



January 28, 2020

Rick Blackwood, RPF
Alberta Environment and Parks
Province of Alberta
10th Floor, 9915 108 Street
Edmonton, Alberta
T5K 2G8

Dear Mr. Blackwood,

**RE: Three Sisters Mountain Village (TSMV)
Smith Creek Wildlife Corridor – Revised Submission**

We are pleased to present to you this revised proposal for our Smith Creek Wildlife Corridor as shown in the attached figure. This proposal is based on over four years of direct work with the wildlife specialists at Golder, as well as public feedback over the course of two years in 2017 and 2018, and many meetings, discussions, reviews and comments from the Province of Alberta going back to at least 2015. We believe that we have built upon the advice contained within the Province's correspondence of June 2018, which recognized the many positive aspects of our previous submissions originating back to January 2017 and commended our previous work upon which this submission is built.

We have asked Golder to provide a professional review of Three Sisters Mountain Village Properties Ltd.'s (TSMVPL) proposal to you, and for convenience, they have packaged up several maps they developed during their evaluation, their previous background work and their review in the attached "Evaluation of the Smith Creek Wildlife Corridor" dated January 28, 2020 (Golder 2020).

Wildlife corridors are a requirement of the NRCB Decision No. 9103, in which the NRCB balanced environmental, social, and economic considerations and determined the Three Sisters project to be in the public interest. Similar to the careful balance that the NRCB undertook when weighing many factors, TSMVPL also weighed many factors into this submission including: steep creek considerations, property ownership, physical and topological constraints, recommendations from very experienced wildlife specialists, available scientific information and wildlife data from the Bow Valley, including specific to the lands discussed herein.

This submission deals with the remaining portion of the Along Valley Corridor and connectivity between the Wind Valley Habitat Patch and Bow Flats Habitat Patch at the eastern end of the TSMV property. Currently, the Along Valley Corridor is fully approved by the Province of Alberta to approximately 110 m east of the road allowance between S12-24-10-W5M and S11-24-10-W5M. This submission seeks to continue that connection approximately 2 km further east to the Wind Valley Habitat Patch, and also



would formalize the corridor connection off our property through to the G8 Underpass located east of Dead Mans Flats.

We have heard from wildlife specialists that connections to the Bow Flats Habitat Patch is quite desirable, and we have incorporated that feedback into this corridor submission. We have also heard the feedback from the Province that they would like TSMVPL to consider additional lands over and above what was already approved in 1998 for the Along Valley Corridor within Sites 7, 8 and 9 (portions of S11-24-10-W5M and S14-24-10-W5M). We have considered that request, with the acknowledgement by the Province that these lands are over and above the requirements of NRCB Decision No. 9103.

The narrowest portion of the current approved and designated Along Valley Corridor, 350 m, occurs immediately south of and above Sites 7/8. This submission will add land to the north side of the designated Along Valley Corridor, increasing the width of the corridor immediately above Sites 7 and 8 to an overall width of 550 m at its narrowest point.

The additional land on Sites 7 and 8 in this proposed corridor also addresses a portion of land on Site 7 that was considered a potential disconnect for wildlife movement in previous wildlife planning documents. The northern border of the designated Along Valley Corridor and the proposed extension will consist of a single smooth edge without any disconnects. The border was also moved north sufficiently to encompass an important large fen wetland, the largest single fen wetland on the TSMV lands. Mapped wetlands on Site 7, 8 and 9 lands identified by the NRCB are now within the proposed Smith Creek Along Valley Corridor.

This submission also proposes to relocate the Stewart Creek Across Valley Corridor approximately 630 m to the east, centering the corridor on the location of a proposed new wildlife underpass across the TransCanada Highway. The proposed new Stewart Creek Across Valley Corridor is comprised of habitat preferred by grizzly bear, elk and cougars based on habitat suitability modelling for these species in the Bow Valley (Golder 2013). It is also proposed that wildlife will also continue to have access to the existing Stewart Creek underpass via Provincially owned lands within NWS14-24-10-W5M (LINC: 0026031948), increasing the number of underpasses that cross the TransCanada Highway from two to three (i.e. G8 Legacy Underpass, two Stewart Creek Underpasses) and relocating the existing Stewart Creek Across Valley Corridor to a drainage, which is a natural movement corridor for wildlife. We also note the increase in width of the Stewart Creek Across Valley Corridor proposed in response to the Province's June 2018 correspondence, to approximately 640 m wide on average. This increase in the width of the Stewart Creek Across Valley Corridor is anticipated by wildlife specialists to provide more benefits than a wider Along Valley Corridor as the Along Valley Corridor already averages over 675 m wide and one edge is bounded by Provincial parks with lands already documented to be well used by wildlife.

The Stewart Creek Across Valley Corridor relocation is proposed as an option, subject to Alberta Transportation and other appropriate regulators approving a new wildlife underpass beneath the TransCanada Highway. Should the relocation not be approved by all necessary parties, then the existing



structure and the existing Stewart Creek Across Valley Corridor alignment would remain in place. If the alignment is relocated, retaining the existing wildlife underpass at Stewart Creek would also be subject to regulatory approval and any connection to it from the realigned Stewart Creek Across Valley Corridor comes with the stipulation from TSMVPL that no land beyond that shown in the attached figure is removed from development, whether through Provincial request or municipal land uses, setbacks or other municipal regulation with respect to layering, buffering, setbacks or similar restrictions for environmental or wildlife considerations. A portion of the existing Stewart Creek Across Valley Corridor immediately east of Stewart Creek Phase 3 (bounded to the north by the Province's NWS14-24-10-W5M parcel, bounded to the south by Stewart Creek Golf course and bounded to the east by the proposed west border of the across valley portion of the Smith Creek Along Valley Corridor) would then once again become completely developable lands under the NRCB Decision 9103 as shown in TSMVPL's proposal.

As noted previously, we retained Golder to evaluate the proposed Smith Creek Along Valley Corridor (Golder 2020). Golder determined that the proposed Smith Creek Along Valley Corridor adheres to general biophysical principals of corridor design that have been discussed with Alberta Environment and Parks in the recent past, and numerous wildlife movement studies and papers. Overall, habitat suitability modelling, based on species-specific radio telemetry data collected in the Bow Valley and shown in Golder 2020 attached, demonstrates that the majority of the proposed Smith Creek Along Valley Corridor includes habitat that is preferred by grizzly bears, cougars and elk. It is greater than 350 m in overall width, significantly so at over 675 m, and with very minor deviations is useable by wildlife over its entire width over all seasons.

Although there are a number of discontinuous small cliffs interspersed within the proposed corridor in a couple of areas, they are not acting as an impediment to movement by wildlife as shown by the data we have provided and discussed with the Province since the June 2018 correspondence. We have presented snow tracking data representing actual animal movements paths, and telemetry locations and camera data documenting substantial use by wildlife of this area. TSMVPL recognizes that there is some local narrative that assumes that slopes over 25 degrees are not used by wildlife and are an impediment to movement, however, as the in-field data we have provided, and that the Province has collected, demonstrates, this assumption underlying the local narrative is not supported scientifically in this context.

The TSMVPL team focussed on using actual location-specific movement data collected in the field for years to evaluate the effective width and location of our proposed Smith Creek Along Valley Wildlife Corridor, as was intended by the NRCB in their 1992 NRCB Decision Report, page 10-38 where they stipulated:

- 1) "The Applicant proposed that wildlife corridors be legally designated and the Board would recommend such action to (AEP)";
- 2) The minimum width for primary corridors is 350 m;



- 3) "Widths and locations of corridors be reviewed with the full range of species that are expected to make use of each corridor in mind";
- 4) "That measures such as bundling road, utility line and pathway crossings be adopted to minimize fragmentation of corridors"; and,
- 5) "That corridors correspond with known movement routes of the animals."

Multiple well-used wildlife trails above, below and through these discontinuous features demonstrate that wildlife are significantly using and moving through this area without material impediment even with the current significant level of dispersed human and pet use in the corridor. The new proposal is based on a significant amount of data that was not a part of our previous submission, also including data from the Province, that clearly show heavy, ongoing and sustained wildlife use of our proposed corridor which is physically over 675 m wide. As Golder's evaluation of corridor efficacy shows, estimated functional width exceeds 600 m for all species, and for many species such as grizzly bears, cougars, and deer, functional width is demonstrably much wider, exceeding over 1000 m. Clearly, our proposal for the Smith Creek Along Valley Wildlife Corridor meets and exceeds the intention of NRCB Decision No. 9103, as:

- 1) It is proposed to be legally designated;
- 2) Is much larger than 350 m with a proposed width of over 600 m;
- 3) Has been reviewed with the full range of species expected to make use of it;
- 4) Measures such as bundling roadways, utilities and pathways will be adopted when crossing the across valley portion; and,
- 5) Importantly, our proposed corridor corresponds with known movement routes of animals as shown by the data provided and the Province's own data.

We have widened the eastern portion of the proposed Smith Creek Along Valley Wildlife Corridor as a result of a detailed topographic survey that was reviewed in the field by experienced wildlife specialists in response to the Province's correspondence of June 2018. As such, the proposed corridor does not contain any notable or material impediments to wildlife movements. The corridor represents known movement routes of wildlife through the area and includes preferred movement routes; wildlife trails occur throughout the proposed corridor and current remote camera monitoring has shown that they are used by a wide variety of wildlife, including carnivores like cougars and wolves (Alberta Environment and Parks, unpublished remote camera data). The proposed Smith Creek Along Valley Corridor alignment has been ground-truthed numerous times, including visits with representatives of Alberta Environment and Parks, the Town of Canmore and community members. The alignment makes good use of existing abandoned mining roads which wildlife frequently use, along with numerous wildlife trails and natural breaks that contour along the slopes, creating natural movement routes for wildlife. Finally, because the proposed corridor borders a provincial park on the south side, there will only ever be development on one side of the Smith Creek Along Valley corridor.



With the proposed addition of wildlife conservation fencing along the north border of the existing designated Along Valley Corridor and this extension to the east separating wildlife from TSMV and other developments, legitimate human use in the corridors will be primarily on designated trails. Wildlife in the corridor will not be able to stray into developed areas, thereby avoiding the issues occurring on the school fields in the Stewart Creek community and elsewhere in Canmore like Centennial Park. This will also increase corridor functionality and reduce human/wildlife conflict risk. Wildlife conservation fencing will similarly increase the functionality of the Stewart Creek Across Valley Corridor.

Human use, including walking, off-leash dogs and mountain biking, in the existing approved wildlife corridors and habitat patches in and around Canmore currently has an adverse effect on the ability of these undeveloped areas to serve as undisturbed habitat and movement routes for wildlife. Although this situation has been well known for over a decade, and some progress has been made, data from remote cameras around Canmore indicate that there are more people and their pets using the wildlife corridors than wildlife. In addition, wildlife human conflict in and around Canmore is an on-going challenge for both the Town of Canmore and Alberta Environment and Parks. Elk present human safety concerns in town and bears continue to be removed at an unsustainable rate. The Bow Valley was considered a mortality sink for bears in 2013 (Golder 2013) and that situation has not changed since then. Previous development approaches using soft edges or “layers” to reduce sensory disturbance in an adjacent wildlife corridor have not been successful because habituated wildlife are attracted to development/human areas. In addition, the soft edge or layered approach has led to many questions as to where the actual corridor is by residents and visitors to Canmore, and continued heavy and dispersed use by humans of the corridor lands.

Accordingly, a hard edge in the form of a wildlife conservation fence is proposed to border the entire Along Valley Corridor to clearly demarcate the corridor. Two distinct fences will separate all new TSMV development in the Three Sisters Village and Smith Creek ASPs, respectively, and in doing so will also protect large portions of existing development around Stewart Creek and other communities on the south side of Canmore. The proposed fence will prevent wildlife from entering the developed area and will also reduce the significant amount of dispersed human use within the wildlife corridor because entry into the corridor will be restricted to designated trails connected to the regional trail network entering through designated gates in the wildlife conservation fence. Fencing has been successfully used to separate people and wildlife in a wide variety of applications across North America, including nearby Banff National Park, and globally. We believe it is a reasonable solution to help mitigate wildlife human issues currently faced by Canmore. Although it may be perceived as an inconvenience and a change of culture for some residents and visitors to Canmore, we believe it will facilitate wildlife movement for many species including grizzly bears, black bears and cougars, to continue to successfully move through the Bow Valley via the corridors.

The total area of the wildlife corridor has been increased to approximately 553 ha, and notably the vast majority of TSMVPL’s lands subject to the NRCB Decision No. 9103 and currently considered for development under Canmore’s DC1-98 land use bylaw in this area would become wildlife corridor as a



result of this submission. The submission identifies approximately 73% of TSMVs owned land in Site 9, along with approximately 63% of TSMV owned land in Sites 7 and 8 over and above what is already approved and in place today. The current land use bylaw in Sites 7, 8 and 9 permits approximately 378 acres of gross developable area in total, and our proposal would see a physically reduced gross developable area within the total Site 7, 8, and 9 area to approximately 250 acres. The proposed Smith Creek Along Valley Wildlife Corridor would likely see the need for some land use changes (which are clearly permitted under the Province's MGA, and even explicitly referenced in Section 6.9.2.7 of DC1-98).

TSMV is currently in an Area Structure Plan process with the Town of Canmore, which is the first stage to new land use bylaws in this area, and this Area Structure Plan will reflect the proposal herein should it be accepted by the Province to reflect proposed wildlife corridors and accordingly, adjusted developable land areas. New land use bylaws to replace those lands currently zoned DC1-98 are routinely undertaken as development occurs, and are even explicitly required under Sections 6.9.11.1, 6.9.11.2, 6.9.12.1, 6.9.12.2, 6.9.13.1, 6.9.13.2 and many other areas of DC1-98, Canmore's current MDP, and Canmore current Land Use Bylaw 22-2010). Such adjustments for re-allocating wildlife corridors and developable lands have occurred previously in TSMV, an example of which would include the work undertaken for Bylaw 23-2004 "Resort Centre Area Structure Plan," and so TSMV will undertake these land use considerations to reflect our proposed Smith Creek Along Valley Corridor and reallocate developable land accordingly should the Province approve our proposal.

The average overall width of the Smith Creek Along Valley Corridor has increased to over 675 m, another response to the Province's June 2018 correspondence. Over 89% of the proposed wildlife corridor consists of areas with slopes less than 25 degrees. Isolated and discontinuous slopes over 25 degrees cover approximately 11% of the area, but are found in small patches that have been documented with field data to not present impediments to movement.

To further improve this submission and building on our previous work, we are also committed to working with the Province to improve habitat in selected locations within the proposed corridor lands. This will involve signage to deter unmanaged human use by hikers, walkers, humans with pets and bikers in the corridors themselves, and by implementing the recommendations outlined as applicable to private landowners within the June 2018 Human Wildlife Coexistence Recommendations Report. TSMV will work with the Town and the Province to undertake an education and enforcement campaign to maximize efficacy of fencing and achieve compliance with trail use, off-leash dog use, and seasonal closure regulations within wildlife corridors. This is especially important for existing residents, who may be using wildlife corridors inappropriately because they may be unaware of legal requirements or the location of corridor boundaries and have been treating the corridors like recreation areas instead of wildlife spaces (Town of Canmore 2015; Derworiz 2015).

Finally, TSMVPL has secured agreement from the owners of Thunderstone Quarries, to offer land outside of our property to the Province for use as wildlife corridor as noted in the figure herein.



Importantly, Thunderstone Quarries is a private property not subject to the requirements of NRCB Decision No. 9103 and subsequently has no obligation or requirement to provide land or other measures to support wildlife corridors. TSMVPL's ability to secure such agreement should be seen as an important and highly beneficial aspect of our submission. This is notable given the existing constraints arising from the private property of Banff Gate Mountain Resort on the east side of George Biggy Sr Road, ongoing use of the Kananaskis Gun & Archery Club on George Biggy Sr Road, and the trail heads leading to the Wind Valley. TSMVPL is pleased to be able to secure the agreement of a private landowner for this supplemental land to add to the Smith Creek Along Valley Corridor for the benefit of our submission. TSMVPL would request that the Province also formally designate the portion of the proposed Smith Creek Along Valley Wildlife Corridor to the east of George Biggy Sr Road leading to the G8 underpass, such that this corridor is protected and which would also explicitly allow for Thunderstone Quarries properties to be redesignated for development. While the quarry is continuing its legal mining operations at this time, preparation of an Area Structure Plan that comprehensively includes development of Thunderstone Quarries property after mining is complete is good planning practice, would represent an excellent opportunity to reclaim a former industrial site to productive uses outside of wildlife corridors, and assist in Canmore's economic diversification.

TSMVPL's ability to secure an agreement with Thunderstone Quarries is particularly notable given the constraints in the general area arising from steep creeks, roadway connections, utilities, future access requirements, future servicing requirements, and the limited amount of land remaining after the proposed Smith Creek Along Valley Corridor is potentially established in this area. The addition of the Thunderstone Quarry lands offers additional land for corridor within a ravine well used by wildlife leading to Pigoen Creek. While we recognize that some advocates would like to see no development in Site 9 generally, the NRCB Decision No. 9103 determined that development of Site 9 and the other areas of TSMV is appropriate and in the public interest.

This proposed corridor in combination with previously-approved wildlife corridors on the south side of Canmore will result in the formal completion of a wildlife corridor and habitat patch network in the Bow Valley between Banff National Park and Kananaskis Country, a significant benefit to the wildlife and the people of the Bow Valley. The wildlife corridor network as proposed would also have no need for any additional "layers," buffers, setbacks or other similar municipal or provincial restrictions for environmental or wildlife considerations, and provide certainty for the developer and the Town alike with respect to development. We would request that should the Province approve our proposal, that Province explicitly confirm that no additional "layers," buffers, setbacks or other similar municipal or provincial restrictions for environmental or wildlife considerations, and provide clarity for the developer and the Town alike. The inclusion of a wildlife conservation fence separating development from the wildlife corridor will materially reduce the current dispersed human use in the corridor and in parallel, reduce the movement of habituated wildlife into developed areas, reducing existing and potential future wildlife conflict.



As discussed, and as the Province has agreed, the additional lands within Site 7,8 and 9 proposed herein, at the request of the Province, is over and above what TSMVPL has already provided for the provincially approved and designated Along Valley Corridor, and accordingly is over and above what the landowner is required to provide under the NRCB Decision No. 9103. This requested extra land dedication is subject to compensation to TSMVPL either in the form of a land exchange acceptable to TSMVPL and/or financial compensation or a combination of both. As discussed, TSMVPL is quite willing to potentially acquire Crown lands within the NE and NW quarters of S12-24-10-W5M or other nearby areas based on fair assessment and valuation of both Crown lands and TSMVPL lands being proposed. We also note that as discussed, TSMVPL would be open to discussing having the Province acquire TSMVPL private property already within existing approved and herein proposed corridors like the Tipple Across Valley Corridor, such that those lands become Crown property and therefore would be consequently protected from private development, and in many areas would be an easy addition to the existing Bow Valley Wildland Provincial Park should the Province so choose.

We look forward to hearing from you regarding this submission. We believe that you will find it to address all the points raised by the Province as an overall whole, incorporates two years of public feedback into its revisions, and that it represents the essence and core of the last year of discussion with you and your team, and will therefore be quite familiar to you. We thank you and your team for your guidance, feedback and patience in discussing this important matter given its history and complexity.

If you have any questions or require further information on this submission, please don't hesitate to contact me directly at any time.

Sincerely,

Three Sisters Mountain Village Properties Ltd.

A handwritten signature in blue ink, appearing to be "C. Ollenberger", written over a light blue horizontal line.

Chris Ollenberger, P.Eng.
Director, Strategy & Development

cc: David Taylor, Three Sisters Mountain Village
Kyle Knopff, Golder

Encl: Figure – Proposed Smith Creek Along Valley Corridor
Golder 2020 – Evaluation of the Smith Creek Wildlife Corridor

