

***PROPOSED PROJECT: GARIBALDI AT SQUAMISH***

To build a resort on Brohm Ridge (15km north of Squamish, 80km north of Vancouver and 45km south of Whistler), to provide year-round access to various mountain sports. Not only will this resort include accommodation and commercial developments, but it will also house 124 ski trails, and 21 lifts. Taking nearly 20 years to build, this project will create 900 jobs during its construction, and 2500 jobs while in operation.

The companies involved in this project are Northland Properties and Aquilini Investment Group of Vancouver.

***MY INVOLVEMENT:***

As a Natural Resource Planner hired by the companies involved, my job is to address the following issues that have been of debate in opposing this proposal:

- Potential risks to vegetation and fish & wildlife habitat in the project area
- The statement given by the Resort Municipality that “climatological considerations rule out reliable skiing on the lower 555m of vertical” of the resort
- Provide recommendations of measures that can be taken to prevent negative effects on the environmental, social, health, and economic aspects
- Highlight which issues need to be crucially addressed, and which are minor
- Provide findings and results in the form of a map, short answers, and this memo

***STEPS TAKEN TO ANALYZE DATA:***

In the simplest form, data of the geographical area, including the data of the environmental factors such as vegetation and animal habitats, along with existing roads, rivers, and the project area were retrieved via external and internal sources. Then, all the data were organized, and using ArcMap, the areas of all the environmental factors were compared to that of the project data. This enabled me to see how much of each environmental factor fell into the area of the project, hence allowing for a proper analysis of the potential negative impacts of this proposal. Finally, a map was created in order to outline the findings and to show which aspects would be the most and least affected if this resort were to be built.

***GENERAL RESULTS:***

(Please see attached map for more visualization)

When comparing the project area with various environmental factors, I found that:

- **6.781%** of the project area has old growth forest/vegetation.

- **7.886%** of the project area has Mule Deer and Mountain Goat winter habitat.
- **24.83%** of the project area has redlisted species
  - Redlisted species are those are at risk or endangered ecosystems living within the project area. These include:
    - Flat Moss
    - Flasebox
    - Salal
    - Kinnikinnick
    - Cat's-tail Moss
    - Caldina
  - \*note: Please refer to my written response sheet to see why "Deer Fern" is not on the above list
- **26.28%** of the project area will fall within fish bearing streams, or within fish habitat/riparian areas around streams, and is below 600m.

Based on these results, we can see that 65.8% of the total project area is covered with environmental aspects that would be negatively affected by the building of the resort. Hence, we can see that a majority of the land in question is quite an active place for various ecosystems to thrive in. Due to this, many measures need to be taken in order to ensure that building this resort will create the least harmful impact an all the above ecosystems.

***GREATEST ENVIRONMENTAL CONCERNS & MITIGATION METHODS:***

The two main issues that need to be addressed immediately would be the two factors that are of greatest risk. These are the **redlisted species areas** and the **area that is below 600m and contains fish bearing streams**. Both of these make up **over 50%** of the project area. The Mule Deer & Mountain Goat habitats, and the old growth forest/vegetation areas are more minor, as they take up much less of the project area.

Mitigation methods that can be put into place are most certainly decreasing the project size, or shifting the project area, to include the areas that are not as heavily affect by these environmental factors. Other methods include:

- Do not build ski slopes on the areas that are below 600m, as they could also pose a safety risk to users
- Use environmentally friendly materials when building the resort
- Moving some of these animals to similar nearby habitats (last option)