Fall 2010

Cornwall Avenue revitalization: south anchor site

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Cornwall Avenue Revitalization

South Anchor Site

ESTU 436: Environmental Impact Assessment
Huxley College of the Environment
Western Washington University

Greg Jilek
Jesse Jones
Kathlyn Kinney
Matt Kurle
Haylie Miller

Fall 2010

Under Supervision of Troy D. Abel
This presentation represents a class project that was carried out by students of Western Washington University, Huxley College of the Environment. It has not been undertaken at the request of any persons representing local governments or private individuals, nor does it necessarily represent the opinion or position of individuals from government or the private sector.
Environmental Impact Assessment
Huxley College of the Environment

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Signature
Gregory Jilek

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Jesse Jones

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Kathlyn Kinney

Signature
Matthew Kurle

Signature
Haylie Miller

Signature
Troy Abel

Date 11/29/2010
Dear Interested Party:

Enclosed you will find the environmental impact assessment for the Cornwall Avenue South Anchor Retail Revitalization project. This assessment encompasses the portion of Cornwall Avenue between Holly and Maple Streets. Proposed for this area is a new major retail structure, a 260-car parking garage, residences and offices added onto existing structures. This project is part of a greater proposal for the entire stretch of Cornwall Avenue between York and Maple streets, designed to draw quality business to the core commercial area through the placement of anchor retail and additional parking spaces. Development is to proceed in keeping with new urbanist principles, reducing vehicular traffic, encouraging mixed use, and enhancing the historical value of the downtown district.

This document employs the Washington State Environmental Policy Act (SEPA) review process. Through completion of the SEPA checklist, the assessors have arrived at a Determination of Non-Significance for the proposed project. This concludes that the elements of the proposal will impose no probable significant negative impact on the human or natural environment. However, an alternative proposal that involves certain mitigation measures has been included for consideration.

Regards,

Greg Jilek, Jesse Jones, Kathlyn Kinney, Matt Kurle, Haylie Miller
Fact Sheet

Title:
Cornwall Avenue Revitalization: South Anchor Site

Project Description:
This project proposes a revitalization of the downtown area of Bellingham, WA, in an attempt to reestablish the city center’s primacy as a commercial center. This EIA focuses on the southern section of the entire proposal.

New development proposed for this project includes a four-story mixed use department store on the corner of Chestnut Street and Cornwall Avenue as well as a 260-space, four-story, above-ground parking structure on the corner of Cornwall Avenue and East Maple Street. Mixed-use infill is also proposed for existing structures on Cornwall Avenue.

Addressing transportation issues, the project proposes that certain one-way streets be converted to two-way streets in the downtown area, a bike-share program be implemented, the trail system be further interconnected, and a trolleybus incorporated into the mass transit system.

Location of the Project Site:
The area bordered by Commercial Street, Railroad Avenue, Maple Street and Holly Street
Bellingham, WA 98225

Parking Structure: Corner of Cornwall Avenue and Commercial Street
Bellingham, WA 98225
South Anchor Store: Corner of Cornwall Avenue and Maple Street
Bellingham, WA 98225

Lead Agency: Western Washington University
Responsible Official:
Environmental Studies 436 students, Fall 2010

Authors:
Jesse Jones: Earth, Air, and Water.
Kathlyn Kinney: Environmental Health, Land and Shoreline Use, Public Services and Utilities.
Matt Kurle: Plants, Animals, Energy and Natural Resources.
Haylie Miller: Traffic and Parking.

Date of Issue:
Wednesday, December 8, 2010

Public Presentation Date, Place, and Time:
Wednesday, December 1, 2010
Bellingham City Hall, 210 Lottie Street
5:30-7:30 pm

Acknowledgements:

Troy Abel, Assistant Professor, Western Washington University
Chris Comeau, Transportation Planner, City of Bellingham
Joshua Fleischmann, Planner II, Whatcom County Planning and Development Services
Darby Galligan, Development Specialist, City of Bellingham
Jason Porter, Utility Engineer, City of Bellingham Public Works

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Western Washington University
Bellingham, WA 98225
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1.0 Executive Summary

Changes in the downtown area due to the opening of Bellis Fair Mall in the late 1980s have left Cornwall Avenue in a largely depressed, semi-vacated state. The project revitalizes economic activity along Cornwall Avenue by creating an urban, downtown retail corridor.

This environmental impact assessment (EIA) analyzes a range of alternatives and management actions for the proposed retail, office, and residential revitalization of Cornwall Avenue. It assesses the impacts that could result from continuation of current management (the no-action alternative) or the implementation of either of two other action alternatives. Through this analysis the alternative to the proposed action has been identified as the preferred action for the revitalization of Cornwall Avenue. Overall the alternative action retains the same features as the proposed action, with several minor changes designed to reduce its environmental impacts.

1.1 Historical Background

Prior to the automobile age, Bellingham residents came downtown for all of their needs, using public transportation or walking to their destinations. As the automobile era progressed and parking became a major concern, stores began to move away from the downtown retail core to areas lining the I-5 corridor. Ultimately, the development of the Bellis Fair Mall off of Beck’s Theater, Historic Cornwall Avenue.
Guide Meridian in 1988 drastically affected the retail dynamics of downtown. Large anchor stores on Cornwall Avenue moved to the mall area, taking with them the active street life that fed many smaller businesses, and negatively impacting the area’s economic vitality.

1.2 Existing Conditions

Currently, Bellingham’s city center lacks the major retail and infill businesses that make a downtown area thrive. Cornwall Avenue, once home to major retail anchors, liner stores, and restaurants, with the capacity for retail and residential units to expand in a diverse set of aged buildings, is an ideal focus of revitalization efforts. This proposal adds 617,261 usable and attractive square feet to the current 10.7 million usable square feet downtown.

Also in close proximity to public transportation, Cornwall Avenue is beautifully lined with trees and boasts wide sidewalks with a zero line setback in most places. However, parking is a major hurdle for most
businesses located in the city center. Although on-street metered parking is provided, this is not an ideal situation for employees or their customers. Addressing the parking issue will help overcome business owners’ fears about a downtown address.

The Leopold retirement community is currently Cornwall Avenue’s only source of residents. The lack of a strong residential community means many businesses have no reason to stay open after 5pm, and shifts the need for services outside of the city center. With the revitalization proposal, an additional 145 potential residential units (37 of which are in the south anchor site) will help create demand for growth on Cornwall Avenue and in downtown Bellingham.

Cornwall is currently home to a number of offices, many above street level, with the potential to support street level businesses during lunch and after hours. Yet during these peak times many office workers leave Cornwall for Railroad Avenue, which boasts a number of restaurants and allows
more natural light for pedestrians. Cornwall is narrower than Railroad, and features solid awnings with no real consensus of design. Setting design standards for the awnings on Cornwall will afford pedestrians consistent protection from the elements and a well-lit public space.

1.3 Proposed Action

The concept herein for revitalization of the Central Business District is a retail corridor overlay plan which will promote the urban sustainability principles desired by the Bellingham community. The premise behind this plan is to bring in more pedestrian activity through the creation of new anchor stores at either end of Cornwall Avenue, providing business for smaller retail stores between anchors as is commonly seen in a mall like Bellis Fair. Improving the streetscape and alleyways will make Cornwall Avenue a more desirable location for pedestrians and further contribute to the vitality of the downtown area. In addition, improvements to parking and public transportation will encourage a greater use of the area. The biggest of these traffic changes include the changing of one-way streets to two-way streets, and the installation of a trolleybus mass transit system downtown.

For the South Anchor site, a four story parking structure, as well as a four story anchor building will be erected. Some additions will be made to existing buildings within the project reach. The specific designs for the proposed overlay project are illustrated by figure 1 below.
1.4 Alternative Action

Currently, storm water runoff picks up pollutants as it travels over impervious surfaces to storm drains and enters Whatcom Waterway untreated. To address impacts to surface water from storm water runoff, we first recommend that pervious asphalt be used to pave the loading area behind the south anchor store to decrease surface runoff and allow for on-site infiltration.

Second, we propose that a bioretention cell be installed in the pedestrian area of the parking structure site to filter out total suspended solids (TSS) and other pollutants. The parking structure will contain rainwater collection tanks designed so that water is diverted into the bioretention cell once the tanks become full. The bioretention cell, modeled off of a study by
Diblase et al. (2009) will contain a mixture of soil, sand, and organic matter planted with vegetation. After percolating through the porous medium, the water will discharge from the end of the bioretention cell into the City of Bellingham’s storm water system.

Finally, we recommend that pre-existing buildings on Cornwall Avenue install green roofs to further reduce imperviousness of the project area. Green roofs contain vegetation planted in a soil medium that covers the surface of the roof, resulting in a decreased volume of relatively clean runoff from the roof surfaces.

With regard to transportation, we recommend a more modest plan, replacing the proposed trolleybus line with an additional WTA bus route. Also, the proposed conversion of one-way to two-way streets will not be implemented. These alternative actions will cause less interference with downtown traffic and minimize traffic impacts.

1.5 No Action

If no actions are taken to revitalize Cornwall Avenue, there will be no improvements to the retail corridor, and the economic difficulties for retail in downtown Bellingham will stay as they are. There will be no new north or south anchor buildings helping to draw in customers, and alleyway improvements will not take place. Without the construction of a parking garage, vehicle storage will continue to be a limiting factor to retail development. New development will occur in a haphazard, incoherent manner. Proposed improvements to transportation will not occur, and pedestrian utilization of downtown will remain as is.
1.5 Decision Matrix

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2.0 Impacts to the Natural Environment

2.1 Earth

Existing Conditions

Currently, the area of the project proposal contains mostly altered soils and impervious surfaces. The USDA soil classification for this area is “Urban Land”, meaning that the USDA has not been able to classify the soils in this area due to it being covered by development (USDA 1992). It also notes that the downtown area is terraced. In general, development requires removing much of the natural soil profile and replacing some of it with fill. Currently, the areas where the parking garage and anchor store are to be built contain mostly impervious surfaces, which prevent infiltration into the soil.

Proposed Action

The main environmental concerns with the proposed action are grading and erosion during the construction phase. The proposed action will necessitate a small amount of further grading of the area in order to build the parking garage and anchor store. However, it is not likely to cause significant environmental impact, which is why we rated the category of “slope” at (0) on the decision matrix. During the construction phase there is some concern about erosion, as it will require the soil to be exposed. However, laws exist that require a construction site to prevent erosion. In general, small construction sites are required to control erosion and sedimentation from construction activities (Washington State Department of Ecology 2005). This yields a rating of (0) on the decision matrix regarding soil impacts. The proposed action slightly reduces imperviousness in the area by installing rainwater collection tanks on the parking structure,
which is why we rated the category of “impervious surfaces” on the decision matrix as (1). The proposed action is not likely to cause significant adverse impact to the earth.

**Alternative Action**

The alternative proposal still contains the same risks of erosion during the construction phase as the proposed action does. This is not likely to significantly negatively impact the soil, due to erosion prevention laws during construction, which is why we rated the impacts to the soil as (0) on the decision matrix. The slope also gets a rating of (0) since the amount of grading will be minimal. The pervious pavement proposed in the alternative action will allow for slightly more infiltration into the soil compared to current conditions. The green roofs on existing structures also reduce imperviousness. This is why we rated the imperious surfaces category on the decision matrix as (2). The alternative action is not likely to cause significant adverse impact to the earth.

**No Action**

If there is no action taken the ground will continue to be mostly covered with impervious surfaces, which will continue to prevent infiltration into the soil. Because there will be no change compared to current conditions, we rated the impact to impervious surfaces as (0) on the decision matrix. No further grading or infill will occur in the area, and there will be no increased risk of erosion from construction sites, so the categories of “soil” and “slope” also get a rating of (0) on the decision matrix. However, if infill development does not occur on this proposal site, it is possible that currently undisturbed soils will have to be altered in order to accommodate for future growth in outlying areas.
2.2 Air

*Existing Conditions*

Within the City of Bellingham, PM2.5 is the only air pollutant monitored consistently. PM2.5 is particulate matter of a diameter less than or equal to 2.5 micrometers. PM2.5 is formed when gases emitted from combustion, such as sulfur dioxides and nitrogen oxides, react in the atmosphere. A big source of PM2.5 is vehicle exhaust, but other sources include road dust and the burning of wood (Zheng et al., 2002). This pollutant is especially harmful to human health because the particles are small enough to get embedded into lung tissue, not to be easily removed by the body (EPA 2010). There are an estimated 16,300 daily vehicle trips during peak hour (4:00PM -6:00 PM) to the proposal area, which contribute to air pollution.

The Northwest Clean Air Agency is the local air quality agency with authority in Whatcom County. According to the Regulation of the Northwest Clean Air Agency, Section 403, the 3-year mean concentration of PM2.5 shall not exceed sixty-five (65) micrograms per cubic meter of air (μg/m³) for the 98th percentile of measurements, or fifteen (15) μg/m³ when all measurements are included (Regulation of the Northwest Clean Air Agency 403.1).

Currently, the PM2.5 levels in Bellingham, as measured at the Yew Street monitoring station, are well below the threshold limits. The three-year mean of the 98th percentile of measurements is 19.99 μg/m³ (Figure 2), which is 45.01 units below the threshold limit. The three-year mean of concentrations when all measurements are included is 6.6 μg/m³ (Figure 2), which is 8.4 units below the threshold limit.
**Proposed Action**

We estimate that this project will result in an additional 266 vehicle trips per day during peak travel time (4:00-6:00 PM), which creates a risk of increased pollution from automobile exhaust. This is an estimated increase of vehicle trips of ~1.6%. The concentration of PM2.5 in Bellingham is well below the regulatory limits (Figure 2). As such, it is unlikely the exhaust from the increased vehicle trips will cause significant adverse impact to the air quality, based on the air quality data available and our estimate of increased vehicle trips. We scored the proposed action as (-1) on the decision matrix because although it is unlikely it will result in unhealthy air quality, the increase in vehicles to this area will still result in a slight increase of air pollution.

**Alternative Action**

As it is unlikely that the proposed action will result in significant adverse impact to air quality in Bellingham, the alternative action does not discuss any mitigation measures. The alternative
action will likely result in the same increase of car trips downtown compared to the proposed action. As such, it is unlikely that air quality will be significantly negatively impacted by the alternative action, and we scored it as (-1) on the decision matrix.

*No Action*

If there is no action taken, the predicted increase in vehicle traffic from the proposal will not occur. There will be no risk of increased air pollution from automobiles in this area. Thus, we scored the no action alternative as (0) for air quality on the decision matrix. However, if the no-action alternative were to take place, it could lead to more sprawl into Bellingham’s urban growth areas (UGAs), eventually leading to increased vehicle traffic and decreased air quality in the region in the long term.

### 2.3 Water

*Existing Conditions*

Most of the downtown area, including the area of the proposed project, is covered with impervious surfaces. On the site of the anchor store there are small patches of grass in between areas of asphalt, allowing some infiltration into the soil. However, a relatively small portion of the water that falls on this is able to infiltrate, and instead becomes surface runoff. The City of Bellingham’s storm water system draining the proposal site carries runoff through a network of pipes and discharges it into Whatcom Waterway with minimal treatment (Figure 3). The only form of treatment the storm water receives is when it falls into catch basins, which can allow for some suspended solids to fall out of suspension.
Surface runoff picks up pollutants as it makes its way into the storm water system. Some pollutants, such as polycyclic aromatic hydrocarbons (PAHs), are not water-soluble and attach to total suspended solids (TSS) particles (Dibiasi et al., 2009). PAHs are a class of suspected carcinogens which originate from oils and are a by-product of combustion (Menzi et al., 2002; ATSDR 1996). Other common pollutants found in storm water runoff include pesticides and heavy metals such as lead, iron, copper, and cadmium (Pitt et al., 1995).

![City of Bellingham Stormwater System](image)

Figure 3. Stormwater system of the City of Bellingham, WA, showing discharge points of the main lines. Outlined in green is the approximate area of our proposal site.

**Proposed Action**

The proposed action will result in approximately the same amount of imperviousness in the area as currently exists. However, the proposal stipulates that the parking structure have collection
tanks to store rainwater from the structure’s gutters, to be used to water the roof gardens or possibly to flush toilets in the restrooms. This measure slightly reduces the amount of surface runoff coming from the proposal site, which is why we scored it as (1) for water runoff on the decision matrix. The proposed action does not allow for more infiltration into the soil profile, which is why it yielded a score of (0) for groundwater. It was given a score of (1) for impacts to surface water because the collection tanks will result in slightly less runoff carrying pollutants into Whatcom Waterway compared to current conditions. The proposed action is not likely to cause significant adverse impact to water.

**Alternative Action**

As part of the alternative action, we recommend that a bioretention cell be installed in the area of green space adjacent to the north end of the parking structure in order to reduce the impact of surface runoff. A bioretention cell filters out suspended solids and attached toxicants from storm water before it is discharged into a natural body of water or a storm water network. Diblase et al. (2009) determined that by filtering TSS out of storm water with the bioretention cell, attached PAHs were also filtered out. They found a mean total PAH (dissolved + particulate) reduction of 90% (range: 31%-99%). Not only does a bioretention cell filter out solids and toxicants, but allowing water to slowly percolate through soil before entering a natural water body mimics water movement in an unmodified watershed.

Guidelines for bioretention recommend that a bioretention system occupy 5-7% of the drainage area (EPA 2000). In order to achieve the magnitude of reduction in Diblase et al. (2009), the proportion of retention cell area:drainage area was 6%. Our proposal site could contain a
bioretention cell in the green space area on the north end of the parking structure with the dimensions of 140’ x 12’, which is slightly less than 6% of the total drainage area. This size should be adequate to provide a reduction of pollutants that enters the storm water system from the parking structure. This measure will further reduce the parking structure’s impact on nearby water bodies compared to current conditions.

As part of the proposed action, the parking structure will contain rain water collection tanks that store water that makes it into the structure’s rain gutters, to be used for watering gardens on the rooftop or flushing toilets in the structure. As part of the alternative action, the rain collectors could still be used to store rain for watering plants. However, as most of the rainfall in Bellingham occurs during the winter months when there will be lowest demand for watering plants in the gardens, we propose that a system be built that allows rain gutters divert rainwater into the bioretention cell once the collection tanks become full. Once water travels through the cell it could be discharged into the City of Bellingham’s storm water system, which flows into Whatcom Waterway (Figure 3).
A bioretention cell is fairly low-maintenance. Its soil is replaced approximately every 5-10 years (EPA 2000). It begins filtering pollutants immediately, and over time, the soil loses its capacity to adsorb pollutant particles to it. When this happens, the soil should be replaced to keep the cell functioning.

Another measure we propose is taken to further reduce impact to surface water compared to current conditions is to pave the loading area of the south anchor building with pervious asphalt. Unlike typical asphalt or cement, pervious pavements allow rainfall to percolate through them and into the soil. This would result in less surface runoff and reduced pollutant loadings into Bellingham Bay. As it allows more infiltration into the soil profile, the alternative action receives a score of (1) on the decision matrix for groundwater.

Finally, we propose that pre-existing buildings on Cornwall Avenue carry out green roof construction. This would further decrease imperviousness in the area, resulting in less surface water runoff and pollutant loading into Bellingham Bay.

Specific layers in a green roof may vary, but a typical green roof consists of an array of plant species planted in a soil substrate, a geotextile, a drainage layer, and a waterproof membrane at the bottom (EPA 2000). A 3-inch substrate depth has been shown to reduce runoff of rainfall by 50% (EPA 2000), and the water that does run off will be cleaner, as it is filtered through the vegetation and soil. Vegetated roof covers also offer such benefits as extending the life of a roof.
and providing thermal insulation, which provides other environmental benefits, as energy use for heating and cooling can be decreased.

All three of the abovementioned ways to lessen impacts to water result in less imperviousness and cleaner runoff, which is why we scored the alternative action as (2) for water runoff and (2) for surface water on the decision matrix.

No Action
If no action is taken, the amount of imperviousness in the project area will remain the same as it currently exists. Most of the water that falls on this area will continue to move over impervious surfaces into the storm water system and be discharged into Whatcom Waterway with minimal treatment. The no action alternative does not change anything compared to current conditions, thus it receives a score of (0) for surface water, (0) for groundwater, and (0) for water runoff on the decision matrix. However, if the infill development on this site does not occur, it is possible that growth will sprawl into places of Bellingham that are not currently covered with impervious surfaces, further contributing to the problem of non-point source pollution coming from storm water runoff.

2.4 Plants
Existing Conditions
The south end of Cornwall Avenue is an urbanized environment near a highly industrialized waterfront. The ground is mostly covered by impervious surfaces such as roads, sidewalks, and buildings, giving little chance for natural vegetation to colonize this area of downtown. Some invasive species such as Reed Canary Grass, the Himalayan Blackberry, Morning Glory, and
English Ivy have managed to colonize the few remaining non-impervious surfaces within the southernmost end of the project reach (where the south anchor and parking structure will be erected). There are also many landscaped/potted plants lining the sidewalks and storefronts. Much of the landscaped vegetation is composed of evergreens, alders, or maples; as well as potted flowering plants, shrubs, and a few small patches of grass. No endangered or threatened species were found within the South Anchor project site.

**Proposed Action**

According to plans for the south anchor site, some naturally occurring vegetation will be removed. However, the only naturally occurring on-site vegetation is composed of invasive species. Removal of such species will not adversely impact the environment. Proposed landscaping includes planting trees along sidewalks, in rooftop green spaces, and along the street median. The parking structure will have a rooftop urban garden as well as a greenhouse serving as a source of goods for the nearby farmers market. Rooftop Storm water runoff will be collected and used to water plants in the garden rather than letting it drain into Bellingham’s storm water system, which flows directly into Whatcom Creek and Bellingham Bay. The proposed action will likely increase biodiversity among plant life and bring more native vegetation to the site, which is why we gave this option a score of (1) in the decision matrix.
**Alternative Action**

The alternative action would encompass the same plans for green spaces and urban gardens within the project reach. However implementation of a bioswale, constructed storm water treatment wetland, or some other functioning bioretention system is advised due to an expected rise in contaminant and sediment loading in storm water runoff. Rain collection systems are also advised for the south anchor building, helping to alleviate impacts due to storm water runoff. The alternative action received a score of (1) as well, because it too will provide a more diverse biological community downtown, but is not expected to have a strong positive impact.

**No Action**

If no action is taken, vegetation within the project site will remain as is. No bioretention system will be built to help filter storm water runoff entering Whatcom Creek and Bellingham bay. Invasive species will not be removed from the few remaining non-paved surfaces, and vegetation will not be planted in the parking garage’s rooftop garden. There will be no changes to the site, which is why we gave this option a score of (0) for no impact.

**2.5 Animals**

**Existing Conditions**

Downtown Bellingham is an urban environment and does not provide necessary functions required to support diverse populations of wild animals. However, some typical urban species do enter the Cornwall Avenue corridor as well as
nearby Whatcom Creek. Songbirds and the occasional stray deer can be found within the project site. There are currently salmon, trout, and shellfish populations within Whatcom Creek and Bellingham Bay, which receive storm water leaving the project site (Figure 3). Threatened Puget Sound Chinook and Steelhead populations utilize Whatcom Creek for spawning habitat, and shell fishing occurs within Bellingham bay (Forester, 2009). Thus any potential water quality issues arising from the Cornwall revitalization project have the ability to affect wildlife within the above mentioned systems.

Whatcom Creek flows west from Lake Whatcom to Bellingham Bay through an urban setting. Water from Lake Whatcom is released into Whatcom Creek, with flow regulation primarily managed to maintain the lake’s appropriate water level (Madsen & Nightengale 2009). Water flowing into the creek is typically high in fecal coliform units, and often exceeds the core summer salmonid habitat aquatic life use designation of 16C (City of Bellingham, 2009). On June 10th, 1999 a gas pipeline adjacent to Whatcom Creek ruptured, releasing up to 227,000 gallons of gasoline. The gasoline then caught fire and caused considerable short term damage to the already sensitive urban ecosystem (Owens, 2001). Environmental conditions have greatly improved since the incident, but great care is needed to preserve and enhance this delicate aquatic environment. (City of Bellingham, 2009)

The main aquatic species of concern within Whatcom Creek are the federally listed, threatened populations of Puget Sound Chinook salmon and Steelhead trout. Other federally listed species
of concern that utilize Whatcom Creek include Coho salmon, Pink salmon, and Cutthroat trout. Bird species that have been documented to be present within the Whatcom creek burn zone are listed in table 1 (Madsen & Nightengale, 2009).

Table 1. Bird species of concern known to be within the Whatcom Creek watershed

<table>
<thead>
<tr>
<th>Species</th>
<th>Priority Species (Criterion 1 – Species of Concern)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bald eagle</td>
<td>Priority Species (Criterion 1 – Species of Concern)</td>
</tr>
<tr>
<td>Merlin</td>
<td>Priority Species (Criterion 1 – Species of Concern)</td>
</tr>
<tr>
<td>Pileated woodpecker</td>
<td>Priority Species (Criterion 1 – Species of Concern)</td>
</tr>
<tr>
<td>Vaux’s swift</td>
<td>Priority Species (Criterion 1 – Species of Concern)</td>
</tr>
<tr>
<td>Great blue heron</td>
<td>Priority Species (Criterion 2 - Vulnerable Aggregations)</td>
</tr>
<tr>
<td>Hooded merganser</td>
<td>Priority Species (Criterion 3 - Species of Recreational, Commercial, and/or Tribal Importance that are Vulnerable)</td>
</tr>
<tr>
<td>Wood duck</td>
<td>Priority Species (Criterion 3 - Species of Recreational, Commercial, and/or Tribal Importance that are Vulnerable)</td>
</tr>
</tbody>
</table>

Bellingham Bay is important habitat for marine species and was listed in 1998 on the DOE 303d list for contaminated sediments. pH and fecal coliform are also pertinent water quality issues. These sediments pose an issue to marine and public health as contaminants can move up the food chain, potentially harming wildlife as well as human beings. Source control and monitoring activities are currently being implemented; however non-point source pollution continues to be an issue. Eleven storm drains empty directly into the bay, while another 64 are located in watersheds that drain to the bay, including the Nooksack River and Squalicum, Little Squalicum,
Whatcom, Padden and Baker Creeks (DOE, 2001). The south anchor project reach is within the Bellingham bay and Whatcom Creek watersheds, with one storm water drain emptying directly into the mouth of Whatcom Creek, and two more directly into the bay (Figures 5 and 6).

**Figure 5.** Storm water drainage systems in downtown Bellingham. The south anchor project reach is outlined in black.

**Figure 6.** Downtown Bellingham watershed boundaries. The south anchor project reach is outlined in black. The Bellingham Bay watershed is highlighted in yellow and Whatcom Creek in green.

**Proposed Action**

The proposed action does not have any plans directly impacting wildlife or habitat, and has received a score of (0) for no impacts to terrestrial or aquatic organisms. Within the urban environment, impacts to wildlife will not be significant and primarily involve the removal of landscaped vegetation. Rainwater collection systems and rooftop gardens will help reduce levels of rooftop storm water runoff reaching Bellingham’s waterways. The parking structure will provide a covered area for cars to park, and in doing so will contain non-point source pollution from automobiles. This will also help to mitigate adverse environmental impacts arising from increased auto traffic to the area.
Alternative Action

The alternative action will take into account non-point source pollution arising from the proposed construction on Cornwall Avenue. Implementation of the original plans for rain collection and rooftop garden will still be encompassed in the alternative action. However a bioretention system shall be installed on the south side of the parking structure, allowing for natural filtration of urban storm water runoff. Rain collection systems should also be implemented in the design of the south anchor building. The bioretention system will help decrease sediment loading to Whatcom Creek and Bellingham Bay, as well as common contaminants commonly found in urban storm water runoff such as PAH’s and other common petroleum based constituents. Many contaminants sorb to soil particles and are carried into the environment via storm water, so the retention of sediments is crucial in reducing contaminant loading to Whatcom waterways (Hoffman, 1984). If this plan is implemented, there will likely be slight positive impacts to storm water leaving the site, improving water quality for aquatic organisms, which is why this option received a (1) in the decision matrix. This option scored a (0) for impacts to terrestrial animals, as there are very few that utilize the site as habitat. This option also scored a (1) for impact to endangered species, as Chinook and Steelhead spawn in nearby Whatcom creek, and will benefit from improvements to storm water runoff.

No Action

No buildings will be built, wildlife will not be affected, and the south anchor project site will remain as is. This option will score a (0) for no impacts, as no changes will be made to the site.
2.6 Energy and Natural Resources

*Existing Conditions*

The site is located within a previously developed, industrialized area of downtown Bellingham on the southern end of Cornwall Avenue. Natural resources are not extracted from the area, and energy is currently supplied by Puget Sound Energy (PSE). There are 3 buildings near the project site that have implemented green building practices. Kateri Court located on 110 E Chestnut St is Leed NC certified, the Depot Market Square located on 1100 Railroad Avenue is Leed Registered, and Boundary Bay Brewery located on 1103 Railroad Avenue has implemented reinforced grass paving for the outdoor beer garden (City of Bellingham, 2010).

There is an existing Natural Gas plant located near the site that will supply clean energy to the proposed structures. Encogen, which is a clean burning natural gas plant, is owned by Puget Sound Energy and is located at 915 Cornwall Avenue Bellingham, Washington 98225. This plant was built to supply energy and water from condensed steam to the Georgia Pacific mill. Since the mill has closed, PSE relies on the plant to produce energy in times of drought or peak energy use, when hydropower supplies are insufficient. The plant creates energy by burning natural gas in a combustion turbine that drives an electric generator. Heat from the combustion process is also used to
generate steam that drives a steam turbine, generating additional electricity. Spent steam from the turbine is then condensed and recycled. (Puget Sound Energy, 2007)

**Proposed Action**

The Proposed action includes energy conservation plans for the south anchor building as well as the parking structure. The proposal will not affect the potential use of solar energy by adjacent properties, as there will only be minimal additions to existing buildings north of the south anchor site. The parking and south anchor buildings within the site will be limited to four stories in height, and will be nearly level with existing structures (WWU, 2010).

Energy conservation features included in the proposed action will help to conserve energy and lessen natural resource impacts related to the project. Both buildings will use as many recycled building materials as possible, conserving natural resources, decreasing energy use, and lessening greenhouse gas emissions from new construction. The project as a whole intends to localize the downtown retail environment, reducing distances travelled by residents for shopping and entertainment.
The south anchor building will have large street level windows as a display area for stores, which also provide additional street lighting during evening hours. The roof will be mostly flat with solar panels facing the east and west to capture morning and evening sun. Skylights will run parallel to the solar panels, providing additional lighting to the top floor and reducing energy usage. The building makes use of solar panels to provide energy for light but also creates the potential for solar thermal heating, which may be more efficient. Solar thermal heating makes use of lar energy to provide energy in the form of steam for the building. This energy can power lights or be used as a sustainable way to heat water in the building which will prove valuable and cost saving during the winter months (WWU, 2010).

For additional energy, there is a nearby gas plant just two blocks from the South Anchor site. Steam produced from this gas plant will be redirected through pipes to the South Anchor building, and provide year-round clean energy. The proposal cites this energy source as a renewable and sustainable energy source, however obtaining energy from natural gas fulfills neither of these requirements. It is however clean burning, and will continue to be in operation whether or not the south anchor project is implemented.
The parking structure will employ similar energy sources, with solar panels providing energy to light the garage at night and heat water for showers. Rain collection systems will be implemented, and the collected rain water can be used for the urban garden, flushing toilets or other non-potable uses. Collection of rooftop runoff will help to reduce on site storm water pollution.

These building are LEED certified structures, and as so implement modern sustainable design, and will likely have some positive impacts to the area. This option scored a (1) in the decision matrix because it calls for use of onsite sustainable energy, and will likely encourage other businesses and residents to do the same.

**Alternative Action**

The alternative action shall include all proposed actions for energy use and conservation; however rain collection systems will also be implemented on the south anchor building. By collecting and recycling storm water runoff from both structures, increased pollution due to heightened auto traffic may be effectively mitigated, and storm water can be used for steam power to the building. This action also received a score of (1) as the proposed action called for
the use of sustainable onsite energy, and will also recycle storm water for potential steam energy
generation.

No Action

In the case where no action is taken, existing parking areas will be left as is, no buildings will be
built, and no additional parking will be available for downtown Bellingham. No extra energy
will be required on site, and there will be no interference to the availability of solar energy to
surrounding infrastructure, which is why this option scored a (0) in the decision matrix.

3.0 Impacts to the Built Environment

3.1 Environmental Health

3.1.1 Health Hazards

Existing conditions

Soil contamination: Though the nearby waterfront houses the former Georgia-Pacific pulp mill, a
source of mercury, zinc, cadmium and phenolic pollution, the proposed redevelopment, located
uphill from the shoreline, stands at low risk of contamination from waterfront industrial uses.
Nonetheless, the slope of the land permits contamination from former dry cleaning, photo
printing, and automotive uses on or east of the site. (Environmental Solutions Association, 2009).
Historical fire insurance maps show that such businesses all existed on the site between 1913 and
Atmospheric contamination: Asbestos, banned from most construction uses in 1989 (US EPA, 1999), poses another risk of exposure to hazardous material during demolition. In the absence of a survey by an accredited inspector, asbestos must be assumed present in the surfacing and insulation of any building constructed during or prior to 1980 (Washington State DOE, 2010). After an engineering survey is performed to determine the structural integrity of the building, asbestos must be tested and removed before demolition can commence (Washington State Legislature, WAC 296-155-775(9)). Workers must be trained to recognize and handle asbestos. If previously undetected asbestos is encountered, testing and removal must be completed before further demolition.

Hazardous waste handling: Toxic wastes must be disposed of in accordance with the Whatcom County Disposal of Toxics Program. These include paint thinner, turpentine, latex, lead- and oil-based paints, mercury switches, roofing tar, adhesives, caulks, resins, fluorescent tubes and contaminated rags. After proper reduction and handling, these materials can be delivered to the Disposal of Toxics facility (Whatcom County Public Works Administration, 2007).

Emergency response: In the event of a hazardous waste incident, the Whatcom County Division of Emergency Management provides trained staff and technical assistance (Whatcom County Division of Emergency Management, 2007, Hazardous Materials). The Emergency Operations Center disseminates information to the public through the Emergency Alert System in a major disaster (Whatcom County Division of Emergency Management, 2007, Emergency Operations Center).
Proposed action

Soil contamination: The excavation of the proposed South Anchor site and Cafe Akroteri parking lot will expose workers to any soil contamination present. Former dry cleaning, photo printing, automotive or gasoline operations pose risk of contamination, however, excepting improper disposal, illegal dumping, catastrophic spills or poor housekeeping practices, these are not probable causes of significant impact (Environmental Solutions Association, 2009).

Asbestos handling: The refacement of the Bank of America and south Leopold buildings could subject workers to asbestos exposure without adherence to the above proper procedure. It is assumed these steps will be followed in the proposed action.

Because these forms of hazardous waste must be identified and properly handled by law, the proposed action is anticipated to have a neutral impact of (0).

Alternative action

Waste mitigation: Waste generated during demolition will be contained and, to the fullest extent practicable, salvaged and reused as raw material. Local demolition contractors such as Lautenbach Industries (www.lautenbachind.com) and the RE Store (www.re-store.org) are able to haul waste for recycling and salvage. This requires determining what waste streams must be separated for recycling and allowing sufficient space for separation. Materials for construction will be purchased if possible from reused sources. By redirecting a waste stream toward new construction, these measures earn the alternative action a positive score of (1).

No action
If demolition and construction do not proceed, any existing soil contaminants and asbestos will remain undisturbed, leaving an impact of (0). Eventually, cleanup under the TSCA may be required.

3.1.2 Noise

Existing conditions

A small degree of operational noise from industry and demolition on the waterfront reaches the proposed redevelopment site. Traffic, waste collection, road work and construction also contribute to mild noise levels.

Proposed action

Noise generated during construction and demolition will adversely affect the surrounding neighborhood in the short term. This will likely occur during daytime business hours. Long term noise will result from increased vehicular and pedestrian traffic on the site. Encouragement of busing and bicycling, and in particular bicycling, will reduce vehicular traffic. However, the proposed trolleybus will increase levels of traffic noise, and the proposed short term construction in close proximity to businesses and elderly residents is anticipated to have a heavy negative impact of (-2).

Alternative action

Sources of construction noise most likely to engender complaints include back-up alarms, slamming tailgates, and hoe rams (US DOT, 2008). Measures to reduce the noise of back-up alarms will be implemented, such as volume monitors, a traffic pattern that minimizes backing,
or the use of an observer rather than an alarm. Noise from slamming tailgates will be mitigated with rubber gaskets, controlled speed of closure, or bottom dump trucks. Hoe rams will be quieted with a noise shroud (New York City DEP, 2008).

Quieter available models of equipment, such as US-made European environmental label, will be used. Vibratory or hydraulic impact pile drivers and hydraulic cranes will be preferred over regular models (New York City DEP, 2008). Employing electric or hydraulic equipment will in general produce less noise than diesel-powered equipment. Using jack hammers with molded intricate mufflers will reduce noise levels by 15 decibels at 50 feet (US DOT, 2008). Overall noise levels tend to depend on the operating power of the equipment. Particularly in hoe rams and vacuum trucks, power will be reduced to lowest levels required for operation (US DOT, 2008). In addition, the replacement of the trolleybus with a WTA bus line will mitigate long term traffic noise impacts.

Although unable to eliminate noise completely, these measures will serve to reduce impacts over the short and long term, together earning the alternative action a (-1).

No action

Noise will continue at current levels in the absence of the proposed project, for a score of (0).

3.2 Land & Shoreline Use

3.2.1 Relationship to Existing Uses, Zoning & Designations
Existing conditions

Current use: The proposed redevelopment site is currently home to mainly commercial uses, with a block of residences east of Cornwall between Holly and Chestnut. Sizeable amounts of public parking are located between Chestnut and Holly, as well as considerable vacant space. The area adjacent to the south belongs to the Port of Bellingham and features marine and industrial uses.

Figure 7. Current land uses. www.cob.org/documents/gis/maps/neighborhoods/CBD-CurrentUse.pdf
Zoning: The site falls within Areas 12 and 16, both zoned as Central Commercial (City of Bellingham Planning Department, 2008). Area 12, designated as the commercial core, is intended to accommodate complete commercial facilities within convenient walking distances. Area 16, meant to bridge the commercial core to the north with the industrial area to the south, is allowed mixed commercial and light industrial uses (City of Bellingham Planning Department, 2008, Central Business District Neighborhood Plan), which include public garages, utilities, warehousing and light manufacturing (City of Bellingham, 2008, City of Bellingham Municipal Code, Title 20).

Comprehensive Plan designation: Consistent with current zoning, the comprehensive plan designates the site as core commercial. This entails maintaining the site as the city’s dominant cultural, civic, and commercial center. Businesses and pedestrian traffic should be welcomed, underutilized space should be redeveloped for efficient use, and building height and design should reflect the central, historical character of the neighborhood (City of Bellingham, 2005, Bellingham Comprehensive Plan).
Shoreline Master Program designation: The Bellingham Shoreline Master Program regulates land uses within 200 feet of the ordinary high water mark, and thus does not directly affect the proposed redevelopment site, but adjacent properties (City of Bellingham Planning Department, 2008, CBD Neighborhood Plan, Section 3: Shoreline Master Program). The Bellingham Bay waterfront is designated High Intensity Urban Maritime, and Whatcom Creek, Urban Conservancy (City of Bellingham Planning Department, 2005, Introduction to the Shoreline Master Program Update). The site redevelopment will affect the Whatcom Creek watershed insofar as the storm water lines from north of Chestnut Street run to an outlet at the mouth of the creek. For full descriptions of designations and allowed uses, see City of Bellingham (2009) Bellingham Municipal Code, Title 22).

Proposed action

The proposed redevelopment seeks to bring the Central Business District into alignment with its comprehensive plan designation through the attraction of anchor retail and reorientation of the streetscape toward pedestrians. For its close adherence to existing zoning, uses, and designations, as well as interfacing with future development on the waterfront, the proposed plan earns a positive (2).

Alternative action

The aim of the alternative action remains essentially the same as that of the proposed action, retaining a score of (2).

No action
If no action is taken, outlying retail will continue to usurp the Central Business District’s role as a core commercial area. Downtown, left as is, fails to provide a complete suite of convenience services and shopping opportunities. Out-of-character construction, vacancies, and minimal pedestrian usage will persist on the site. With no alterations to the current course of development, this action earns an impact of (0).

3.2.2 Structural Elements & Housing

Existing conditions

Structures: The most prominent structure on the site is the Leopold Retirement Residences, surrounded by businesses such as the Bank of America, Ideal art gallery, Green House furnishings and décor, Café Akroteri, and further south, Eva Salon, Shrimp Shack and Kulshan Cycles. These buildings exhibit a mixture of desirable and less desirable characteristics, most fronting the sidewalk and some with consistent façades, but many with variable awnings, inconsistent material use, or sloping exteriors. Sub-optimal building heights are found on the Bank of America and Shrimp Shack properties. Underutilized space is present in the surface parking north of Café Akroteri, below the southern wing of the Leopold, and south of Chestnut Street. Vacant real estate is found adjacent to the Shrimp Shack and Eva Salon.
**Proposed action**

Modifications to existing structures: Added building height has been proposed for the Bank of America building and the southern portion of the Leopold Residences. While the proposal does not specifically require their demolition, the buildings will likely have to be reconstructed or at least refaced to bring them up to standard. The investment in new construction would warrant their complete demolition.

The Innate, India Grill, and Café Akroteri buildings are proposed for façade redevelopment. Residences will be added above the Shrimp Shack structure, and the surface parking adjacent to Café Akroteri will be replaced with mixed use development.

Figure 10. Eva Salon building on Cornwall & Chestnut. Façades should be brought outward and awnings extended over the sidewalk to provide a consistent pedestrian experience.

Housing: The complete project will add at least 65 housing units on the Cornwall site. At an average of 1000 sq. ft. per unit, the portion under consideration will offer approximately 37 new units. According to the proposal, these are intended to provide housing opportunities to seniors, students, and
young professionals (ESTU 470 Urban Transitions Studio, 2010, p. 17). Yet, depending on the success of revitalization of the site, these housing units may experience increased demand and heightened rent prices, displacing low income demographics.

Alternative action

In order to reduce the impacts of displacement, the Bank of America might be relocated across Holly Street to the old National Bank building, and temporary accommodations might be made for residents of the 47 units in the southern Leopold. If the construction of additional residences above the existing Leopold and Shrimp Shack structures is shown insufficient to offset the impacts of heightened rent on low income residents, then certain rules regarding tenant income or age might be implemented. This may be addressed by retaining added residences under the ownership of the Leopold, or stipulating that the same number of rooms be reserved for seniors upon completion of the project.

No action

If, on the other hand, additional housing is not included in the project and development not concentrated within the Central Business District, projected growth will extend into the 5-Year Review Areas, creating heavier sprawl and traffic-related issues (City of Bellingham, 2004, How Should Bellingham Accommodate Growth?).

3.2.3 Light & Glare

Existing conditions
Current lighting on the site consists of minimal glare from storefronts and street lamps in the evening. Some light from the cogeneration plant and demolition site may reach the proposed development during nighttime hours.

**Proposed action**

Light from businesses during the early evening may interfere with views from residences on Cornwall or further uphill. Increased lighting can be expected to correspond with the current evening hours of Bellis Fair Mall, between 6 and 9 pm Monday through Saturday (Bellis Fair, 2010). However, the project will produce less glare than a conventional mall due to its urban infill nature. Parking and shopping concentrated in multi-story structures rather than sprawled lots will minimize the need for large overhead lighting. Surrounding buildings will serve to block light from reaching neighboring streets.

**Alternative action**

Further features to reduce glare impacts could include downward-facing, contained street lights, tree cover along streets, awnings on lower stories and blinds on upper story windows. Otherwise, street-level lighting will be encouraged to promote safety and public use.

**No action**

Lighting will be maintained at current levels, for a score of (0).
3.2.4 Aesthetics

Existing conditions

The site of the proposed development consists of two surface parking lots. The one east of Cornwall is publicly owned, and west of Cornwall, privately owned.

Proposed action

The proposed South Anchor building, 50 feet at its highest point, will stand three stories tall in the front and four in the back. The brick exterior lined with windows reflects the traditional character of the neighborhood (Figure 12).

Design inspirations are shown below (Figures 13 and 14).

Figures 13 and 14. Site of the proposed South Anchor retail (above right) and parking structure (above).

Figure 12. South Anchor retail design concept. Credit: ESTU 470 Planning Studio 2010, South Anchor Building.
The proposed three-story parking garage will consist of brick and concrete walls with glass partitions that partially reflect the character of the surrounding area (Figure 15 – ESTU 470, 2010, Parking Structure, aerial view). Some more modern design inspirations are shown below (Figures 16 and 17).
To mitigate aesthetic impacts, the proposed structure features open construction to admit some light, limited retail space on the lower level, tables, seating, human-scale street lights, trees, plants, lawn and a fountain on the north side, planter boxes in windows and hanging baskets on street lamps. The design includes an urban roof garden to serve as a rain catchment system and supply the farmers’ market with local produce (ESTU 470, 2010, Parking Structure, aerial views).

Building height additions will raise the Bank of America building from 1 story to 6, the southern portion of the Leopold from 4 stories to 6, and the Shrimp Shack building from 1 to 3 stories. Views obstructed by the proposed development will include those from the back of the Boundary Bay Brewery and adjacent furniture store, and from the Leopold Residences across the current Café Akroteri surface parking.

By removing aesthetically uninspiring surface parking lots, the proposed development scores a positive impact. However, the design features of the proposed structures, particularly the blank walls of the parking garage, are found lacking. Blockage of view corridors from infill, especially across from the Leopold Residences, also has the potential to negatively affect the neighborhood, resulting in an overall impact of (0).

Alternative action

In designing the parking structure, architectural details such as decorative pilasters or cornices will be considered to add interest. More ground-floor retail, roadside boutiques or mural art will be added to alleviate blank walls, particularly on the alleyway. Modern designs that make use of traditional materials will aid in fusing new and existing construction. Larger windows on the
mixed use development across from the Leopold to reflect maximum light will reduce impacts on views for the residents. These measures help to score a positive impact of (1), recognizing that, with input from professional architects and designers, more might be done to improve the aesthetics of the proposed redevelopment site.

No action

Without the proposed development, the two surface parking lots south of Chestnut, and the site of the proposed parking garage in particular, will remain in their present, aesthetically unappealing state. The Café Akroteri surface parking may provide some continued benefit by admitting sunlight onto Cornwall, but will not add substantially to the aesthetic character of the neighborhood. These contribute to a neutral score of (0).

3.2.5 Recreation

Existing conditions

The site currently fosters some road biking and walking, as well as boating and related uses in the adjacent marina.

Proposed action

The proposed project will enhance biking, walking, and waterfront access. The interurban trail system will benefit from increased connectivity. Bike parking and storage lockers and showers for cyclists will be provided in the new parking structure (ESTU 470, 2010, Cornwall Parking Structure, p. 3). In addition, between 30 and 100 bicycles will be offered through the proposed bike share program (ESTU 497g Urban Transitions Studio II, 2010, Growth Projections, p. 2).
Opportunities for leisure and social gathering will be afforded through widened sidewalks, seating areas, and open lawn space. The park adjacent to the proposed parking garage will connect to the Boundary Bay Brewery beer garden, while revitalization of the southern anchor site will promote access to the farmers’ market and proposed waterfront development (ESTU 470, 2010, Parking Structure Report, p. 2 & South Anchor Building Draft Proposal, p. 1).

The extensive addition of recreational opportunities, and in particular the interconnection of the Cornwall site to adjacent uses, earns the proposal a positive score of (2).

**Alternative action**

All provisions for recreation in the original proposal would be maintained in the alternative proposal, retaining a score of (2).

**No action**

Existing recreation activities would persist as usual, giving an impact of (0).

### 3.2.6. Historic & Cultural Preservation

**Existing conditions**

The downtown area features a number of distinguished historical landmarks. Of those on or adjacent to the site, three are listed on the National Historic Register – the Leopold Hotel (1224 Cornwall), the Bellingham National Bank (101-111 E. Holly) and the Washington Grocery Building (1133-35 Railroad).
Proposed action

The proposal does not indicate any alterations to registered historical structures, only to adjacent properties. Though these are to be developed generally in keeping with the historical character of downtown, details are not specified, earning a score of (1).

Alternative action

In the alternative, the historical National Bank and Leopold Residences are to be not only preserved but used as a model for subsequent development. To the extent possible, the Bank of America and southern Leopold Residences should be rebuilt to reflect the character of the original Hotel Leopold and Lighthouse Block. (Downtown Bellingham Partnership, 2008).

This proposal upholds a conception of the downtown retail area in which the destruction of historic landmarks since the 1950s is not merely halted, but reversed, earning a score of (2).
It is possible, but unlikely, that this project would uncover any unknown artifacts of cultural or archeological importance. Recently, crews digging below Magnolia Street found old street car lines and communications vaults that were built in place with brick and mortar. It is unknown if any cultural artifacts of importance will be unearthed. Any resources found must be assessed by a professional archaeologist according to applicable county and state laws. The archaeologist would determine whether the materials were evidence of a previously unknown site or feature, or if the materials were of no cultural significance. If the object(s) were considered to be significant by the archaeologist, the Nooksack Tribe of Indians, Lummi Nation, and the Washington State Department of Archaeology and Historic Preservation would be contacted.

Should human remains be unearthed during the course of construction, earth movement, clearing, or other site disturbance, all work would immediately halt until the significance of the find could be evaluated. The contractor would be required to promptly notify the following groups and agencies:

- The Whatcom County Medical Examiner
- Whatcom County Sheriff’s Office
- The Lummi Nation
- Nooksack Tribe of Indians
- Washington State Department of Archaeology and Historic Preservation

*No action*

Historical register buildings would remain as is, however, adjacent buildings would not be refaced to match their character. This earns a score of (0).
3.3 Public Services & Utilities

Existing conditions

Water, storm water, and sewer lines are currently provided by the city (City of Bellingham, City IQ Map Viewer), while electricity and natural gas are provided by private utilities Puget Sound Energy and Cascade Natural Gas.

Proposed action

Parks & Recreation: The Bellingham Parks & Recreation Department will be providing amenities for the planned open space north of the proposed parking structure. Of the four classifications available, this open space meets the description of a neighborhood park, whose purpose is to serve the “active and passive recreation activities” of “a wide variety of age and user groups”, creating “a sense of place by bringing together the unique character of the site with that of the neighborhood” (City of Bellingham Parks Department, 2008, p. 17).

The responsibility of the Parks Department to provide parking spaces will be met by the adjacent parking facility. Bike racks will also be provided by the same entity that constructs the parking facility, while seating, tables, trash receptacles, lawns and landscaping will be provided and maintained by the Parks Department. (City of Bellingham Parks Department, 2008, p. A1).

Water, storm water, and wastewater: The site is currently fitted with adequate amenities to accommodate the proposed development. No capacity issues limit service to the site. On-site storm water treatment is only required if water flows to a non-tidally influenced body of water,
such as Whatcom Creek above the dam line; as it is, water would flow to Bellingham Bay, a tidally influenced body.

On-site retention is required only if 50,000 sq. ft. of new paved surface, exposed to precipitation, is added for automobile use. In the case of the proposal, the parking garage will be built on already-paved land and will be covered by a roof. Furthermore, that roof will feature vegetation, doubly satisfying run-off mitigation requirements.

**Alternative action**

Parks & Recreation: Parking spaces reserved for disabled and senior citizen users should be located in closest proximity to the park. Public restrooms should potentially be located in the parking garage. Other features such as artwork should be included to enhance the unique character of the park.

Storm water: The alternative proposal includes further measures to remove contaminants from runoff, such as pervious asphalt behind the south anchor structure, a bioretention cell in the open space adjacent to the parking garage, and green roofs on existing buildings.

**No action**

Demand for public services and utilities would increase at the low rate of projected development. No new services would be required at this time. No new parks would be put in place, and no mitigations of existing runoff would be implemented.
3.4 Transportation

Existing Conditions

Downtown Bellingham’s current street grid is partially comprised by one-way streets. There are 16,300 PM peak vehicle trips currently downtown daily. These streets carry automobile, bicycle, and pedestrian traffic. The WTA Bellingham Station is located three blocks away from the south anchor site and serves all of Whatcom County. The WTA Gold Line runs along Cornwall Avenue north of the site and the WTA Red Line runs along State Street two blocks away from the site. Also the South Bay Trail begins just south of the south anchor site, connecting the proposed project to Fairhaven.

Parking in Bellingham’s central business district is provided by a mixture of on- and off-street public parking, and private off-street parking lots and garages. The majority of the on-street parking is time restricted. Of those with time limitations, the majority are metered, with time limitations ranging from one-half to six hours, and more than 75 percent with two hours or less for parking. These 1,000+ time-limited spaces are intended to serve the patrons of businesses downtown. Within this area, there are almost 2,700 off-street parking spaces, including another approximately 100 short-term parking spaces within City of Bellingham-owned parking structures. In addition approximately 1,000 parking spaces are open to the public,
either in small lots that directly serve customers of businesses on the same premises, or in small privately operated parking lots that charge a small hourly or daily fee. Of the approximately 3,800 total spaces, 1,600 off-street parking spaces are available by permit only and primarily serve employees and business owners in the downtown core (Downtown Bellingham Parking Strategy).

Proposed Action

The proposed action will increase vehicular trips taken in the PM peak volume time roughly by 260 trips; this increases the need for parking and continuous transportation. The proposal for the project includes the addition of a trolleybus route providing a loop around the core of downtown, starting along Cornwall Avenue, then making a right onto York Street, continuing to State Street, and moving back onto E Maple Street to the Transit Center. The route would feature Cornwall Avenue and State Street which are two of the most traveled roads in downtown. Adding the trolley on these roads would ensure long-term and high frequency ridership. This will have a significant negative impact on the built environment. The trolleybus could interfere with existing vehicular and bicycle traffic. The trolleybus will add more noise downtown from the metal on metal contact, and will adversely impact the aesthetics downtown with the addition of electric cable (First Hill Street Car). The trolley stops and platforms created will greatly limit the number of on-street parking and could possibly interfere with major utilities in the area.

A parking structure was also proposed for the project. The structure is to be located on the corner of E. Maple Street and Cornwall Avenue and create an additional 260 spaces to incorporate the induced traffic from added retail spaces. This will have a positive impact on downtown congestion due to accessibility to downtown businesses and allow for easy access to additional
parking in the retail corridor. The structure is well connected to the retail corridor, providing many opportunities for alternative transportation such as biking, walking and access to the additional bus stop.

To increase connectivity downtown, two-way streets were proposed. To the downtown area surrounding the focus site of Cornwall Street, this proposal suggests a nearly universal conversion of one-way streets to two-way, including North Forest, North State, Bay, East and West Champion, East Magnolia, East Holly, and East Chestnut. In the site area discussed, conversion to two-way streets would yield a 53% increase in connectivity in terms of lateral routes, and would thus significantly improve accessibility and movement throughout the downtown area. Although the two-way street system is said to increase connectivity downtown; the project will have a significant negative impact on congestion and traffic flow. “A Circulation Study, which did not include the Waterfront District Redevelopment proposal, clearly documented that converting only Champion and Chestnut to two-way streets would cost $4.5 million, would require the removal of pedestrian bulb-outs, and would have marginal improvement value for access and circulation” (Downtown Bellingham Circulation Study 2006). The two-way streets and addition of turn lanes would create longer wait times at traffic lights and decrease pedestrian space for movement downtown and cost millions of dollars.

The implementation of a more connected trail system would greatly encourage non-motorized travel and improve city goals toward a sustainable future. Installing a trail to connect the heavily used South Bay Trail to the southwest of downtown to the scenic Whatcom Creek Trail will have a positive impact on mobility downtown and will improve connectedness within Bellingham.
To further increase mobility downtown, a bike share program starting with an initial fleet between 30-100 bicycles was proposed. According to the Bellingham Pilot Project on Individualized Marketing of Transportation Choices, “The average number of private car trips in Bellingham is 986 per year. More than 80% of that figure (782) is trips within the city limits. Forty-nine percent of trips within the city are from 0 to 3 miles from the origination location.” Such trips are ideal for cycling, and according to the aforementioned study, efforts at transportation behavior modification geared towards reducing auto transit can be highly successful.

**Alternative Action**

Instead of adding the new turn lanes and constructing the routes for a trolleybus downtown, we propose to add a Whatcom Transportation Authority Go-Line through the site and around Cornwall Avenue. The proposed route and stop locations for the trolleybus would remain the same but a WTA bus will be used instead. The bus will have fewer impacts than the trolley because it will be using the existing right-of-way streets and will not require dedicated platforms.

The impacts with keeping the existing one-way street system are significantly lower than reconstructing a two-way street system. We propose to keep the one-way street system downtown to keep the pedestrian space available on Cornwall Avenue, and maintain the flow of traffic downtown.
Because of the congestion that would be created on major downtown thoroughfares and truck routes by transitioning the existing one-way street network to a two-way street network we have given traffic in the proposed plan a (-2) rating in our decision matrix. These negative impacts would be compounded by the confusion to drivers and pedestrians a trolleybus would bring, further justifying a negative score. Without these changes we feel there would be a positive effect on transportation downtown by the inclusion of alternative modes of transportation, such as the proposed bike-share program and extending the trail network giving the traffic alternative action a rating of (1). Because we did not propose any changes to parking under the alternative action, we gave both the proposed action and the alternative action a rating of (1) in the decision matrix.

No Action

If no action is taken, the impacts downtown will remain the same and will cause no additional vehicular trips or effects on parking spaces.

4.0 Summary of Findings

The purpose of this environmental impact statement was to evaluate the proposed action for the South anchor Cornwall revitalization project, determining if there are any potential impacts that may arise from the plan, as well as to create and evaluate alternative actions. A summary of our
findings, which rates impacts based on their prominence, is found in the decision matrix. We found there to be a mitigated determination of non-significance (MDNS) for the proposed action, and a determination of non-significance (DNS) for the alternative action, as our plans in the alternative call for mitigation measures of the proposed action.

5.0 References

Tables & Figures


Figure 5- adapted from www.cob.org/services/maps/maps/utilities.aspx.

Figure 6- adapted from www.cob.org/documents/gis/maps/COB_Basins.jpg.


Primary Sources


Northwest Clean Air Agency. (2010). Section 403-particulate standards (PM2.5).


**Secondary Sources**


