



Spring 2013

# Holiday Inn at the Bellingham International Airport: environmental impact assessment

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**DIGITAL RELEASE**  
**Environmental Impact Assessment**  
Huxley College of the Environment

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## DEAR CITIZENS LETTER

Dear concerned citizen:

This is an Environmental Impact Assessment for a new hotel coming to Bellingham, Washington. The Hotel Services Group, LLC will be constructing a Holiday Inn Brand Hotel adjacent to the Bellingham International Airport. This document will look at the environmental impacts of the project, as well as the impacts of the project's alternative action, and the no action alternative. This analysis is required by the Washington State Environmental policy act (SEPA) and is under WAC 197-11.

The EIA is being completed by Western Washington University students for the class Environmental Studies- 493 - Environmental Impact assessment taught by Jean Melious of Huxley College of the Environment.

The proposed hotel will include approximately 153 guest rooms, a full service restaurant, an indoor swimming pool, 7,000 square feet of meeting space, and roughly 300 stalls of underground and surface parking. The proposed location was selected due to its convenient proximity within the airport and that it can be seen from Interstate Five (I-5). However, there are important environmental concerns that must be addressed.

As part of this document, alternative proposals to accomplish the same objective will be examined. One of these is the idea of building the hotel on an alternative site. This site is located just down the street from the proposed site and is an economically viable option which also may reduce some of the environmental concerns.

Another option being examined is the no action alternative which would basically leave both sites unaltered. This document will detail the effects of the all three possible scenarios, and their relative impacts.

Please feel free as an informed citizen to contact us with any questions or concerns regarding this environmental impact assessment.

Sincerely,

The Bellingham International Airport Hotel EIA team

Ilsa Barrett, Tara Newman, Sara Scott, Kelsey England & Matt Fuget

# **Holiday Inn at the Bellingham International Airport**

## **Environmental Impact Assessment**

Environmental Studies 493  
Jean Melious

Sara Scott  
Tara Newman  
Kelsey England  
Ilsa Barrett  
Matt Fuget

This document represents a class project carried out by students of Western Washington University, Huxley College of the Environment. It has not been undertaken at the request of any people representing local governments or private individuals, nor does it necessarily represent the opinion or position of individuals from government or the private sector.

**Huxley College of the Environment  
Spring 2013**

## FACT SHEET

### Title

Bellingham International Airport Hotel

### Description of Project

The Hotel Services Group LLC will be constructing a hotel adjacent to the Bellingham International Airport terminal. The Holiday Inn hotel will include approximately 153 guest rooms, a full service restaurant, an indoor swimming pool, meeting space, and underground and surface parking.

### Description of Location

The proposed site is located north of the City of Bellingham, adjacent to the Bellingham International Airport in Whatcom County, WA. The latitude and longitude coordinates of the proposed site are approximately 48.797055°N, 122.530176°W. The site is located on currently vacant forested land on the east side of Mitchell Way.

### Proposal Entity

Huxley College of the Environment

### Lead Agency

Jean Melious, LLC

### Related Permits and Laws

#### Whatcom County

- Whatcom County Critical Areas Ordinance
- Whatcom County PUD and Specific Binding Site Plan permit
- All building permits (e.g. electrical, mechanical)

#### US Army Corp of Engineers

- Section 404 Nationwide Permit

#### Washington State Department of Ecology

- Section 401 Permit
- Coastal Zone Management (CZM) Certification

#### Washington Department of Fish & Wildlife

- Hydraulic Project Approval (HPA) Permit

#### Other Binding Laws

- Clean Water Act
- Growth Management Act

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## EXECUTIVE SUMMARY

The Bellingham International Airport located in Bellingham, Washington in Whatcom County, has a history dating back to 1941 and is currently owned by the Port of Bellingham. The Port of Bellingham is currently looking to expand its property and is opening up to commercial users in order to create jobs and economic growth within the community. They have a current project underway with the Hotel Services Group, LLC to implement the construction of a hotel.

The main objective is to construct a Holiday Inn Brand hotel next to the Bellingham International Airport in order to provide convenient lodging for travelers. The proposed full-service hotel will have 153 rooms, a full-service restaurant, an indoor pool, 7,000 square feet of conference room space, as well as 300 stalls of underground and surface parking (see Figure 2).

**Figure 1. Location of Bellingham International Airport, Bellingham, WA**



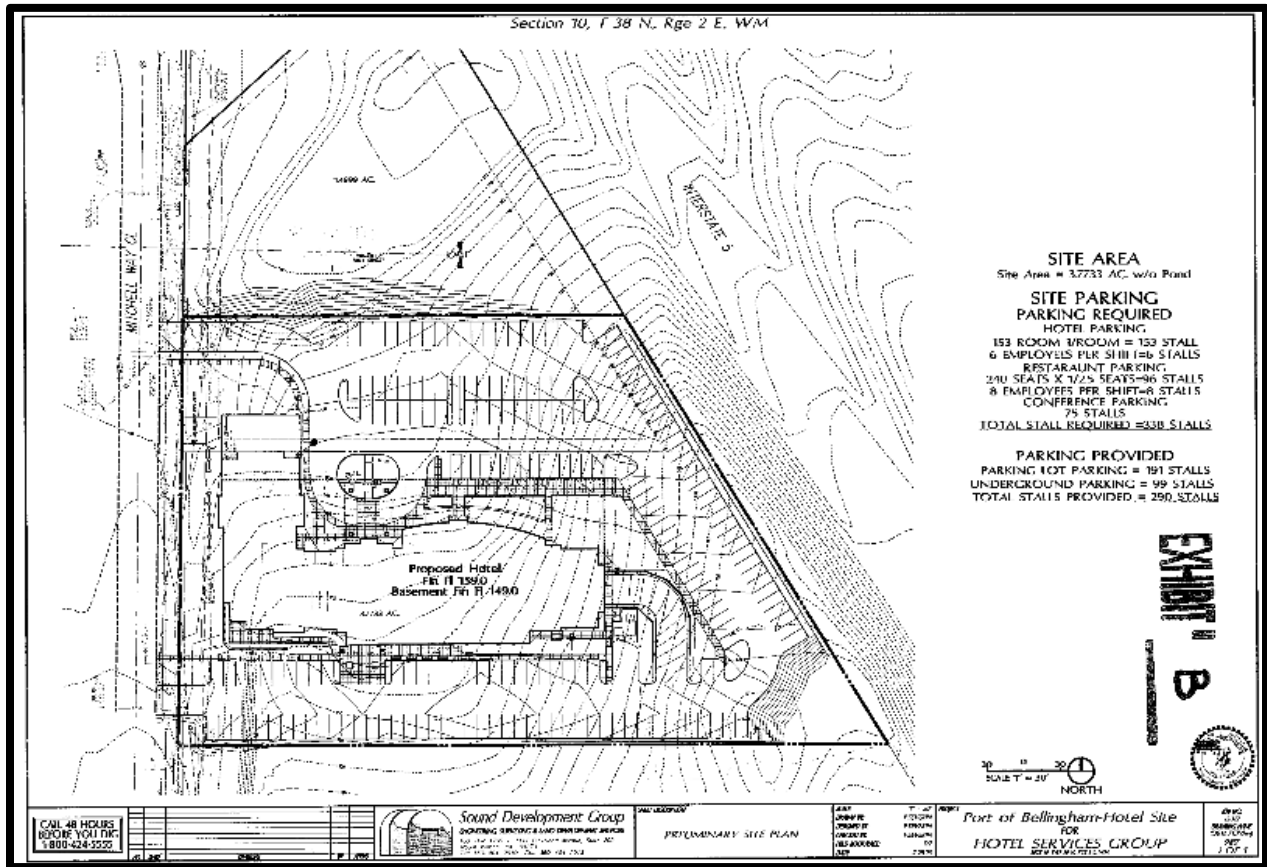


The proposed site is located in between the Bellingham Airport and Interstate Five (I-5). The hotel, as proposed, will be visible from the highway which is a substantial marketing advantage over the alternative site. The proposed site is also closer to the airport than the alternative.

Chapter two lays out all of the impacts the proposal can have on natural environment and the measures that can mitigate those effects. The site will be 98% covered with impervious surfaces, however mitigation measures , if implemented, will reduce the impacts on soil to the point of no significant impact. During its construction the project will produce significant greenhouse gasses, operation will produce some pollution as well. While many options are available to mitigate or reduce greenhouse gas emissions, none are required by law and none are being utilized by the developer. The proposed site is located directly on a wetland, the alternative site is not. This wetland is where the current stormwater runoff from the airport ends up and the proposed action will impact the ability to store water there. After the mitigation measures for collecting and disposing of run-off the proposal will not have significant impacts. The alternative site is located right next to a drainage pond which make it better at handling runoff, thus requiring slightly less mitigation. The wetland on the proposed site is approximately .95 acres, of low disturbance, and supported by thick forest. To compensate for the destruction of this wetland the Clean Water Act requires that the developer set aside other wetlands for preservation. For this project the new wetland will be in the same watershed and the mitigation ratio is 4:1. The proposed site is a thickly forested area and the project will replace all vegetation on the site with concrete. By law the hotel must have 2% of the area landscaped but this is not nearly enough to fully mitigate the effects on vegetation. On the alternative site the only affected vegetation would be grass. The proposed action will have an impact on wildlife, however no endangered species were found on the site. The alternative site currently supports less wildlife.

Chapter three deals with the effects on the built environment. During the construction phase there will be some noise created by the project. The operation of the hotel will not produce significant noise. The airport will serve to drown out what noise effects there are. Hundreds of people living in close proximity will put additional stress on emergency services, including addition demand for the fire department, police department, and paramedics, however the developer is required to pay fees for these services. The project is expected to increase local traffic. There are some aesthetic impacts of the proposal as some forest is cleared and the hotel will be visible from the highway. The hotel will have some effect on the Bellingham utilities, the water demanded and the use of the sewer system will increase. This effects will be minimized by Bellingham's large water right and by the developer paying for a new connections.

Figure 2. Proposed Site Layout from Preliminary Design



- Executive summary: A brief statement (no longer than two pages) of
  - The proposal's **objectives**, specifying the **purpose and need** to which the proposal is responding;
  - A summary of the **proposal and alternatives**;
  - A summary of **impacts, mitigation measures, and significant adverse impacts that cannot be mitigated**.
  - Significant areas of **controversy and uncertainty**, if any.

(Modified from WAC 197-11-440 (4).)

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## **GLOSSARY OF TECHNICAL TERMS, ACRONYMS, AND ABBREVIATIONS**

BLI Bellingham International Airport

BMP Best Management Plans

CH<sub>4</sub> Methane

CO<sub>2</sub> Carbon Dioxide

DAHP Department of Archaeology and Historical Preservation

DOE Department of Ecology

EPA Environmental Protection Agency

HFCs Hydrofluorocarbons

HSG Hotel Services Group, LLC

ITE International Traffic Engineers

LEED Leadership in Energy and Environmental Design

NAAQS National Ambient Air Quality Standards

NO<sub>2</sub>- Nitrous Oxide

NWCCA- Northwest Clean Air Agency

PFCs Per fluorocarbons

TESC Temporary Erosion Sedimentation Control

# **CHAPTER 1. ALTERNATIVES, INCLUDING THE PROPOSED ACTION**

## **1.1 INTRODUCTION**

This Environmental Impact Assessment (EIA) involves the environmental impacts of the proposed action, an alternative action and a no action alternative for the proposed construction of a hotel at the Bellingham International Airport (BLI). Chapter 2 will describe the proposed and alternative actions in depth as well as describe their environmental impacts.

The proposed action is the construction of a hotel implemented by the Hotel Services Group, LLC (HSG), which plans to construct a Holiday Inn Brand hotel at a 3.77 acre site, as demonstrated as the Proposed Site in figure #.

The alternative action is another site location where the hotel could also be constructed, demonstrated as the Alternative Site in figure #. Each action will require different mitigation measures to reduce environmental impacts.

The no action alternative would be not to build a hotel, and each site would remain in its current state. The no action alternative would not meet the proposed action's objectives. The locations of all actions are on currently vacant lands adjacent to the Bellingham International Airport in the city of Bellingham, Washington, just west of Interstate 5 (I-5), south of Slater Road and east of Wynn Road.

## **1.2 PROPOSED ACTION**

### **1.2.1 PROPOSED OBJECTIVES**

The project objective is to develop a hotel within the bounds of the Bellingham International Airport to accommodate and provide convenient lodging for travelers. Other project objectives and public goals are to provide economic development and job creation for the community.

## **1.2.2 PROJECT PROPOSAL**

The proposed site is located just east of the airport terminal, across Mitchell Way, and just south of the Pacific Cataract and Laser Institute. The proposed hotel would be seen by traffic moving southbound on Interstate 5 (I-5), where travelers have the option of taking the convenient next exit, 258 Bakerview Rd/ Bellingham International Airport.

Although the project design is not yet complete, the Hotel Services Group (HSG) application plans would result in the development of a 153 room full-service Holiday Inn Brand Hotel with underground and surface parking (roughly 300 stalls), an indoor pool, a full service restaurant, and 7,000 square feet of conference room space.

The proposed site contains thick wetland forest vegetation and lies on a declining slope. The construction of the proposed hotel would require filling 0.95 acres of wetlands, and off-site mitigation has been completed to reduce impacts. No surface water diversions or withdrawals will be necessary.

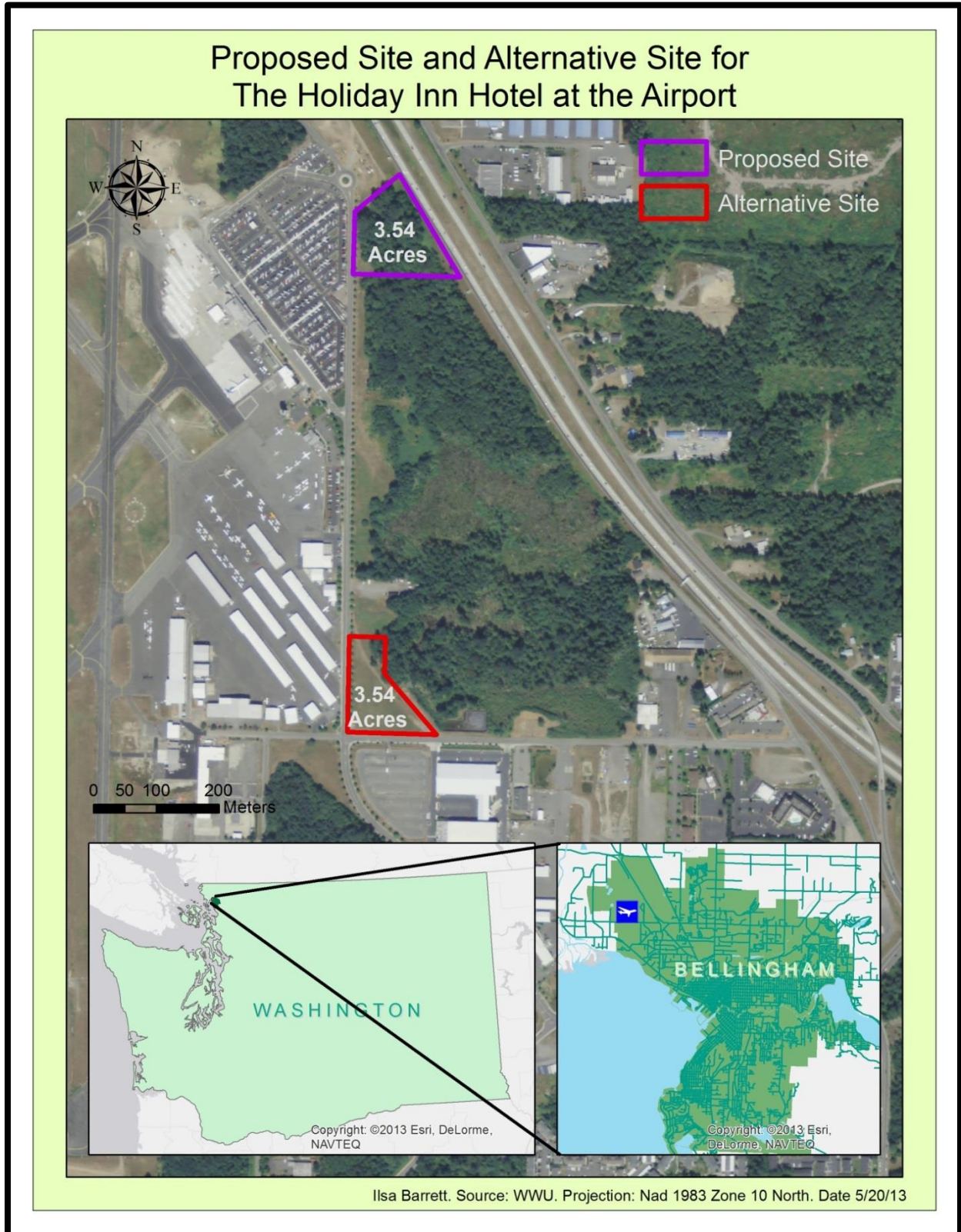
## **1.3 ALTERNATIVE**

The Alternative Action would be for the Hotel Services Group (HSG), to construct a smaller hotel on the alternative site (Exhibit B). The smaller hotel design would create less impervious surfaces and require fewer natural resources during the construction process. There would also be less destruction of vegetation and wetlands at the alternative site, as the alternative site is relatively flat and all of the on-site vegetation is grass. The Alternative Action would leave the vegetation on the proposed site as a natural buffer between Interstate 5 (I-5) and the Bellingham International Airport (BLI).

## **1.4 NO ACTION ALTERNATIVE**

Under the No Action Alternative, a hotel would not be built. Negative impacts on plants and animals would be avoided. The land would remain undeveloped in its natural state as a buffer between Interstate 5 (I-5) and the Bellingham International Airport (BLI).

**Figure 3. Demonstration of both the Proposed and Alternative Site**





## **CHAPTER 2. AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES AND MITIGATIONS**

### **2.1 EARTH**

#### **2.1.1 SOILS**

##### **Existing Conditions**

Two soil series can be found on the proposed site for the Holiday Inn Hotel at the Bellingham International Airport (BLI). These soil types are Urban land-Whatcom Labounty complex (#172) and Whatcom-Labounty silt loams (#182). Areas covered by both soil types have between 0 and 8% slopes, and each type makes up approximately half of the site, split down the middle from the North end to the South end. The drainage of both soils is poor to moderate, with very high water capacities and low frequency of ponding or flooding.

The vegetation in the soils of this area helps to slow runoff and increase organic matter, creating a natural buffer for polluted runoff from the airport and Interstate 5 before it enters the drainage basins, underground water and nearby creeks. The airport is located at a slightly higher elevation than the proposed site, so stormwater runoff flows toward the site.

Erosion of the soils in this area is low due to the existing natural vegetation and moderate drainage. The low level of erosion has allowed the soils in the area to develop naturally, which helps to stabilize the vegetation in the area that creates a natural buffer from the airport.

##### **Proposed Action Impacts**

Approximately 98% of the proposed site will be covered with impervious surfaces. This leads to increased water runoff containing pollutants from the construction site as well as from the airport and surrounding impervious surfaces. More runoff leads to higher soil erosion rates, causing reduced soil development and leading to less vegetation cover. Less vegetation and less developed soils will cause more erosion and a decreased area to buffer the runoff from the airport and the hotel into the drainage basins, groundwater and nearby creeks. Mitigation measures must be put into place to prevent this environmental degradation and maintain what is left of the natural buffers in the area.

Because the proposed site is not level and contains many sloped areas, a significant amount of soil will need to be removed for construction. Considering that both soil types

in this area were rated as poor sources of gravel, road fill, or sand to be used in construction, most of the displaced soils will not be usable on-site and will most likely need to be transported and dumped elsewhere. This could have a significant impact on the soils and ecosystems in the area where dumping occurs. The displacement of soil on the proposed site also has the potential to impact the stability of the surrounding soils and the health of the ecosystems they support.

### **Proposed Action Mitigation Measures**

Proposals to minimize soil erosion include implementation of a Temporary Erosion Sedimentation Control (TESC) plan and Best Management Practices (BMP's) during construction of the project to ensure that potential erosion and sedimentation impacts are adequately addressed. Erosion control BMP's to be implemented include silt fencing, mulch or jute netting, straw bale barriers and check dams, as applicable. Methods proposed for the collection and disposal of stormwater runoff include on-site treatment and detention in underground vaults with flow controls.

Other measures that are currently not required that could help to mitigate the negative environmental impacts of the proposed action include vegetation buffers and reducing the amount of ground area covered with impervious surfaces. Vegetation buffers would help to filter stormwater and control the amount of runoff and erosion. Similarly, if more of the area is covered by permeable surfaces, there will be less runoff, more filtration and less erosion.

If all of these measures are put in place, the negative environmental impacts of the proposed action will be lessened to the point that there will be no significant impacts to pollution runoff and soil erosion. However, if they are not enforced, or if only the required measures are implemented, the soil erosion and stormwater runoff impacts will be significant and will affect not only the land around the airport, but the water quality of the drainage basins and underground water sources as well.

### **Alternative Action Impact**

The alternative action will use an alternative site located just south of the proposed site. This site contains the same Urban land-Whatcom Labounty complex soil (#172) that is found on the first site. However, the only vegetation on the site is grass, so no vegetation or natural buffers will need to be removed. The site is also much drier and completely flat, so construction will require less soil displacement.

There are already detention ponds located near the alternative site that work to catch polluted runoff in order to keep as many of the chemicals and other pollutants out of the drainage basins and other water sources as possible. A detention pond in this area has already been expanded to accommodate for the extra runoff from the hotel project. Therefore, runoff from the hotel at the alternative site is not likely to cause as much

erosion to nearby soils or degradation of the surrounding environment as would be caused by a hotel built at the proposed site.

A TESC plan and BMP's will be used during construction as they would for the proposed action. The other alternative action development plans include using low impact development to lessen the impact of runoff and soil erosion. Low impact development would use permeable cement wherever possible, including parking lots and sidewalks, to improve percolation into the ground and lessen the amount of runoff. Detention ponds would also be utilized and expanded to catch more runoff. The same mitigation measures from the proposed action will still need to be used.

### **No Action Impact**

If no hotel is constructed, there will be no significant impacts to the soil. The existing detention ponds and natural buffers keep the majority of the runoff pollution out of the drainages and water resources of the surrounding area. The soil would continue to develop at its current rate, and the vegetation would continue to provide stabilization functions in that area.

**Figure 4. Proposed Site Soil Map**



Whatcom County Area, Washington (WA673)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
172	Urban land-Whatcom-Labounty complex, 0 to 8 percent slopes	1.6	42.7%
182	Whatcom-Labounty silt loams, 0 to 8 percent slopes	2.1	57.3%
<b>Totals for Area of Interest</b>		<b>3.7</b>	<b>100.0%</b>

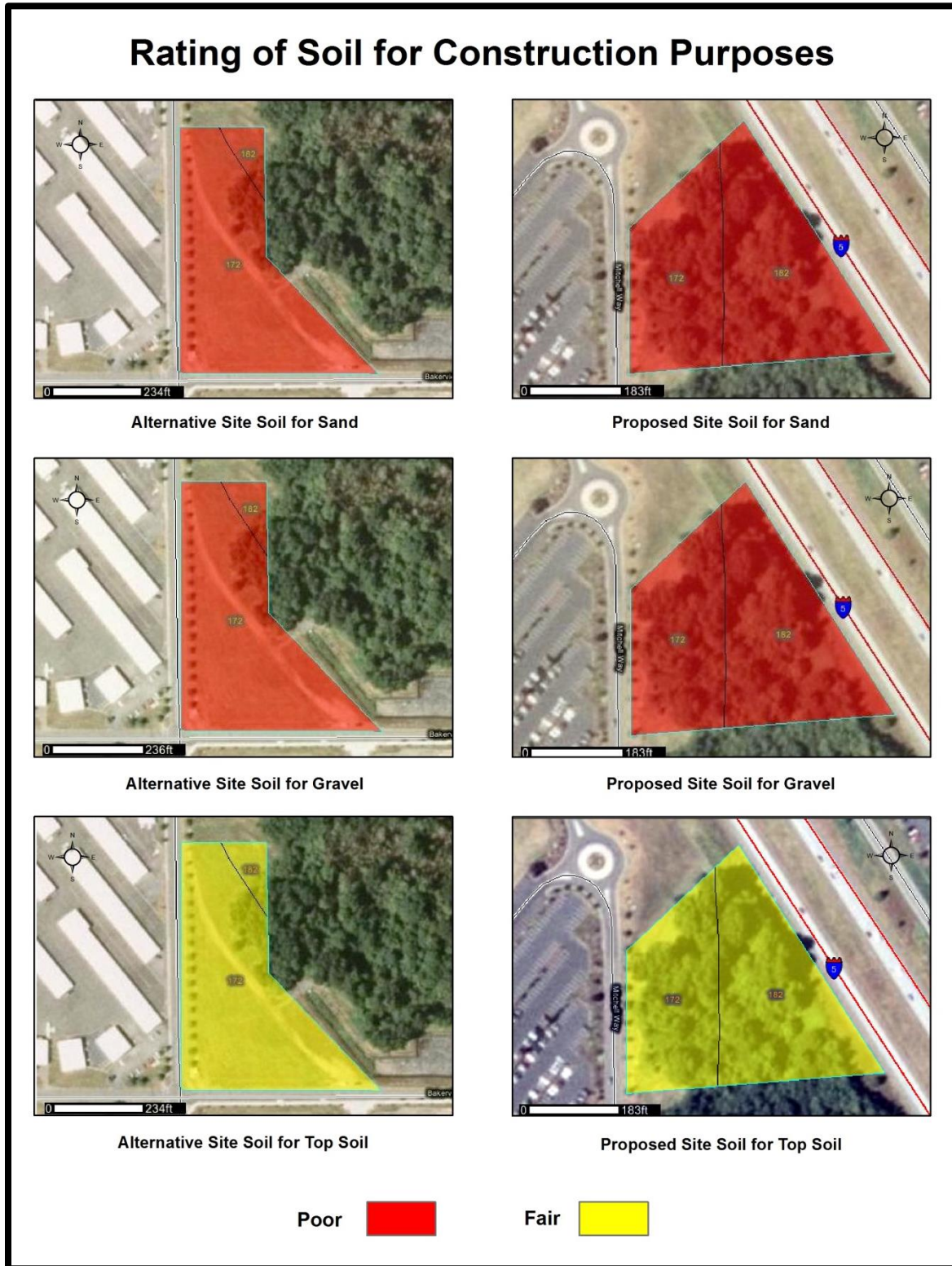
Figure 5. Alternative Site Soil Map



Whatcom County Area, Washington (WA673)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
172	Urban land-Whatcom-Labounty complex, 0 to 8 percent slopes	4.1	93.7%
182	Whatcom-Labounty silt loams, 0 to 8 percent slopes	0.3	6.3%
<b>Totals for Area of Interest</b>		<b>4.4</b>	<b>100.0%</b>



Figure 6. Soil Rating



## 2.2 AIR

### 2.2.1 CLIMATE

#### **Existing Conditions**

Whatcom County has a maritime climate with moderate temperatures that are stabilized by its proximity to the ocean. The mean annual temperature is 48.9°F (9.4°C), with a range of -4°F (20°C) to 97°F (36°C). The coldest months are December and January, but most winters are rainy with minimal snowfall. Average annual precipitation is 34 inches (86.4cm), with a range of 20 inches (50.8cm) to 49 inches (124.5cm) (COB “UGA” 2004).

Climate is an important factor to consider because humans have the ability to impact it by emitting large quantities of greenhouse gases. Greenhouse gases in the atmosphere include water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (NO<sub>2</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride. These are gases that trap radiation and warm the surface of the planet (EIA, 2013). Some amounts of these gases are necessary to make our planet inhabitable, but high atmospheric concentrations will lead to climate change, which is likely to have many detrimental environmental repercussions.

Whatcom County has proposed an Action Plan for Climate Protection to lower greenhouse gas emissions. In 2001, Whatcom County produced a total of 2,750,728 tons of greenhouse gas emissions, and this number is expected to rise to 3,650,660 tons by the year 2020. A goal was set for the Whatcom County community to reduce its emissions by 10% below the 2001 levels by 2020. To reach this target, the community will have to reduce its annual emissions by 1.1 million tons (Whatcom County, 2007).

#### **Proposed Action Impact**

The proposed plan to build a hotel will increase greenhouse gas emissions. The equipment used for the construction of the building will emit carbon dioxide and methane gases from the burning of fossil fuels. Other than the equipment used during construction of the hotel, the concrete used for the hotel building produces greenhouse gas emissions. The cement industry, a component of making concrete, is the third largest producer of carbon dioxide and a great amount of concrete will be necessary. Designs of the hotel have yet to be completed to determine the significance and impact of concrete.

The hotel will also emit greenhouse gases once it is in use because fossil fuels will be burned to provide electricity for the lights, heating and air conditioning, heated pool, and any other processes that require a source of power. According to the Environmental Protection Agency (EPA), emissions associated with staying one night in the average

mid-budget hotel room are approximately 16.8 kg of carbon dioxide (CO<sub>2</sub>) per room. The proposed hotel has 153 rooms, so it has the potential to emit up to 2,570 kg of CO<sub>2</sub> per day.

It is predicted that the hotel will increase road traffic by 45 trips during the peak hours (4-6 pm) in the peak months (during March and summer months). Peak Hour Traffic trip generation estimates are determined by the latest International Traffic Engineers (ITE) Trip Generation Manual. Cars emit greenhouse gases such as carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>). In fact, according to the United States Department of Ecology (DOE), when a gallon of unleaded gasoline is burned, 8.91 kg of CO<sub>2</sub> are emitted. Therefore, an increase in traffic due to the construction of the hotel will further contribute increased atmospheric concentrations of greenhouse gases and climate change.

### **Alternative Action Impact**

Under the alternative action, greenhouse gas emissions would still be emitted from the construction of the hotel and from the hotel itself. However, measures would be taken to reduce them. The alternative action would result in the construction of a smaller hotel, which would cause fewer direct impacts from heating and electricity use in the hotel, as well as generating less additional traffic. This would cause a lower overall amount of greenhouse gas emissions as opposed to the plan described in the proposed action.

### **Mitigation Measures**

The proposed action currently has no required or suggested mitigation measures for reducing the amount of greenhouse gases emitted. In fact, there are no laws or regulations in place that require any measures to be taken to reduce emissions. In 2002, a final action was signed in the Clean Air Act which stated that greenhouse gases constitute a threat to public health and welfare, but there have yet to be any laws requiring reductions in emissions. (EPA, 2009)

There are many mitigation measures that could be used for the proposed action or the alternative action. The Port of Bellingham could reduce carbon emissions by purchasing greenhouse gas offsets corresponding to the amount of development that is occurring. Other options suggested by Whatcom County's Climate Protection and Energy Conservation Action Plan include making the building certified in Leadership in Energy and Environmental Design (LEED) and taking part in the Energy Efficiency Challenge. These energy efficiency efforts have the potential to significantly reduce the amount of greenhouse gas emissions caused by daily operations of the hotel.

### **No Action Impact**

Under the no action alternative, there would be no significant increase in greenhouse gas emissions from the construction of a new hotel and parking lot because the



conditions would not change. No fossil fuels would be burned on-site and no extra traffic would be generated.

## **2.2.2 AIR QUALITY**

### **Existing Conditions**

The proposed site is located within the Fraser Valley airshed (COB “UGA” 2004). Federal, state, and local air pollution regulations in Whatcom County are enforced by the Northwest Clean Air Agency (NWCCA). According to NWCCA, Bellingham and the surrounding areas are all in compliance with the National Ambient Air Quality Standards (NAAQS), as well as with the Washington State Standards (NWCAA, 2010).

The NAAQS exist for six criteria pollutants that are regulated by the EPA. These include carbon monoxide, nitrogen dioxide, particulate matter, PM2.5, ozone, and sulfur oxides. (NWCAA, 2010). Currently, the particulate matter measures read 2.3ug/m<sup>3</sup> and the ozone measures are at 0.03 ppm (WA DOE, 2010). These measurements, as well as the measurements for the other critical pollutants, are currently all within acceptable limits of the NAAQS and the Washington State Standards (see Table 1).

### **Proposed Action Impact**

Dust and exhaust will be produced as a result of the construction. However, this is an insignificant impact because, as stated in the environmental checklist, standard equipment will be used and reasonable precautions taken to reduce these impacts (Environmental Checklist, 2009). Once the hotel is in use, transportation in the area will increase, leading to an increase in air pollutants emitted from the vehicle exhaust.

### **Alternative Action Impact**

Under the alternative action, there will still be dust and exhaust as a result of the construction and growth in airport traffic. However, due to the smaller size of the hotel, less additional traffic would be generated, so fewer air pollutants will be emitted from vehicle exhaust. Overall air quality impacts will be relatively insignificant.

**Table 1. National and State Ambient Air Quality Standards**

POLLUTANT	NATIONAL PRIMARY STANDARDS	NATIONAL SECONDARY STANDARDS	WASHINGTON STATE STANDARDS
<b>Carbon Monoxide</b>			
8 Hour	9 ppm	9 ppm	9 ppm
1 Hour	35 ppm	35 ppm	
<b>Lead</b>			
Quarterly Average	1.5 µg/m <sup>3</sup>	1.5 µg/m <sup>3</sup>	1.5 µg/m <sup>3</sup>
<b>Nitrogen Dioxide</b>			
Annual Mean	.053 ppm	.053 ppm	.050 ppm
<b>Ozone</b>			
8 Hours	.075 ppm	.075 ppm	.08 ppm
1 Hour	.12 ppm	.12 ppm	.12 ppm
<b>Particulate Matter 2.5</b>			
Annual Average	15 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
24 Hour	65 µg/m <sup>3</sup>	65 µg/m <sup>3</sup>	65 µg/m <sup>3</sup>
<b>Particulate Matter 10</b>			
Annual Average	50 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>
24 Hour	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
<b>Sulfur Dioxide</b>			
Annual Average	.03 ppm	None	.02 ppm
24 Hour 1	.14 ppm	None	.10 ppm
3 Hour 1	None	.5 ppm	.40 ppm
1 Hour	None	None	.80 ppm
5 Minute	None	None	

National Ambient Air Quality Standards were set by the Environmental Protection Agency for six principal or 'criteria' pollutants listed below. The units of measure are parts per million (ppm) for volume and micrograms per cubic meter of air (µg/m<sup>3</sup>).

**Mitigation Measures**

There are currently no required mitigation measures to reduce air pollution, other than that the building must meet the requirements for the NAAQS. Measures that could be taken to reduce impacts include adding a nearby bus stop to a public bus route so that public transportation to downtown Bellingham is more accessible, thereby reducing vehicle traffic. The hotel could also supply a free public shuttle to downtown Bellingham to encourage customers not to drive their individual cars.

**No Action Impact**

Under the no action alternative, there will be no impacts from the construction of a hotel. There will still be exhaust emissions from the cars on Interstate 5, as well as from the airport, but no additional traffic will be generated.

## **2.3 WATER**

### **2.3.1 SURFACE WATER MOVEMENT/STORMWATER RUNOFF**

#### **Existing Conditions**

The proposed site is located within the Silver Creek Watershed, which drains into Silver Creek to the northeast of the site. Silver Creek is a tributary of the Nooksack River, and it drains an area of approximately 9.4 square miles. Both Silver Creek and its tributary, Bear Creek, are listed on the Department of Ecology's 303(d) list as impaired for dissolved oxygen and fecal coliform (City of Bellingham).

The proposed site is located on the divide between two sub-basins of the Silver Creek Watershed: the Terminal Basin and the Bakerview Basin (David Evans & Associates, 1998). A portion of the stormwater runoff from the Bellingham International Airport in these basins is currently detained in the Southwest Detention Facility, located near the alternative site. Pipe systems and ditches are used to channel runoff into the detention facility.

The Terminal Basin includes airport buildings, runways, and parking lots, and runoff from these impervious surfaces is currently channelled through an underground stormwater pipe system. This stormwater is then discharged into a forested wetland on the east side of the basin. This wetland drains into Bear Creek, a small tributary of Silver Creek, via a 24-inch culvert which passes under Interstate 5.

The Bakerview Basin is currently made up of undeveloped forest lands, with no existing stormwater infrastructure. Runoff from this basin similarly drains into a tributary of Silver Creek through two 12-inch culverts which pass under Interstate 5.

#### **Proposed Action Impact**

The proposed action will be built directly on the forested wetland site where stormwater runoff from the airport is currently discharged. The existing underground stormwater pipe system will need to be expanded so that it discharges water further downstream of the proposed site.

After project construction, approximately 98% of the proposed site will be covered in impervious surfaces, significantly increasing the amount of stormwater runoff from the area. This increase in discharge has the potential to increase peak flows in Silver Creek, potentially affecting downstream salmon populations.

#### **Proposed Action Mitigation Measures**

The proposal includes measures for collecting and disposing of stormwater runoff. Underground vaults with flow controls are being proposed on the hotel site to provide

onsite treatment and detention of stormwater. Stormwater runoff must meet water quality standards.

Proposed measures to reduce or control surface, ground, and runoff water impacts follow the approved Airport-wide Stormwater Management Plan and Wetland Mitigation Plans. The Airport-wide Stormwater Management Plan requires detention control ponds that meet standards. The detention pond that will be used for stormwater runoff from the hotel is located just southeast of the airport building and has already been expanded for this project.

After mitigation, there will be no significant environmental impacts on surface water movement and stormwater runoff.

### **Alternative Action Impact**

The alternative site is also located in the Silver Creek Watershed, and it is located on the boundary between the Airport Basin and the Bakerview Basin. Stormwater runoff from the adjacent portion of the Bellingham International Airport is currently directed into a stormwater detention pond located directly behind the alternative site for the hotel (see figure 7).

**Figure 7. Photograph of Existing Stormwater Detention Pond on Alternative Site.**



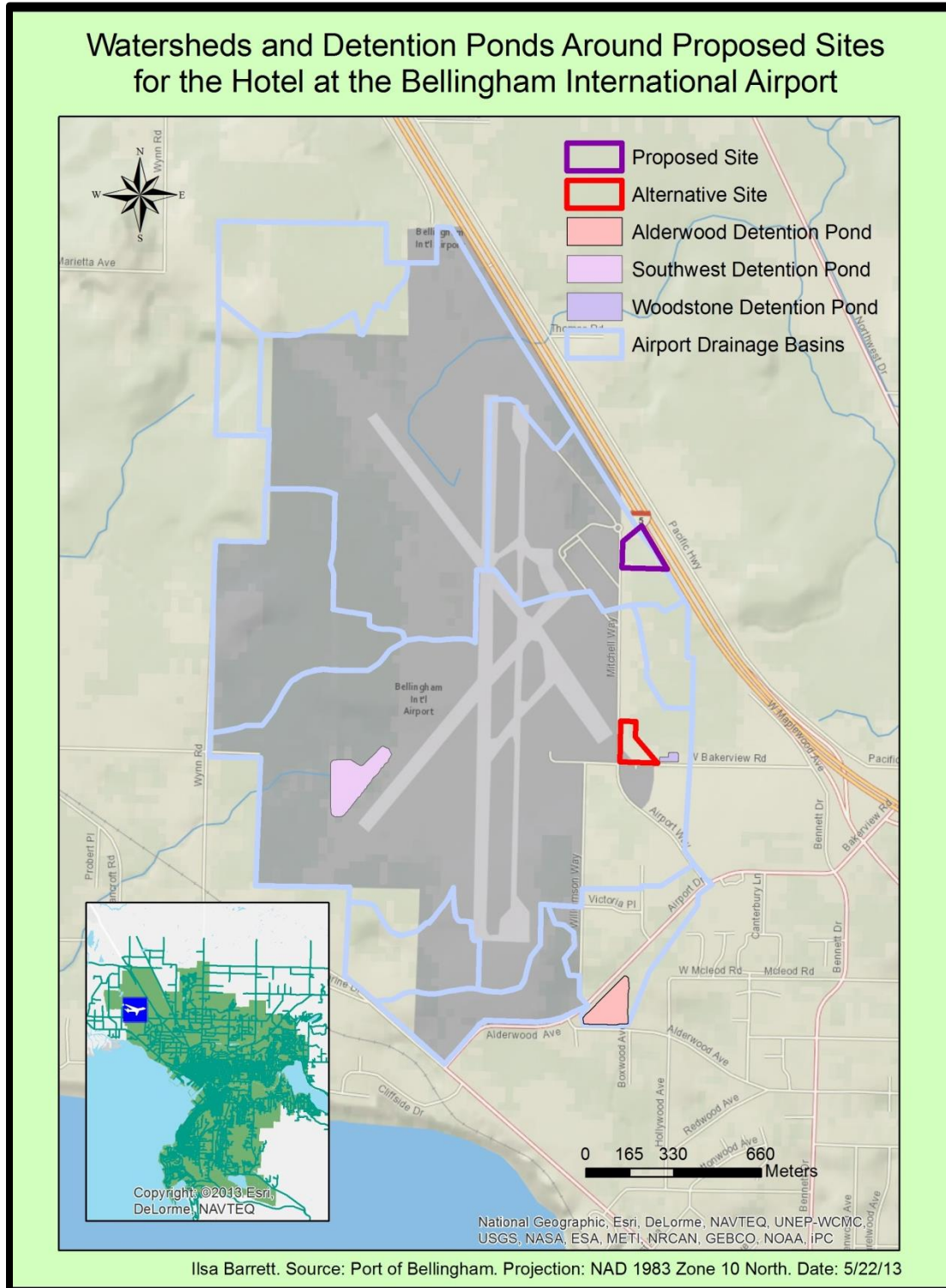
Construction of the hotel at the alternative site will still lead to an increase in impervious surfaces and the related increase in stormwater runoff, but the alternative site is located in an area that is more suitable for dealing with this increase, and where the construction of a hotel will not interfere with existing stormwater control measures.

Stormwater from the alternative site will be channeled to the same stormwater detention pond as would be used for the proposed action, where it can be detained and treated with few additional impacts. Other on-site mitigation measures will be the same as for the proposed action. After mitigation, there will be no significant environmental impacts on surface water movement and stormwater runoff.

### **No Action Alternative**

The No Action Alternative will result in no change of the current existing conditions. There will be no significant increase in stormwater runoff, and stormwater runoff will continue to drain through existing pipes into wetlands and small streams, and eventually into Silver Creek and the Nooksack River.

Figure 8. Watershed and Drainage Basin Map





## 2.3.2 WETLANDS

### Existing Conditions

Wetlands are areas where the land is saturated by water. This water saturation regulates soil development and determines the types of plant and animal communities that will inhabit an area. Wetlands provide important water retention and filtration functions, and generally include swamps, marshes, bogs, and other similar areas (EPA).

The site for the proposed action is located in an undeveloped wooded area with wetlands both on-site and nearby. The on-site wetlands are centrally located within the site and consist of a total area of approximately 0.95 acres. These wetlands drain into an unnamed tributary of Bear Creek, which is part of the Silver Creek Watershed and the Bakerview Basin. The wetlands are of low disturbance and support a thickly forested ecosystem.

**Figure 9. Photograph of Wetlands on the Proposed Site**



### Proposed Action Impact

The Proposed Action will result in the destruction of approximately 0.95 acres of on-site wetlands. The excavation of underground parking areas will remove the majority of on-site wetlands. Structural grade fill may be required if geological tests find that excavation of underground parking does not reach suitable structural material. Removal of the on-site wetlands will result in a complete loss of the water filtration and habitat functions they currently provide.

### **Proposed Action Mitigation Measures**

Compensatory mitigation is required under the Clean Water Act to replace the loss of wetland functions and offset adverse environmental impacts within the watershed (EPA). Off-site mitigation work is required for the proposed action, and has already been completed. These mitigation measures consisted of the creation of new wetlands in an approximate 4 to 1 creation ratio. The mitigation area is located off-site on Washington Department of Fish and Wildlife land near Slater Road, and it is part of the same watershed as the proposed site. These measures are likely to fully mitigate the negative environmental impacts in the watershed as a whole, but there will still be significant environmental impacts in the immediate area due to loss of wetland habitat.

### **Alternative Action Impact**

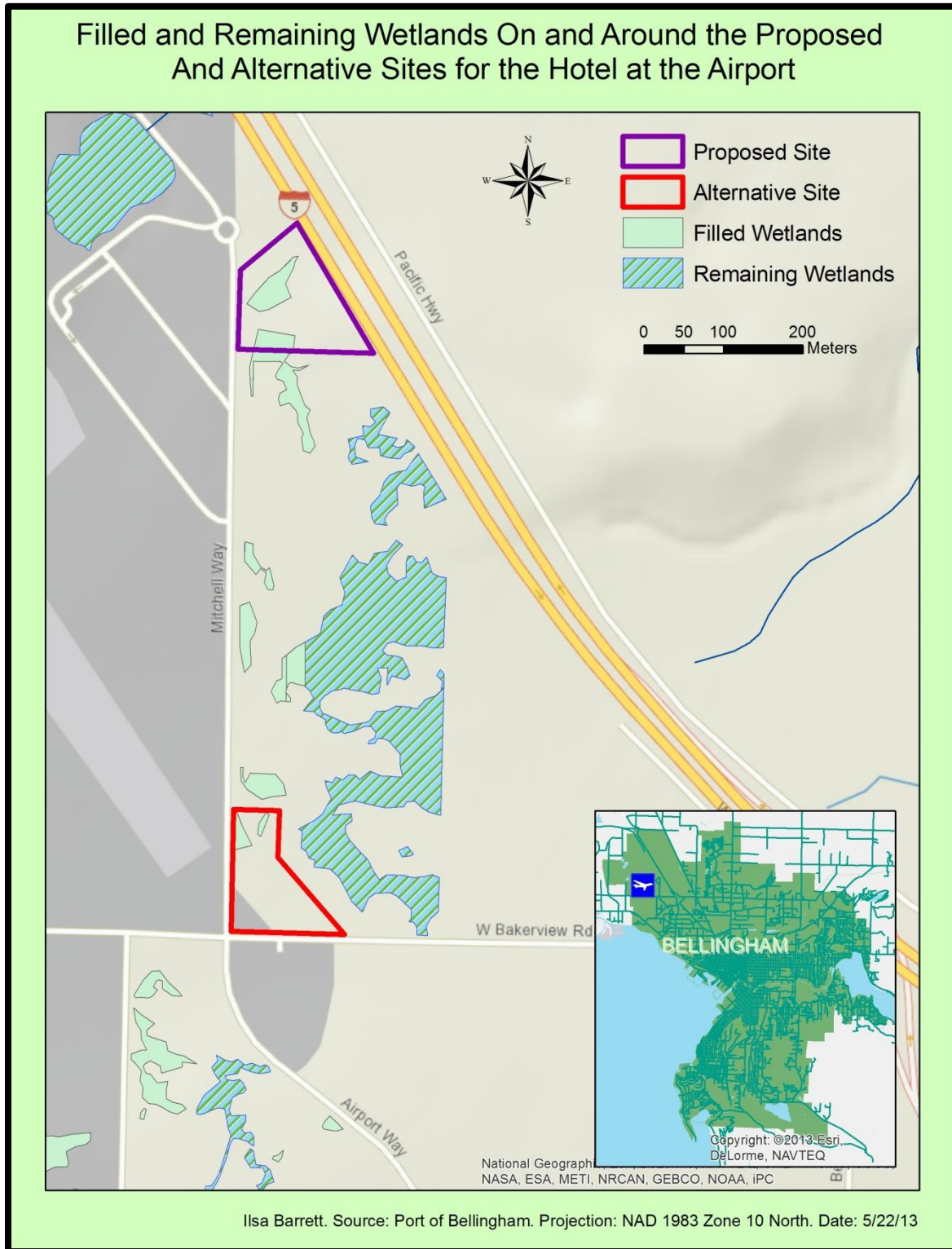
A small amount of wetland also extends onto the alternative site, but it is a smaller area and the impacts of filling it will not be as significant as for the proposed action. Off-site mitigation work is required for the alternative action, and has already been completed. These mitigation measures consisted of the creation of new wetlands in an approximate 4 to 1 creation ratio. The mitigation area is located off-site on Washington Department of Fish and Wildlife land near Slater Road, and is part of the same watershed as the alternative site. Due to the very small size of the on-site wetlands, these measures will fully mitigate the impacts of the alternative action.

### **No Action Impact**

If no action is taken, the previously mentioned wetlands will remain intact and relatively undisturbed. Current wetland functions will be preserved.



**Figure 10. Wetlands Map**



## 2.4 VEGETATION AND WILDLIFE

### 2.4.1 VEGETATION

#### Existing Conditions

The proposed site is located in a thickly forested wetland area. The dominant tree species in the area is red alder, which is well adapted for moist conditions. There is also a thick understory layer of shrubs and some grasses. No threatened or endangered plant species were found on the site.

**Figure 11. Photograph of Forest Vegetation on the Proposed Site**



#### Proposed Action Impact

The Proposed Action will require the removal of all vegetation that is currently on the site. Almost all of the currently vegetated area will be replaced with pavement. This will eliminate all functions that are currently being provided by the trees and other vegetation in the area including habitat provision, sediment filtration, nutrient cycling, and carbon dioxide storage.

#### Proposed Action Mitigation Measures

Approximately two percent of the proposed site must be landscaped, as required by the Planned Unit Development code (PUD). This is not a large enough proportion to preserve any of the current functions of the vegetation, and landscaping is likely to be

done with plants that would not naturally be found in the area. About 98% of the proposed site will be covered in impervious surfaces, which severely limits the amount of potential on-site mitigation. Wetland habitat functions will be mitigated off-site as previously described.

**Alternative Action Impact**

At the alternative site, only grasses would need to be removed to make way for the hotel. There are no trees or shrubs of any kind located on the alternative site. Removing the vegetation from this area would have fewer environmental impacts, as the grasses on the alternative site are not providing as many ecosystem functions as the more complex forest community on the proposed site.

**Figure 12. Photograph of Vegetation on the Alternative Site**



**No Action Impact**

If no action is taken, on-site vegetation will remain relatively undisturbed, as there is not much potential for natural disturbance in the area.

## **2.4.2 WILDLIFE**

### **Existing Conditions**

A variety of wildlife can be found on or near the proposed site, including birds and mammals. These animals depend on forested areas such as the proposed site for habitat and food. No threatened or endangered wildlife species were found on or near the site.

The proposed site is located within the Pacific Flyway, which is an important migration route used by migratory birds passing through the area. Migratory and resident songbirds, waterfowl, and raptors can be found both on and near the site. In addition to birds, a variety of mammals may also inhabit the site. Mammals in the area are likely to include deer, rodents, and squirrels.

The proposed site also contains wetlands, which drain into Silver Creek and then the Nooksack River. Both Silver Creek and the Nooksack River are fish-bearing water bodies. Potential species that may be affected by the proposed action include several species of salmon, trout, and sculpins. Both resident and migratory fish species are found in these water bodies.

### **Proposed Action Impact**

The proposed action will remove all sources of food and habitat currently available on the site. This will displace any wildlife currently inhabiting the area. The proposed action may also have detrimental impacts on downstream fish populations because of increased pollutants in stormwater runoff from the site and potentially increased stream temperatures.

### **Proposed Action Mitigation Measures**

There is no opportunity for on-site mitigation for the proposed action, as almost the entire site will be turned into a hotel and parking lot. The proposed action will not significantly impact most of the wildlife found on the site because most of the species are mobile and can easily move to other nearby areas. Off-site wetland mitigation has been completed, which may provide alternative habitat for some of the wildlife displaced by the proposed action.

### **Alternative Action Impact**

The alternative site does not support as much wildlife because the habitat it contains is not as structurally complex. The grasses on the alternative site may provide a food source for deer or rodents, but do not seem to be very important to wildlife in the area. The alternative action will displace any wildlife that does currently occupy the site, if there is any, but the impact will not be significant.

### **No Action Impact**

If no action is taken, all habitat and food sources in the area will remain intact. The area will continue to support the same wildlife communities as it currently does.

## **CHAPTER 3. ELEMENTS OF THE BUILT ENVIRONMENT**

### **3.1 ENVIRONMENTAL HEALTH**

#### **3.1.1 ENVIRONMENTAL HEALTH HAZARDS**

##### **Existing Conditions**

###### *Hazardous Wastes*

There are currently no known hazardous materials or contaminants on either the proposed or alternative site. A material or substance is considered hazardous if it exhibits any of the following characteristics: ignitability, reactivity, toxicity, or corrosivity. Hazardous substances are commonly found in residential, commercial, and industrial areas, and can be found in items such as cleaning products, paint thinners, drain cleaners, pesticides, and fertilizers.

“Hazardous Substances” are referred to and listed in the Resource Conservation and Recovery Act, the Federal Water Pollution Control Act, The Clean Air Act, the Comprehensive Environmental Response Compensation and Liability Act of 1980, and the Hazardous Waste Cleanup-Model Toxics Control Act.

###### *Building Materials*

Currently, there are no hazardous building materials on either the proposed or alternative site.

##### **Proposed Action Impact**

###### *Hazardous Waste*

The hotel designs are still being developed and a completed list of the hazardous wastes that will be produced have not yet been compiled. However, it is very likely that



the hotel will produce a variety hazardous wastes. These wastes may include direct substances such as cleaning and disinfecting products, polishes, pesticides, fertilizers for lawn care, various flammable materials, aerosols and solvents, cooling tower and chilled water chemicals, as well as indirect substances such as batteries, fluorescent lamps, and light bulbs.

The lease between the Hotel Services Group (lessee) and the Port of Bellingham (lessor) establishes an agreement that any hazardous materials on the site will become the sole responsibility of the lessee, who must acquire any emergency services necessary to handle and dispose of the substances properly.

### *Building Materials*

The design of the hotel and its building materials are yet to be completed. It is likely that the hotel will be made up of a substantial amount of concrete masonry unit (CMU) or concrete block. The surface and underground parking lots will also use a considerable amount of concrete. Major components in concrete are cement and other toxic chemical additives, such as chromium. The adverse health effects of these materials on construction workers and other employees is a concern. When concrete is wet, it is highly alkaline and must be handled appropriately.

### **Alternative Action Impact**

The alternative action will have the same adverse effects as the proposed action, but probably to a somewhat lesser extent due to the smaller size of the hotel.

### **Mitigation Measures**

#### *Hazardous Wastes*

Potential mitigation measures include using environmentally friendly products around the hotel to reduce the amount of the hazardous waste, as well as proper disposal in order to prevent chemicals from washing away and entering water bodies. Even with these mitigation measures, there will be a significant environmental health impact because some hazardous materials are not easily avoidable.

#### *Building Material*

One potential mitigation measure the hotel can implement to mitigate the negative impacts from construction material is to use recycled concrete from previous structures that have been demolished elsewhere. Depending on the quality of the other material displaced by construction of the hotel, some other types of material may also be re-used on-site. Poor materials should be disposed of off-site or at a proper disposal facility.

Another way to decrease environmental impacts is to consider other building materials that have fewer negative effects on the health of construction workers and the

environment. The only other way to avoid some of the risk to employees is to use protective equipment during the handling of fresh concrete and to avoid contact with human flesh.

### **No Action Impact**

Under the no action alternative, no hazardous wastes or harmful building materials will be introduced to the site, and the existing conditions will remain unaltered.

## **3.1.2 EMERGENCY SERVICES**

### **Existing Conditions**

Currently, the only emergency services in the area are those already serving the airport. According to the Interlocal Agreement between the Port of Bellingham and the Whatcom County Fire Protection District No. 8, the airport has fire, emergency medical, and crash fire rescue services. Other emergency services include the Whatcom County Sheriff's Department as well as the airport's own crash-rescue team. No additional emergency services are required for hazardous or toxic substances.

The existing conditions have no activity or development at the proposed site or the alternative site. There are already fire hydrants located at each site in case of a fire, so no other emergency services are required at this time.

### **Proposed Action Impact**

The proposed hotel includes a full service restaurant, an indoor pool, and 153 rooms. All of this increases the likelihood of fires and/or various other types of accidents, but this increase will not be large enough to require additional emergency services or significantly impact the emergency services that currently exist.

No additional services will be required for hazardous or toxic substances on the site. The proposed action is also unlikely to create an increase in the number of airplane passengers, and therefore will not affect emergency services related to aviation activity and accidents.

If any situation arises in the future which requires additional emergency services, the Hotel Services Group is fully responsible for paying for and providing its own fire protection and other emergency services.

### **Alternative Action Impact**

Under the alternative action, the hotel would still be built with all the same amenities. The alternative action will have the same insignificant impacts as the proposed action, though they may be even less significant due to the smaller capacity of the hotel. The responsibilities of the Hotel Services Group will remain the same.

### **No Action Impact**

If the project is not implemented, there will be no increase in the number of accidents and additional emergency services will not be required.

## **3.1.3 NOISE**

### **Existing conditions**

The proposed site is located adjacent to the Bellingham International Airport (BLI). Much of the noise currently present in this area is produced by the airport and associated airplane traffic. The site is also located next to the Interstate 5, which also contributes to the total noise. The nearest residential area is located southeast of the site.

### **Proposed Action Impact**

The proposed action will have significant noise impacts during the construction of the hotel, most of which will take place during business hours. The level of noise produced varies depending on the stage of the construction process underway. The construction will be completed within 1 to 1.5 years, and will produce frequent and high levels of noise until completion.

The daily operations of the hotel will have no significant noise impacts on the nearby residential area. It is not likely that the construction of an airport hotel will cause an increase in airplane traffic at the airport. However, the hotel is projected to cause an increase in vehicle traffic in the area, which will cause a slight increase in the amount of noise in the area.

The nearby residential area already has noise pollution from the airport and from Interstate 5, which will drown out what little noise the project does produce. The noise impacts of this action, even during construction, are not significant.



### **Alternative Action**

The proposed action and the alternative action are very similar in scale, so the level and frequency of the noise will not vary significantly between the two plans. The main difference between the two actions is the location; the alternative project is located slightly closer to the residential neighborhoods than the proposed action. However, the noise impacts of the alternative action are still not likely to be significant.

### **No Action**

Under the no action alternative, an airport hotel will not be built. There will be no noise impacts from construction, hotel operations, or increased vehicle traffic. Major sources of noise in the area will continue to be the airport and Interstate 5.

## **3.2 TRANSPORTATION**

### **Existing Conditions**

The main two-way roads leading to the Bellingham International Airport are Airport Drive, Airport Way, Mitchell Way, and Bakerview Road. Each intersection is controlled by stop signs. There is sidewalk and pedestrian infrastructure along Airport Way, but it abruptly ends along Mitchell Way. There are two large parking lots where travelers can park their cars and take a free shuttle to the airport.

Whatcom Transportation Authority (WTA) provides public transportation for Bellingham, Washington. There is currently a bus route that takes travelers to W. Maplewood Avenue, which is south of the airport and Airport Drive (see figure #). This is the nearest stop to the airport and is a twenty-five minute walk to the terminal (approximately 1.3 miles).

### **Proposed Action Impact**

The proposed action is predicted to increase traffic. An increase of hotel traffic is dependent upon the number of rooms. The assumption is that half of the rooms will already be occupied from passengers already traveling to the airport. The other half of the rooms (about 76) have an increased peak hour traffic trips at a rate of 0.60 trips. This totals to an additional 45 peak hour trips during peak months; peak times/months include Spring Break in March and summer vacation in July.

The proposed action will create 300 parking stalls to assist with this additional traffic load- 190 surface stalls and the rest underground.

The increased traffic will likely have an effect on the major roads leading to the airport, specifically Bakerview Road and Interstate-5. These roads are already high-traffic roads and the additional trips during peak hour times will be a considerable addition.

### **Proposed Mitigation Measures**

One measure to reduce increased traffic is working with Bellingham's public transportation and implementing a route that takes travelers to their destination within airport boundaries or have a stop that takes travelers directly to the airport's shuttle.

The proposed action has very close access to the terminal and would only be a few minutes walk, making it an attractive site to build the hotel. The Hotel Services Group is responsible for constructing sidewalks and crossroads for pedestrian traffic. By having the advantage of being so close to the terminal allows for a considerable number of vehicle trips to be offset. Travelers are less likely to rent a car if their hotel is so accessible. The Hotel Services Group would pay impact fees for the additional traffic during peak times, thus, mitigation measures can help offset this.

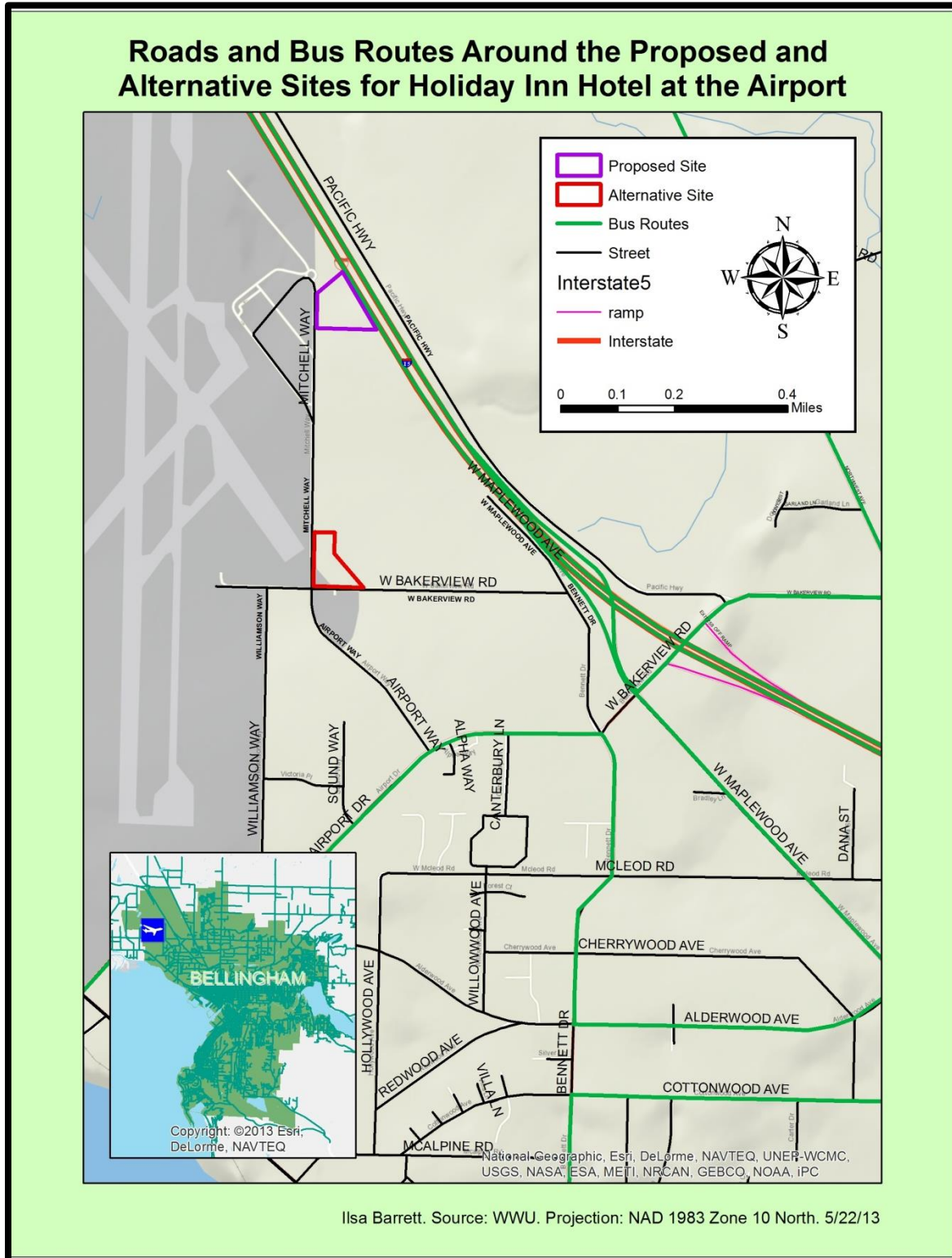
### **Alternative Action Impact**

The alternative action would require the same amount of increased traffic, if not more. The alternative site is further south along Mitchell Way from the proposed site. Although there are sidewalks and pedestrian infrastructure already in place, the accessibility of walking to the terminal whilst carrying luggage is less appealing to travelers. Fortunately, directly across the street, Bakerview Road, there is a parking lot and free shuttle service that travelers could use. This, however, will increase shuttle trips and overall traffic within the airport.

### **No Action Impact**

Under the no action alternative, existing transportation conditions will remain in their current state. There will be no increase in pedestrian or vehicle traffic, and no street development will be necessary.

Figure 13. Bellingham Public Transportation Routes



### **3.3 LAND USE**

#### **Existing Conditions**

The existing land at the proposed 3.77 acre site is considered a natural resource use. It is forested land and within it has a (currently filled) natural wetland (approximately 0.95 acres). See Figures 8 and 10 for a visual aid. Although wetlands are protected by the Clean Water Act which applies to any wetland area found on a site and requires off-site mitigation to be completed if any wetlands were to be filled, it is not however, being preserved. The current zoning is Airport Operations (see Figure 13) under the Growth Management Act.

The alternative site currently provides no use other than providing a detention pond for stormwater runoff. The alternative site is not forested and contains no wetland(s) (see Figure 11). The site is flat and mainly consists of unkempt grass. The site falls into two zones- Airport Operations and Light Industrial (see Figure 13).

There are no structures at either site that would need to be demolished and both have remained vacant and completely undeveloped.

#### **Proposed Action Impact**

The objectives of the proposed action will entail implementing mitigation measures of filling and offsetting the wetland impacts. However, there will be no change of zoning during or prior to the process. Because the proposed action will not require a zoning change, it will have no significant land use impacts.

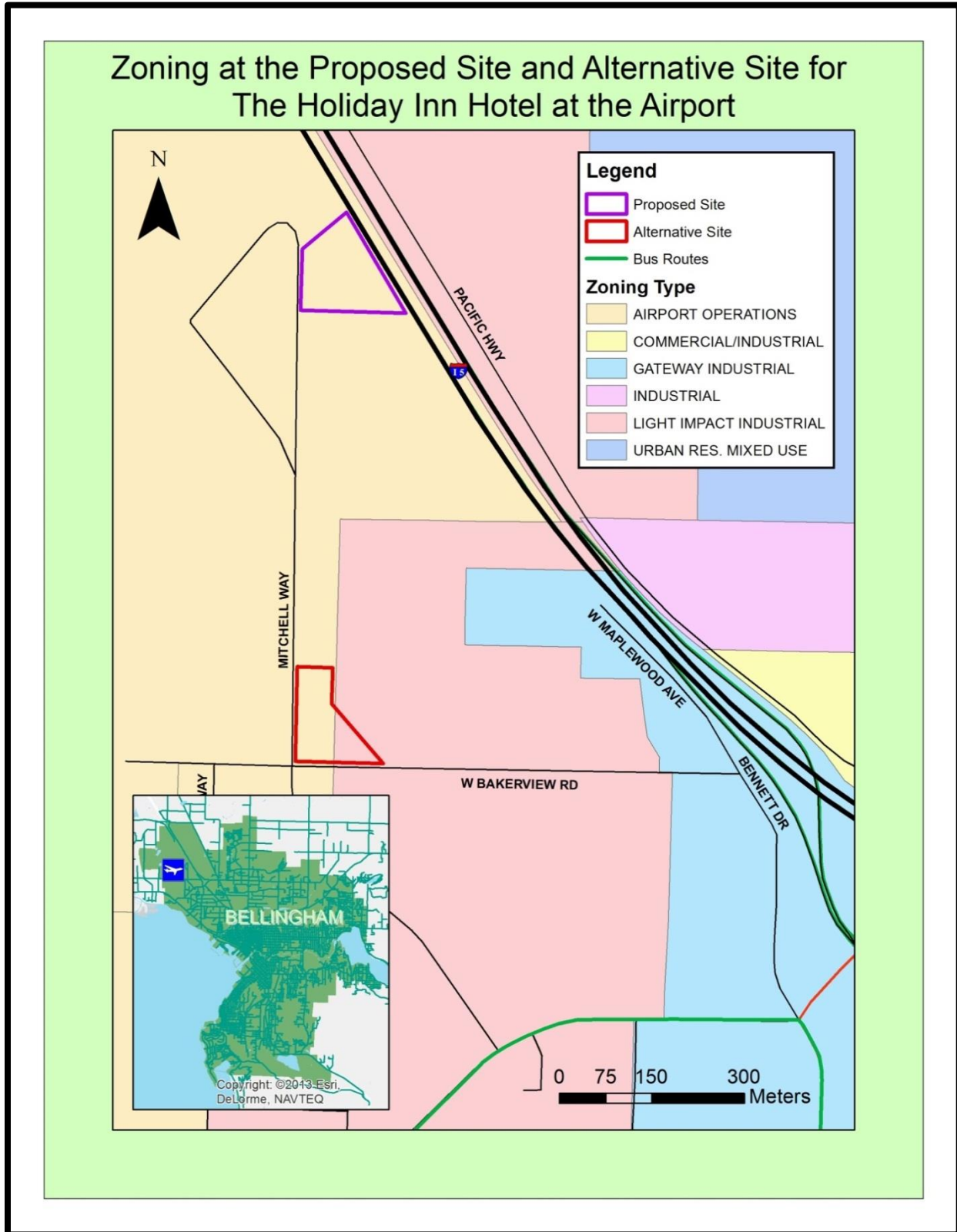
#### **Alternative Action Impact**

The zoning will not be changed for the construction of the hotel, therefore, the alternative action has no significant impacts on land use.

#### **No Action Impact**

Under the no action alternative, the land use and zoning of the sites will remain unchanged.

Figure 14. Current Zoning Map



## **3.4 ENERGY & NATURAL RESOURCES**

### **Existing Conditions**

Currently there are sewage, water, natural gas, and electric utilities available on-site. The proposed site is located within the City of Bellingham's urban service area. Natural resources are provided primarily by the Lake Whatcom watershed. There is vegetation on the proposed site which would be logged and filled with concrete upon construction of the hotel.

### **Proposed Action Impact**

During construction and upon completion of the hotel, use of the available utilities will increase substantially compared to current use. The heavy machinery used for construction will require the use of gasoline and diesel fuels. Removal of vegetation and wetlands will destroy any natural resources currently available on-site. Natural resources that will be used during the construction of the hotel include wood, concrete, and steel.

Energy is one of the largest costs associated with hotel operations, and the average hotel in the United States spends about \$2196 per room on energy each year (Energy Star). Because the proposed hotel will be large and full-service, its energy use will be even higher.

### **Proposed Action Mitigation Measures**

Mitigation measures for the proposed action include off-site wetland enhancement, on-site landscaping, and reduction of vehicle traffic. The building should also be designed to qualify for Leadership in Energy and Environmental Design (LEED) certification in order to minimize the consumption of energy resources for daily hotel operations. Even with these mitigation measures, there will be significant energy and natural resource impacts from the proposed action.

### **Alternative Action Impact**

The alternative action is the construction of a smaller hotel on the alternative site. The building should be LEED certified and the same mitigation measures should be implemented as are suggested for the proposed action. The alternative action will also produce a smaller hotel with fewer rooms, requiring less natural resources during the construction process as well as less energy resources for daily hotel operations. The impacts of the alternative action will be less than those of the proposed action, but are still likely to be significant.

### **No Action Impact**

Under the no action alternative, no energy or natural resources will be used because no hotel will be built and the sites will remain undeveloped.

## **3.5 HOUSING**

### **Existing Conditions**

There are no existing housing units on either the proposed site or the alternative site.

### **Proposed Action**

The proposed action will not result in the construction of any new housing, nor will it displace any current residents.

### **Alternative Action**

The alternative action will not result in the construction of any new housing, nor will it displace any current residents.

### **No Action**

Under the no action alternative, the sites will remain relatively undisturbed. There will continue to be no housing units located on the site.



## 3.6 RECREATION

### **Existing Conditions**

There are currently no recreational activities that take place on the proposed site. There is a scenic Coat Millennium Trail that passes through the southwest end of the adjacent Bellingham International Airport (BLI) property (Bellingham Parks & Recreation, 2011).

### **Proposed Action Impact**

Because there are currently no recreational uses for the area, the construction of a hotel on the proposed site will not significantly impact recreation.

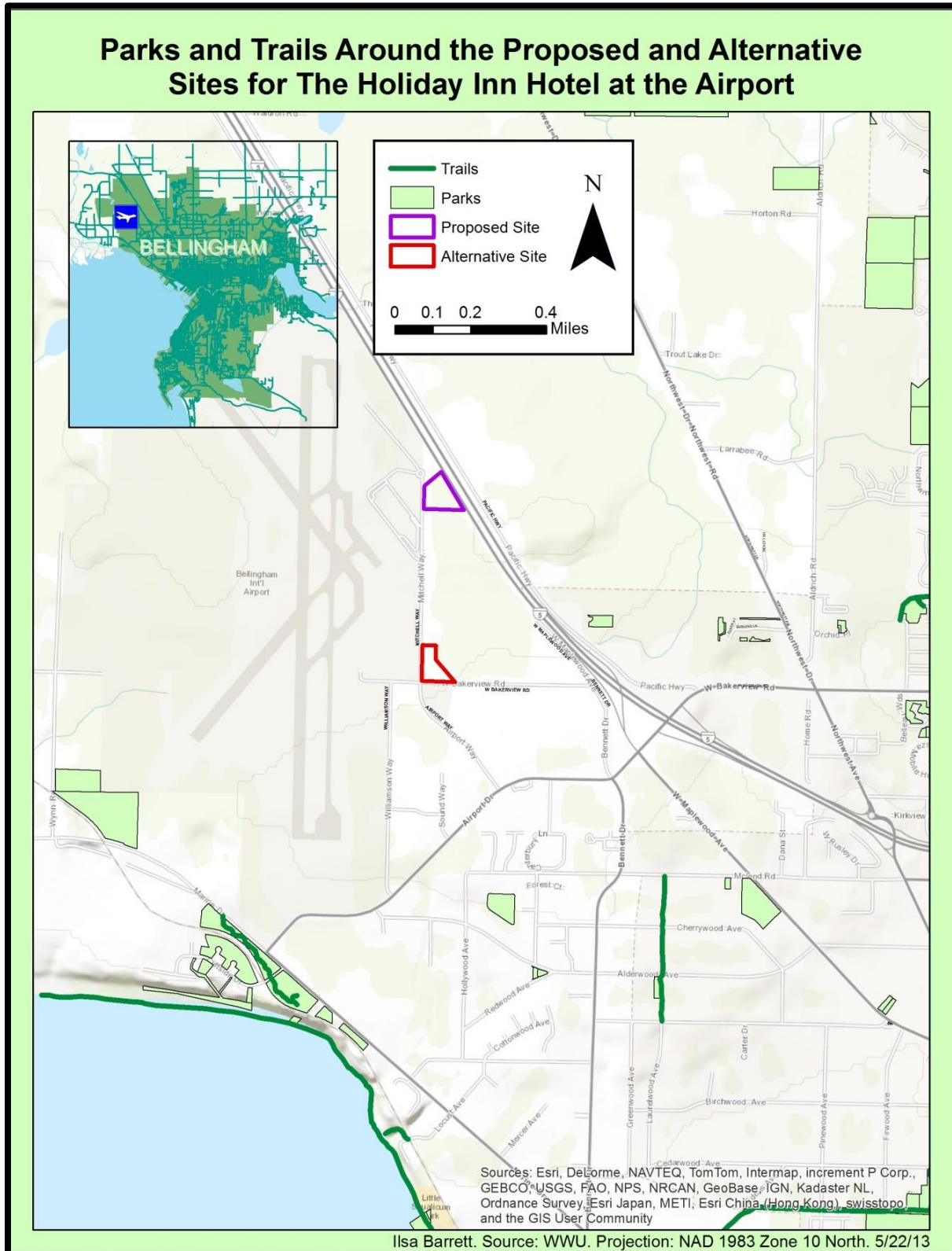
### **Alternative Action Impact**

The alternative action will have no impact on recreational opportunities in the area. The smaller size of the hotel in the alternative action would allow Hotel Services Group to construct a public park on part of the site to provide new recreational services. The park could include picnic tables, barbecue pits, playground equipment, and walking trails. This will have a net positive impact on recreation in the area.

### **No Action Impact**

Under the no action alternative, existing recreation conditions will remain unaltered. There will continue to be no recreational activities in the immediate area.

Figure 15. Recreational Areas Nearby Site Perimeters

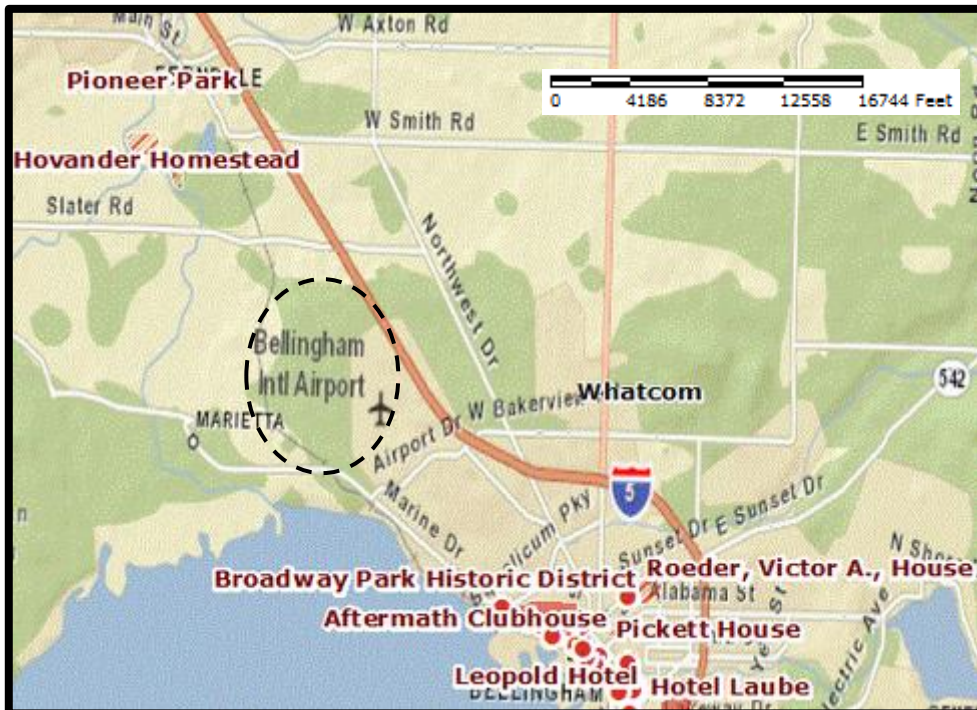


### 3.7 HISTORICAL & CULTURAL PRESERVATION

#### Existing Conditions

The Department of Archaeology and Historic Preservation (DAHP) has not found any historical architectural or archaeological places or objects thus far within the property of the Bellingham International Airport (see figure #). No further studies have been released, either publicly or privately funded, determining any historical or cultural significance at or near the Bellingham International Airport.

**Figure 16. Registered Architectural and Archaeological Sites in Bellingham, WA**



(Washington Information System for Architectural and Archaeological Records Data)

#### Proposed Action Impact

Since there has been no documented historical or cultural significance at the Bellingham International Airport, or even within close proximities, the proposed action will have no impact.

#### Alternative Action Impact

The alternative action would have no impact on cultural or historical objects and places.

### **No Action Impact**

The existing conditions would remain unaltered.

## **3.8 PUBLIC SERVICES**

### **Existing Conditions**

Currently, the only public services in the area are the emergency services already serving the airport. Other public services, such as recreation services and school transportation, are not necessary for the Bellingham International Airport or its surrounding zones.

### **Proposed Action Impact**

The proposed action will not require an increase in public services. If any occasion were to increase the need for public services, then the Hotel Services Group would be solely responsible for obtaining and paying all fees and dues for these additional services.

### **Alternative Action Impact**

The alternative action will be have the same public service impacts as the proposed action. There will be no need for additional public services.

### **No Action Impact**

Under the no action alternative, the existing public services would remain unaltered.

## **3.9 AESTHETICS**

### **Existing Conditions**

There currently are no buildings located on the proposed site. The site currently contains some green vegetation, as well as small wetlands (McFearin, 2013). The site acts as a visual buffer between Interstate 5 (I-5) and the Bellingham International Airport (BLI), blocking the view of the airport from the freeway and reducing its aesthetic impacts.

### **Proposed Action Impact**

Destruction and paving over of the vegetation and wetlands located on the proposed site will come at a cost to the natural buffer between I-5 and BLI. The height of the proposed building is unknown, but its construction will have a significant aesthetic impact on the current landscape and skyline

### **Alternative Action Impact**

There will be minimal clearing of vegetation and alteration of the landscape on the alternative site, and it is out of site of most traffic in the area. The construction of a smaller hotel will also have a smaller visual impact compared to the impacts of the proposed action. Additionally, if the extra land on the alternative site is used to create a public park, there will be a positive aesthetic impact on the area.

### **No Action Impact**

Under the no action alternative, the aesthetic conditions and the appearance of the natural vegetation will remain the same. The visual buffer between BLI and I-5 will continue to exist.

## **3.10 LIGHT & GLARE**

### **Existing Conditions**

There are currently no structures located on the proposed site. The site is located between the Bellingham International Airport (BLI) and Interstate 5 (I-5). BLI has an array of lighting intensity levels which are required for airport operations and light-industrial uses. I-5 is the main highway corridor on the west coast between Vancouver, B.C. and California. The amount of traffic varies throughout the day, varying the intensity of light and glare on the site.

### **Proposed Action Impact**

The proposed action will create light and glare impacts, both on humans and on wildlife. The construction of the hotel will remove the vegetation buffer that is currently located between BLI and I-5, and glare from the sun may inhibit the view of drivers on I-5. The light and glare from the proposed action is also likely to have a negative impact on birds, as they may be blinded by glare reflecting off the windows of the hotel or confused by reflections. The hotel parking lot will also be lit at night, producing light pollution which will negatively impact nearby nocturnal wildlife. The exact magnitudes of these impacts are not known as the final building blueprints have not yet been completed and the exact building materials are not yet known.

### **Proposed Action Mitigation Measures**

The glare caused by sunlight reflecting off of the hotel windows can be reduced by using glare and reflection reducing window tinting films. This would mitigate the glare impacts on both drivers and birds to some extent. Impacts caused by the lighting of the hotel parking lot at night can be partially mitigated by using shielded lights that do not allow excess light to scatter into the surrounding areas. These measures would reduce the negative light and glare impacts of the proposed action, but it is likely that they will still be significant.

### **Alternative Action Impact**

The alternative site is not visible from I-5, so there will be no significant impacts on drivers, reducing the overall negative impact of the alternative action. Light and glare from the alternative action will have the same negative effects on birds and other wildlife as discussed for the proposed action, and the same mitigation measures should be implemented to reduce these impacts. These measures will reduce the negative light and glare impacts of the alternative action, but it is likely that they will still be significant.

### **No Action Impact**

Under the no action alternative, no new sources of light and glare will be introduced to the area.

## **3.11 UTILITIES**

### **Existing Conditions**

The proposed site is located within the City of Bellingham's service area and there are currently sewage, water, natural gas, and electric utilities available on-site. The project developer must cover the costs of connecting to these utilities.

### **Proposed Action**

The proposed action will increase the demand for water in the area. The hotel will have 153 rooms, most of which will be filled with people from out of town, so there will be increased stress on Bellingham's water supply. However, these impacts are not likely to be significant Bellingham has a large water right and is not currently facing any serious water scarcity.

The proposed action will also put additional strain on the sewer system. Although the developer is responsible for the costs of connecting to the sewer system, the additional demand may impact utilities by contributing to the need to increase capacity.

During construction and upon completion of the hotel, use of natural gas and electric utilities will also increase substantially compared to current use, contributing to energy demand as well as greenhouse gas emissions.

### **Proposed Action Mitigation Measures**

According to the current plans for the proposed action, the developer will not be paying impact fees to offset the impacts to utilities. Impact fees could be used for water projects, such as treatment plants or reservoir expansion, thus compensating for the impacts on utilities.

The hotel should also implement conservation measures to reduce the amount of water and energy utilities consumed. Measures to reduce water use should include low flow shower heads and dual flush toilets, as well as rainwater capture for use in landscaping. Measures to reduce energy consumption were previously discussed (see page #). Even if these mitigation measures are implemented, there will be a significant impact on utilities.

### **Alternative Action**

The alternative action will have similar impacts on utilities, but will cause less of an increase in demand due to the smaller size of the hotel and the lower number of occupants. The same impact fees and conservation measures should be implemented for the alternative action as were previously discussed for the proposed action. However, even with these measures, there will be a significant impact on utilities.

### **No Action**

Under the no action alternative, there will be no development of the area, and therefore no significant impact on utilities.



### 3.12 DECISION MATRIX

<b>Table 2. Decision Matrix</b>			
<b>No Impact: 0 Negative Impact: - Positive Impact: +</b>	<b>Proposed Action</b>	<b>Alternative Action</b>	<b>No Action</b>
<b>Natural Environment</b>			
<b>Earth</b>			
Soils	-	-	0
<b>Air</b>			
Climate	-	-	0
Air Quality	-	-	0
<b>Water</b>			
Surface Water Movement/ Storm Water runoff	-	0	0
Wetlands	-	-	0
<b>Vegetation &amp; Wildlife</b>			
Vegetation	-	0	0
Wildlife	-	-	0
<b>Built Environment</b>			
<b>Environmental Health</b>			
Environmental Health Hazards	-	-	0
Emergency Services	-	-	0
Noise	-	-	0
Transportation	-	-	0
Land Use	0	0	0
Environment & Natural Resources	-	-	0
Housing	0	0	0
Recreation	0	0	0
Historical & Cultural Preservation	0	0	0
Public Services	0	0	0
Aesthetics	-	0	0
Light & Glare	-	-	0
Utilities	-	-	0

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