a comprehensive and holistic solution is applied to not only Smith Creek and Resort Centre, but also to the lands already developed with residential homes and the Stewart Creek Golf Course—making TSMV safer for wildlife and humans overall.

Buried apron to prevent wildlife from digging under the fence.

Culverts, gates, jump-outs, electro-mats, or cattle guards will be proposed for roads, creeks and rivers in areas where wildlife may attempt to enter the development area. These details will be proposed at a later stage, such as a part of the land use and/or subdivision process.

WILDLIFE: FREQUENTLY ASKED QUESTIONS

IF ALL OF THREE SISTERS IS FENCED, HOW WILL RESIDENTS AND VISITORS ACCESS THE TRAILS ABOVE THE WILDLIFE CORRIDOR?

Pedestrian and bike access through the wildlife corridor will be directed to designated Provincial trails so full access to Canmore's favorite trails will continue. Gates through the fence on designated trails will provide access through the wildlife corridor to approved Provincial trails above the corridor, such as the Highline Trail.

WHO WILL PAY FOR THE FENCE?

TSMV (or the developer) will pay for the cost to build the fence. After the fence is completed, it would be transferred to the Town or a community association to maintain. The Town is currently exploring maintaining the fence; however, this decision is subject to Council approval.

WHEN WILL THE FENCE BE BUILT?

The wildlife fence will be phased in prior to development, and will surround the developed portions as completed. The fence will be monitored to support adaptive management strategies.

HOW WILL INTRUSIONS BE DEALT WITH?

Even with a fence, intrusions are inevitable and, therefore, attractant management is an important component of the wildlife mitigation strategy. Swing gates and/or jump-outs will be installed along the fence to facilitate the removal of wildlife from the developed areas should they get inside the fenced area, in the same manner that wildlife issues are currently resolved in Canmore.

WILDLIFE CONSIDERATIONS IN THE RESORT CENTRE ASP AMENDMENTS: WHAT WE HEARD

The following are the key wildlife considerations that informed the proposed wildlife mitigation strategy.

- The “soft edge” approach to corridor management is not effective in preventing wildlife from entering developed areas.
- There is frequent and disruptive human use in the wildlife corridors.
- There are unmanaged wildlife attractants that draw wildlife into developed areas.
- There is a lack of education and signage related to appropriate human use of, and behaviour in, the wildlife corridor.
- There is a need to minimize sensory disturbances in areas adjacent to the wildlife corridor.
- There is concern regarding slopes steeper than 25 degrees and wildlife corridor functionality.

The Environmental Input Statement (EIS) provides a series of recommendations to address many of these concerns in the developed area. The concern related to wildlife corridor functionality is out of the scope of the EIS; however, data from the Bow Valley shows that, while wildlife prefer flatter areas, use of corridors continues in sloped areas of more than 25 degrees.

Wildlife has been a key consideration for the planning team and the community from the beginning of the Smith Creek ASP Project. The proposed wildlife corridor alignment and wildlife mitigation proposals have been informed through the following:

- Conversations with Alberta Environment and Parks.
- Meetings with stakeholders.
- Consultations with Project Biologists (Golder Associates).
- Smith Creek Community Advisory Group (CAG) input.
- Discussions with the Canmore residents through a series of small-group Community Conversations.