

Three Sisters Mountain Village Properties Ltd. Smith Creek Wildlife Corridor Application
June 26, 2018

I. Introduction

a. NRCB Decision

On October 9, 1991, Three Sisters Golf Resorts Inc. filed an application (# 9103) with the Natural Resource Conservation Board (the “NRCB”) for approval to develop a recreation and tourism project on the present site in the Bow Valley and adjacent lands within the Wind Valley. In November 1992, the NRCB released its Decision Report on the application in which it approved Three Sisters Resort Golf Resorts Inc.’s tourism and recreation project to be developed on Three Sister’s private lands in the Bow Valley but did not approve development in the Wind Valley.

This approval was provided subject to several conditions, including Condition 14 in Schedule C-2 which required the following:

“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”.

And the following recommendation:

Appendix D-5 Recommendations to Alberta Forestry, Lands and Wildlife: It is recommended to Alberta Forestry, Lands and Wildlife that locations for wildlife corridors be legally designated and that in determining their locations and widths, primary corridors should not be narrower than 350 m except in unusual circumstances, that widths and locations be reviewed with the full range of species that may make use of them in mind, that corridors be located to allow movement across adjacent properties, that measures such as bundling road, utility line and pathway crossings be adopted, and that corridors correspond with known movement routes of the animals.

The NRCB’s approval was authorized by the Lieutenant Governor through Order In Council 8/93 dated January 6, 1993. This gave Alberta Forestry, Lands and Wildlife (now Alberta Environment and Parks - AEP) the authority to evaluate the design of the wildlife corridor as proposed by Three Sisters Mountain Village Properties Ltd. (the current owner of the project - TSMVP) to ensure satisfactory wildlife movement. This authority has been delegated to myself, through Ministerial Order 41/2016 dated November 16, 2016.

b. History/Background

Since 1992, TSMVP and its predecessor company has developed its property and the wildlife corridors in stages. On February 10, 1998 AEP (as it was then) issued a letter in which it approved the multi-species wildlife corridor along the southern and western boundary of Three Sisters Resorts land (currently referred to as the “Along Valley Corridor”). The approval was informed using basic criteria in the identification of wildlife corridors of a linear land base of

sufficient width (350m as recommended by the NRCB) that was unencumbered as much as possible by development, contained no impassible topographical or vegetation features, and consisted of adequate vegetation to meet the hiding cover and thermal cover requirements of wildlife. The remaining portion east of the section line (Sec 11 Twp 24 Rge 10 W5th) to the Wind Valley and the Bow Valley through the G8 Legacy wildlife underpass at Dead Man's Flats remained to be approved.

Subsequently, AEP (as it was then) believed that the approved corridors were not functioning properly due to issues with slope and width, and discussions were held with TSMVP to improve corridor function. On May 20, 2003, AEP approved a revised corridor alignment on the previously approved corridor, resulting in a wider corridor as well as a 35m-wide buffer on the corridor from developed areas, the latter being implemented under the authority of the Town of Canmore.

In the following years after the approval of the western portion of the corridors, development of the existing Three Sisters Mountain Village occurred including development of residences and completion of the Stewart Creek Golf Course. A second golf course (Mineside) and golf academy were initiated but not completed and now forms a major portion of the existing approved wildlife corridor via Conservation Easements. Additionally, Government of Alberta installed the G8 Legacy wildlife underpass east of Dead Man's Flats in 2004 facilitating wildlife movement under the Trans-Canada Highway.

On January 26, 2017, QuantumPlace Developments Ltd., on behalf of Three Sisters Mountain Village Properties Ltd., submitted an application to AEP seeking its approval of the remaining portion of the wildlife corridor (the Application). As previously noted, I have been delegated the authority to evaluate the wildlife corridors contained in the Application as well as the wildlife aversion conditioning plan on behalf of AEP pursuant to Ministerial Order 41/2016 dated November 16, 2016.

TSMVP has addressed the requirement to prepare a wildlife aversive conditioning plan. The Wildlife Human Interaction Prevention Plan (WHIPP) was initially developed and approved in February 1999 and later revised September 14, 2004. The 2004 version was resubmitted by TSMVP as part of this Application on April 7, 2017. I have reviewed the WHIPP and find it generally acceptable. As this aspect of Condition 14 has been satisfied, my decision will consider the remaining requirement to develop a detailed design for wildlife movement corridors. I note, however that TSMVP has not implemented all aspects of the WHIPP to date. AEP expects that TSMVP will implement most if not all aspects of the WHIPP in both existing and future developed areas of its land base, including distribution of homeowner education manuals, trail signage, lighting requirements and attractant management as laid out in the approved WHIPP.

II. Wildlife Corridor Background

As noted in the Application, over the years increasing municipal and industrial development, tourism and recreational activity in the Bow Valley has led to increasing wildlife habitat degradation, fragmentation and displacement of wildlife from habitat in the Bow Valley. The designation and ongoing management of wildlife corridors is an attempt to reduce these adverse effects, largely by providing natural spaces for wildlife to live and travel undisturbed by humans.

Wildlife corridors ideally will enable full genetic exchange between individuals and subpopulations by providing movement opportunities for breeding adults, dispersing sub-adults, surplus individuals seeking territories, and wandering individuals during daily movements and seasonal migrations. Corridors function at scales ranging from large regional corridors, to small

local corridors that link patches of local habitat. The TSMVP wildlife corridors (existing and proposed) are localised corridors that form part of the larger network of wildlife corridors in the Bow Valley, which in turn are part of a larger matrix of wildlife habitat across the Rocky Mountains.

The proposed TSMVP Smith Creek wildlife corridors connect the habitat patches of Quarry Lake and Georgetown to the Wind Valley, as well to the Bow River and the north side of the Bow Valley through wildlife underpasses. The primary purpose of the wildlife corridors as identified in the NRCB Decision report is to ensure that the TSMVP development would be built in a way that ensures wildlife movement is enabled along the valley (east to west) and across the valley (north to south). The NRCB decision report recommended that wildlife corridors be no less than 350m and be designed to allow movement for a full range of species.

III. Summary of the Three Sisters Mountain Village Ltd. Smith Creek Application

Three Sisters Mountain Village Properties Ltd. has made an Application with the following attributes:

- The Smith Creek “Along Valley Corridor” encompasses lands that lie east to west approximately 2.5 km through TSMVP’s Smith Creek lands. This includes 111.18 ha on the south side of Site 9, and another 63.48 ha within Site 7/8 for a total of 174.66 ha of private land proposed to be dedicated as wildlife corridor. The proposed corridor connects the existing wildlife corridor east of Smith Creek with the existing Wind Valley Habitat Patch in the west and the existing Bow Flats Habitat Patch through the G8 Legacy wildlife underpass at Deadman’s Flats.
- The additional land on Sites 7/8 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 corridor planning documents. The northern border of the corridor consists of a single smooth edge without any disconnects. The border was also adjusted to encompass the largest fen wetland on the TSMVP lands.
- The Application also proposes to realign the Stewart Creek “Across Valley Corridor” approximately 300 m to the east, to an area which is a natural movement corridor for wildlife and centering the corridor on the location of a proposed new wildlife underpass across the TransCanada Highway. The Stewart Creek “Across Valley Corridor” realignment is proposed as an option, subject to Alberta Transportation and other appropriate regulators approving a new wildlife underpass beneath the TransCanada Highway. If approved, the existing location of the Stewart Creek “Across Valley Corridor” would revert to developable lands.
- The additional 63.48 ha within Site 7/8 proposed is subject to a land exchange between the Province of Alberta and TSMVP. TSMVP has expressed a willingness to acquire Crown lands within the NE and NW quarters of S12-24-10-W5M. This potential land exchange would be based on fair assessment and valuation of both Crown lands and TSMVP lands being proposed for land exchange, and would follow the Government of Alberta’s normal land exchange process. TSMVP is also proposing having the Province acquire TSMVP private property already within existing approved and proposed corridors.

IV. Decision Making Process

An extensive process has been undertaken to review the TSMVP Application, receive public input on the Application and arrive at a final decision. The entire process has been publicly transparent. All documents related to the Application including the Application itself, AEP's requests for additional information, TSMVP's responses to those requests, and all public input received were posted on the Alberta Environment and Parks website as they were received (within days of receipt by AEP).

Three Sisters Mountain Village Properties Ltd. has provided the following documents as part of its Application:

- Letter from Quantumplace Developments Ltd., as authorized agent on behalf of TSMVP, dated January 26, 2017;
- Report titled "Wildlife Corridors for Smith Creek; An Evaluation", prepared by Golder Associates dated March 2017;
- Report titled "Submission In Response to April 7, 2017 Request for Additional Information", prepared by Golder Associates, dated April 18, 2017;
- Report titled "Response to AEP Letter of 11 August 2017", prepared by Golder Associates, dated October 17, 2017; and
- Report titled "Wildfire Risk Assessment Three Sisters Mountain Village Resort Center and Smith Creek" prepared by Montane Forest Management Ltd., dated September 28, 2017.

Alberta Environment and Parks made two requests for additional information from TSMVP, one dated April 7, 2017 and one dated August 11, 2017. Both requests for additional information were sent to TSMV under my signature and made available for public viewing on the AEP website.

Alberta Environment and Parks has received 439 letters from the public containing input on the TSMVP Application. These were all posted on the AEP website for public viewing.

I also attended two public information sessions regarding the Application:

- TSMVP hosted an Open House in Canmore on March 16, 2017 where they shared the Application with the public, answered questions and received public input. Two hundred twenty two people attended the Open House and TSMV received 325 comments regarding the Application. I attended the Open House with several of my staff. TSMVP published the feedback that it received from the public and responses to the feedback in a report titled "Summary of Feedback" dated March 28, 2017. This report was made publicly available on the AEP website.
- I attended a public "Listening Session" hosted by Yellowstone to Yukon Conservation Initiative in Canmore on March 28, 2017. TSMVP staff were also in attendance. Approximately 40 people attended the session.

In making my decision I reviewed all materials provided by TSMVP, all public input and a multitude of publicly available scientific (peer-reviewed) and technical (non-peer reviewed) reports regarding wildlife corridors and wildlife habitat use, particularly those directly related to the Rocky Mountain ecosystem.

In my evaluation of the TSMVP Application I consider the purpose of wildlife corridors in the Bow Valley to be the following:

- Allow for full exchange of genetic material between individuals and subpopulations, thus maintaining genetic diversity of wildlife subpopulations;
- Allow for dispersal of young from their natal areas to other area in order to establish new home ranges;
- Allow wide ranging individuals to access important seasonal habitats in order to meet year round life requirements; and
- Reduce the potential for negative wildlife/human conflicts by providing safe movement options around developed portions of the valley thereby minimizing wildlife movement through human development.

My evaluation of the Application is grounded on ensuring that the above mentioned purposes of wildlife corridors will be achieved over the very long term (decades and even centuries). This is because the TSMVP Application is for a housing and commercial development which is highly unlikely to be altered or undone once it is built. The development will be a permanent part of the landscape and therefore the wildlife corridors must be able to support the full range of natural wildlife movement for decades to come.

V. Decision

I have determined that the Application is not satisfactory. The Application contains several positive aspects to maintain wildlife movement but there are deficiencies which must be addressed to ensure that the wildlife corridors will achieve the purposes stated above over the very long term. There are two areas of deficiency:

1. The width of the proposed wildlife corridor at the eastern end of the Smith Creek property; and
2. The width of the Stewart Creek Across Valley wildlife corridor.

The width of the proposed wildlife corridor at the eastern end of the Smith Creek property

The eastern end of the proposed corridor is an important area for wildlife movement. It connects the Bow Valley and the Wind Valley and provides safe passage for wildlife under the Trans-Canada Highway through the G8 Legacy wildlife underpass to the Bow Valley Flats. Wildlife use of this area is currently impacted (outside of the TSMVP land base) by the Thunderstone Quarry, the Banff Gate residential development and the Kananskis Gun and Archery Club. All of these existing developments likely partially impede wildlife movement through the area and the effectiveness of the proposed Smith Creek corridor is considered within this context.

The proposed wildlife corridor at the eastern end of the Smith Creek property contains discontinuous steep slopes which in my view will partially impair wildlife movement. I note the information provided by TSMVP in response to my request for additional information on this issue, namely that wildlife trails are found throughout the discontinuous steep slopes and that wildlife telemetry data shows animal locations on both sides of the slopes. However, the preponderance of published scientific and technical reports on habitat selection by grizzly bears, cougar, elk and wolf in the Rocky Mountain ecosystem point to a preference for flatter habitats and an avoidance of steep slopes. While this portion of the corridor will certainly allow for movement by some individuals throughout the year, it is unlikely to accommodate full movement by all species, and age and sex classes within species during all seasons. Currently as

per the Resource Selection Functions provided in the Application, this area varies from used as available to somewhat avoided by the majority of species (wolf, summer grizzly bear, and winter cougar).

The distance between the area of discontinuous steep slopes and the northern edge of the proposed wildlife corridor appears to be at or less than 350 m. If the width of the corridor at this location could be widened to between 400 m and 450 m there would be enough room for wildlife to move through this area unimpeded.

The Width of the Stewart Creek Across Valley Corridor

The proposed re-alignment of the Across Valley wildlife corridor is an important aspect of the TSMVP Application. The Trans-Canada Highway is a significant impediment to wildlife movement across the Bow Valley and without a sufficient number of safe crossing points (such as underpasses and overpasses) subpopulations of wildlife species north and south of the highway can become genetically isolated.

The proposed Across Valley corridor at Stewart Creek is approximately 600m long, averages 354m in width and is 293m wide at its narrowest point. The Application describes the proposed Across Valley corridor as being at slightly higher risk of being ineffective if the Application is approved due to the resulting residential development on both sides of the corridor and animals being required to cross underneath both the Three Sisters Parkway and the TransCanada Highway. The Application states that these factors are likely to result in minor reductions in habitat quality for grizzly bears, cougars and elk.

I agree that the mitigations provided by TSMVP (TSMVP submission on April 18, 2017) will assist in minimizing avoidance of proposed Across Valley corridor and I am confident that the corridor will be used by some animals. However, I disagree with TSMVP's assertion that the proposed Across Valley corridor will function satisfactorily. The corridor must be wider than currently proposed in order to ensure that the underpass will be used by as many animals as possible and to mitigate the minor reductions in habitat quality due to the adjacent disturbances. A corridor that is approximately 400m wide on average and no less than 350m wide at its narrowest point would be better able to achieve the purposes of this corridor.

I also disagree with TSMVP's assertion that "Grizzly bears, cougars and elk in the Bow Valley are habituated to human disturbance and with fencing, are predicted to use the corridor." (TSMVP submission on April 18, 2017, Section 5). While this may be true for animals that live entirely or almost entirely within the Bow Valley, this is certainly not true of dispersing sub-adults, females with young, or adults whose home ranges only partially overlap the Bow Valley or are encountering the Bow Valley for the first time. As noted earlier, my criteria for decision making with respect to this Application is to ensure that all animals that try to use the proposed corridor can do so unimpeded and that the corridor does not "filter" certain individuals.

Other Matters: The Integration of FireSmart Practices within the Wildlife Corridor

I have reviewed Section 3.3 (Vegetation Management Options) of the materials provided by TSMVP regarding the proposed FireSmart Practices within the wildlife corridor (TSMVP submission on October 17, 2017). I find the material generally acceptable. I understand that detailed fire risk assessments and fuel modification prescriptions will be developed at a later date, and that these detailed plans will be consistent with the information provided as part of this

Application. I encourage TSMVP to continue to work with Alberta Agriculture and Forestry, AEP and the Town of Canmore to ensure that appropriate FireSmart activities are carried out and that these do not significantly impact the functioning of the wildlife corridor.

VI. Conclusion

TSMVP's Application has several positive aspects and I appreciate the extensive work that has been done to date. However, viewed in its entirety I do not believe that the Application will achieve the purposes of wildlife corridors which I outlined in Section 4 of this document. My reasons for this decision and suggestions for improvement are outlined in Section 5.

Sincerely,

Original signed by:

Roger K. Ramcharita
Executive Director
Alberta Environment and Parks

June 26, 2018