

Assignment 3: Major Assignment – Design an Environmental Assessment

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ENVS305: Environmental Assessment

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August 2, 2021

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Introduction

On May 4th, 2021, Rocky View County approved the development of Gateway Village, a \$100-million condo-hotel development on five hectares of land on the west side of Bragg Creek (Kaufmann, 2021). This hamlet of 400 residents found 20-kilometers west of Calgary will become home to a 120-room hotel with 170 units of owned and rented condos, expanded commercial amenities, pathways and a reflecting pond, an amphitheater, and improvements to the road network (Koetsier, 2020). For a town that just acquired its first set of traffic lights just before the 2021 May Long Weekend, a multi-million dollar development that will affect the town environmentally, economically, and socially must be thoroughly assessed (Dormer, 2021).

The Gateway Village development project must be subject to an environmental assessment for several reasons. First, Bragg Creek is arguably an essential wildlife corridor as it is situated adjacent to the Bragg Creek Provincial Park, a major home for wildlife in the area (Kemp, 2020). Not only is the hamlet of Bragg Creek situated along an essential travel route for animals moving into and out of the provincial park, but it is also located within the boundaries of the major wildlife corridor running from Yellowstone National Park to the Yukon (Kemp, 2020). Second, Bragg Creek is in direct proximity to the Elbow River which flooded catastrophically in 2013. The land the development is slated for is in the direct floodplain of the river which means that if the river was to breach its banks, the entire development would be flooded (Alberta Floods, n.d.). Additionally, the increase in impervious cover that would occur with the development of the project would increase runoff thereby potentially causing increased flooding or worsening flooding conditions. Third, it is unclear if Bragg Creek could support more residents given that the hamlet is situated in the Elbow River drainage basin which already supplies water to 1 in 6 Albertans through multiple already-secured water leases (Elbow River Water Management Plan Steering Committee, 2009). The Elbow River supplies water to the Kananaskis Improvement District, Rocky View County (including Bragg Creek), the Tsuu T'ina Nation, and the City of Calgary, all of which are looking

to increase their hold on the river to provide for their growing populations (Elbow River Watershed Partnership, 2021). Furthermore, the capacity of the Elbow River watershed to provide potable water and the ability of the ground to accommodate additional private sewage treatment systems effectively and efficiently has yet to be assessed (Rocky View County, 2007). Fourth, the overall geography of Bragg Creek is not conducive to increased intensive development due to its location on the Elbow River floodplain. Seasonally high groundwater conditions, slope instability, high water tables, potential alluvial aquifer contamination, and slow groundwater recharge are all issues that need to be assessed in relation to this approved development (Rocky View County, 2007). Finally, the development project must be assessed against social and economic criteria, including the hamlet's ability to support additional inhabitants and visitors from an infrastructure and economic perspective, the resident's willingness to support the development from a social perspective, the hamlet's willingness to potentially become the next Canmore or Banff, and the willingness of the Tsuu T'ina Nation and the Stoney Nakoda Nation to support the development which would increase visitor- and infrastructure-related traffic through and around their reserves.

This paper describes the importance of conducting a high-quality environmental assessment while also walking through the steps of an environmental assessment and offering insight into how best design and carry out a successful and thorough environmental assessment process.

Carrying Out a High-Quality Environmental Assessment

While there is a specific process through which the environmental assessment should proceed, six specific principles should be used to govern the process:

- 1) Incorporating environmental assessment into the project planning process.
- 2) A fair and thorough public hearing process that occurs at the beginning and throughout the environmental assessment process.

- 3) A full and complete study on project alternatives including considering the null option.
- 4) A thorough risk assessment on environmental, social, and economic impacts.
- 5) An assessment and analysis of potential cumulative impacts the project may have.
- 6) A guarantee of post-project monitoring.

The aforementioned guiding principles are keys outside of the standard environmental assessment process that have been consistently missing from the majority of environmental assessments conducted since 1969 when environmental assessment became the standard. However, these standards have been found in the more noteworthy environmental assessments – notably the Berger Inquiry of the Mackenzie Valley Pipeline from the 1970s – that became the standard for high quality environmental assessments. Following these six principles are the key to carrying out a high quality and ultimately successful environmental assessment.

The Environmental Assessment Process

The environmental assessment process involves nine steps. Each of these nine steps is required to carry out a high-quality assessment and omission of one or more of these steps may result in a less accurate or thorough assessment. While legislatively the Gateway Village development is not required to undergo an environmental assessment as per the government of Alberta, an environmental assessment is a good way to develop an undertaking that is accepted by the community, is beneficial for the economy of the area, and is easy on the environment in a way that will preserve the area and the species found within it for the next generations to enjoy.

The environmental assessment process begins with identifying the purpose of the undertaking. This involves justifying why the undertaking is necessary and what it intends to accomplish. By identifying the purpose of the undertaking early on in the environmental assessment process, the scope of the assessment can be established. Ideally, it would be at this time that the undertaking planning process

would begin, in order to attempt to use the environmental assessment process to the best of its ability in developing an undertaking that will pass environmental assessment legislation. In terms of the Gateway Village development, the purpose of the undertaking is to provide amenities for the community to support increased tourism and improved livability.

It is at this time in the environmental assessment process, before the official environmental assessment has even begun to be written, that the community should be involved in a public hearing process where citizens can voice their concerns about the proposed undertaking. Providing the community with ample opportunities early on in the environmental assessment process to voice their opinions can help garner a clearer picture of how the undertaking will affect the community not just environmentally, but also socially and economically. As demonstrated by Justice Tom Berger during the Berger Inquiry of the Mackenzie Valley Pipeline in the 1970s, a fair and considerate public hearing process in which citizens are given the time, money, and freedom to express their concerns will offer the best results in terms of getting to use local knowledge to paint a better picture of the impact the undertaking would have on the community (Athabasca University, n.d.). During Berger's assessment, it was found that the proposed undertaking of a pipeline that would travel through Canada's north would not only harm the environment, but it would also harm the economy and Indigenous societies in the area (Athabasca University, n.d.). These findings set a precedent for the importance of using public hearings to find out if the proposed undertaking will actually benefit the community and those surrounding it. Public hearings are especially critical for this undertaking given that Bragg Creek borders the Tsuu T'ina Nation and the Stoney Nakoda Nation reserves, both of whom must be given equal and fair opportunities to express their opinions and concerns in a hearing process that isn't dominated by white expectations. Both the Berger Inquiry hearings and the hearings that occurred on the Alberta-Pacific bleached kraft pulp mill in northern Alberta exhibit how local knowledge is critical to undertaking approval and development yet is often overlooked during a rushed public hearing process (Richardson et al., 2010).

The second step of environmental assessment involves identifying alternatives that could be used to achieve the same purpose as the proposed undertaking. While a large multi-million-dollar development is one way of expanding tourism and the livability of Bragg Creek, an alternative option to fulfill the same purpose could include re-investing in current infrastructure to make it more tourist-friendly and improving town flood resilience to better support and protect larger populations in the area. In the case of environmental assessment, the null option must be considered as an alternative as well.

The third step of environmental assessment is to develop a set of alternatives for the undertaking. These alternatives differ from the set of alternatives developed in step two by instead focusing on how the proposed undertaking could be done just in an alternative way. For example, Gateway Village could be moved to a different location, could be reduced in size, or could be constructed in a more flood-resistant manner.

Once all of the alternatives for the undertaking are established, another public hearing should be held to allow citizens to comment on the proposed alternatives. The public will be able to offer advice on which of the alternatives, including the undertaking, would be the best option to benefit the community, the environment, and the economy. Furthermore, it is the public hearing process that will offer the greatest insight into potential cumulative impacts that the proposed undertaking or any of its alternatives may have on the environment, society, or the economy of the hamlet. Citizens may even be able to combine ideas or suggest compromises that the proponent has not considered. As was exemplified in the public hearing process for the Red Hill Valley Parkway development in Hamilton Ontario where the community was asked to participate in choosing between undertaking alternatives only for the proponent to eventually select the option they preferred regardless of the results of community participation, the voices of the community must be heard otherwise pushback on the undertaking is likely to ensue (Athabasca University, n.d.).

The fourth step of environmental assessment is to collect all of the selected alternatives from steps two and three and assess the impacts of each. The impacts throughout the lifecycle of the

undertaking must be taken into consideration, including the construction, operation, upgrading, and potentially the eventual closure of Gateway Village. Potential risks and admissions of any uncertainties of the impacts the undertaking would have are necessary to provide a clear picture of the impact of the undertaking. Where negative impacts can clearly be defined, mitigation procedures must be presented as a way to eliminate, reduce, or compensate for impacts. At this point in the environmental assessment process, baseline conditions of the proposed area where the undertaking will be constructed must be established. The Gateway Village land area should specifically undergo biological, chemical, geological, geographic, hydrological, and meteorological studies to understand the current state of the environment of the area. These studies will also help determine potential risks and impacts on soil, geology, surface water, groundwater, animal populations, and human populations if the undertaking proceeds. The results of these studies should be measured against provincial legislation pertaining to environmental assessment, specifically Section 16 and 17 of the Water Act which addresses an “Albertan’s right to divert water and describes the priority of water rights among users; the types of instruments available for diversion and use of water and the associated processes for decision-making; and the range of enforcement measures available to ensure the goals of the Act are met” (Water Act, 2017). Besides water usage rights, factors unique to the area in Bragg Creek where Gateway Village will be built that must be taken into consideration during the studies is its proximity to the Elbow River, its placement in the middle of an important wildlife corridor in both the east-west and north-south direction, and its placement in a hamlet that may or may not be able to support an influx of tourists whether economically, socially, or simply through groundwater leases. Finally, the impact assessment should be followed by a risk assessment on the environmental, social, and economic impacts the undertaking may have on the area and its residents, both animal and human. This risk assessment will both help guide the selection of a proper undertaking from all of the preferred options and it will help determine which risks are reasonable for the environment, the society, and the economy, and which are not. A public hearing at this stage could be instrumental in helping to determine additional impacts or differences in opinion on the risks that impacts could cause. As mentioned above, citizens of Bragg Creek and the surrounding areas are some of the best

sources of knowledge of the land, water, biodiversity, society, and economy that would be affected by the undertaking, and can help guide the proponent in gathering a deeper and more well-rounded understanding of the impacts and risks that could accompany any of the options for the undertaking.

The fifth step of environmental assessment is to compare and select the preferred option for the undertaking from all of the options listed and studied in steps two through four. Combinations of alternatives may be selected to fulfill the undertaking if these alternatives present the best way to avoid environmental and social impacts. A detailed planning of the preferred option may be completed to offer a complete picture of how the Gateway Village development will proceed. Depending on the options selected, Gateway Village may proceed to be built in the way that it was initially proposed, may take on a different look, size, or location, or may be re-imagined into a different way of completing the undertaking entirely.

The sixth step of the environmental assessment process is to prepare the environmental assessment document that outlines the results of the activities done during the first five steps. This document developed by the proponent will be forwarded to the Government of Alberta Regulatory Board who will study the assessment and determine if the undertaking is in the public interest. Upon receipt of the document, steps seven through nine of the environmental assessment process includes a review process by the Regulatory Board which may involve a public hearing, a public interest decision, a formal decision on the undertaking by the Regulatory board to approve, reject, or approve the undertaking under specific conditions, and finally, if the undertaking is approved, the implementation and continued monitoring of the undertaking (Government of Alberta, 2015). Post-project monitoring is often ignored or forgotten by the proponent yet is one of the most critical aspects that attempts to make environmental assessment successful. Without post-project monitoring, the entire environmental assessment process is rendered redundant because there is no definitive way to ensure that the undertaking remains within the parameters set by the assessment. It would be in the interest of the Gateway Village development, in the event that the environmental assessment and the undertaking is approved, to implement monitoring

procedures immediately at the outset of construction which would continue through the operation and potential (or eventual) closure of the development. By monitoring the undertaking at all stages in its lifecycle, predictions about potential impacts can be proven or disproven and any unexpected consequences or impacts can be noted to make improvements in future environmental assessments.

Conclusion

The proposed undertaking of Gateway Village in the hamlet of Bragg Creek brings with it a unique set of circumstances that highly suggest that the undertaking must be submitted to a rigorous and thorough environmental assessment. Be it its placement within a critical wildlife corridor passing from east to west and north to south through the area, its proximity to a river which overflowed its banks in 2013 and destroyed much of the infrastructure within the hamlet, or its location within a hamlet that may or may not be able to support additional tourist growth whether through water leases, socially, or economically, Gateway Village must be submitted to an assessment that ensures that the undertaking is in the best interest of the community and the environment that surrounds it.

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