



hidden lake

shoreview park

boeing creek park

"pit" parking lot

shoreline community college

boeing creek
greenwood parking lot
carlyle hall rd nw

innis arden way

nw innis arden way

highland terrace elementary school

n 160th st

greenwood ave n

dayton ave n

dayton ave n

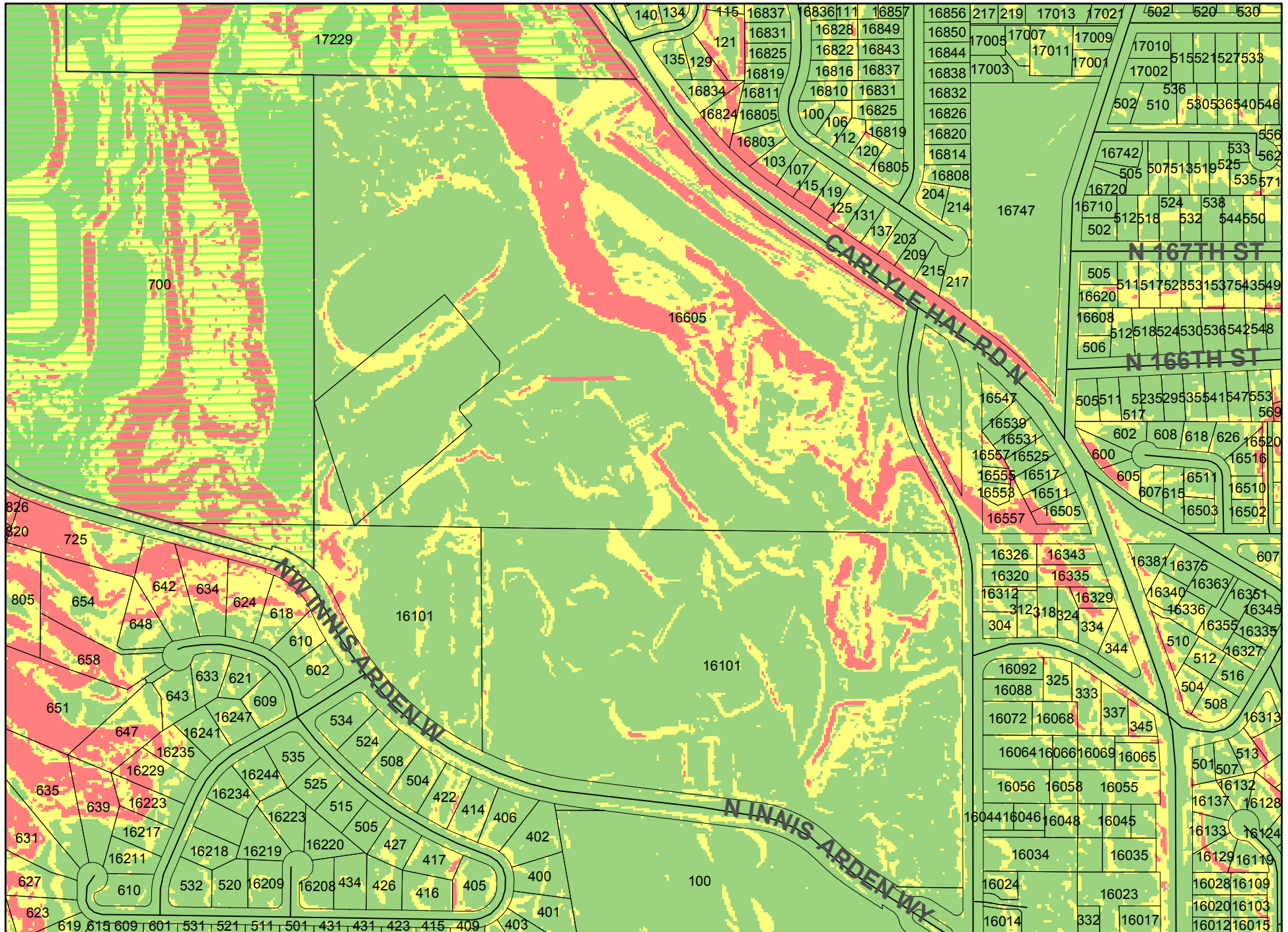
hermont ave n

shorewood high school

richmond highlands park

aurora ave n

sears parking lot
aurora square shopping center

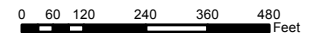


Legend

Slope (percent), LiDAR 2000/2001	<VALUE>		15.01 to 40 percent
		0 - 15 percent	
		40.01 to 100 percent	

No warranties of any sort, including accuracy, fitness, or merchantability, accompany this product.

This product will be completed in 2003.



Date: October, 2002

**Critical Areas Reconnaissance Report
Shoreline Community College
16101 Greenwood Ave. North
Shoreline, Washington**

**September 30, 2009
Revised January 13, 2011**

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EXECUTIVE SUMMARY

In conjunction with development of the Shoreline Community College Master Plan, Touchstone EcoServices (TES) conducted a critical area reconnaissance on and adjacent to the college property located at 16101 Greenwood Avenue North in the City of Shoreline, Washington. The reconnaissance, conducted on September 2, 3, and 11, 2009, discovered five wetlands, two streams, and fish and wildlife habitat conservation areas on the college property. All of these critical areas occur within the forests surrounding the existing developed campus.

Because this was a reconnaissance, none of the critical areas were flagged in the field. However, hand sketched drawings were prepared showing the approximate extent and location of each of these areas. More formal studies of these areas would be needed to determine their exact boundaries if development is proposed in the vicinity of a critical area. In addition, steep slopes areas were identified using the topographic survey of the campus.

Two wetlands are located in close proximity to each other on Boeing Creek, just east of the dam. Approximately 1,000 to 1,500 square-ft. in size, these are palustrine, unconsolidated bottom, depressional wetlands with a narrow ring of emergent vegetation around the edges and a small patch of willow on the north edge. The other three wetlands are located at the bottom of a north-south trending, steep-sided ravine located on the east side of the college in the vicinity of building 800. Ranging in size from approximately 180 to 770 square-ft., they occur within shallow basins along the unnamed stream that flows through the bottom of the ravine. Two of these wetlands are palustrine, scrub-shrub, depressional wetlands that support a small, dense thicket of salmonberry. The third wetland is palustrine, scrub-shrub, depressional that supports a western red cedar and a few salmonberry.

All of the wetlands are rated as Type III because they are less than one acre in size and are not hydrologically isolated. The City typically assigns a 35- to 65-ft. buffer width to Type III wetlands depending on the adjacent land use. City code does allow for buffer reduction or buffer averaging under certain conditions; one of which is enhancement of the remaining buffer.

Boeing Creek flows east to west within a ravine south of Carlyle Hall Road and an unnamed stream flows south to north through the steep-sided ravine where three of the wetlands were found. The unnamed stream empties into Boeing Creek near the northeast corner of the college. Both are intermittent streams that rely on stormwater runoff from piped systems for hydrology. They are separated from the naturally flowing reaches of Boeing Creek due to the dam and catch basin built in 1983 at the northwest corner of the college to control downstream stormwater flows. Neither the on-campus Boeing Creek reach or the unnamed creek support resident or anadromous fish because of the dam and because the upstream drainage basin's urban hydrology generates ephemeral conditions throughout the year.

Both the on-campus reach of Boeing Creek and the unnamed stream are rated as Type III due to intermittent flow, channels that are at least 2-ft. wide and lack of salmonid habitat. Type III streams are typically assigned a 35- to 65-ft. buffer width depending on the adjacent land use. This information has been confirmed by a City of Shoreline Qualified Stream Biologist in GeoEngineers' *Stream Reconnaissance Memorandum* dated January 10, 2011 (see Appendix C of the Campus Master Drainage Plan). City code does allow for stream buffer reduction or buffer averaging under certain conditions; one of which is enhancement of the remaining buffer.

An offsite stream, identified by the city's critical area maps, is located within the ditch on the south side of NW Innis Arden Way. It is rated as Type IV due to intermittent flow in a channel that is less than 2 ft. wide and lacks salmonid habitat. The City typically assigns a 25- to 35-ft. buffer width to Type IV streams depending on the adjacent land use. Because of its narrow buffer, this offsite stream would not affect improvements at the college.

Most of the forest habitat on campus meets the City's definition for fish and wildlife habitat conservation areas due to the presence of pileated woodpeckers, which are designated as a priority species by the Washington State Department of Fish and Wildlife (WDFW). While no standard buffers are assigned to these areas, the City may require a habitat management plan by a qualified biologist and will review recommendations made by WDFW. Currently, WDFW does not recommend buffers on habitat for this species. Instead, they recommend retaining and preserving habitat features such as snags, decaying live trees, downed large woody debris, and large stumps. The city does allow low impact uses in fish and wildlife conservation areas when it does not interfere with habitat integrity.

Steep slopes occur onsite and a figure was prepared using the current topographic map of the college. During the field reconnaissance, TES found that in a few areas with heavy tree cover on the eastern steep slopes, there were areas of relatively level benches present under the tree canopy. The steep slopes figure does not show the level benches; their location and extent would need to be determined by topographic field survey if and when development is proposed in the vicinity of the steep slopes. TES has not evaluated geologic hazards at the college. A geologic hazard evaluation was completed by GeoEngineers in the *Preliminary Geotechnical Services Report* dated October 19, 2009 (see Appendix C of the Campus Master Drainage Plan). GeoEngineers' report addresses geologic critical areas and an evaluation of critical area exemption for small steep slopes. Any proposed new improvements near steep slopes would need a geotechnical evaluation to determine whether critical areas will be affected.

Because most of the campus improvements proposed under the Long Range Development Plan (LRDP) will occur only within the existing developed campus and the Greenwood parking lot, the LRDP is not expected to have adverse impacts on the steep slopes, wetlands, streams or their buffers identified in this report, given the location of these critical areas within the undeveloped forests. Potential impacts and/or benefits of the LRDP in relation to streams and geologic hazard areas are discussed in

GeoEngineers' *Stream Memorandum and Preliminary Geotechnical Services Report* (Appendices D and C, respectively in the Campus Master Drainage Plan). Impacts and/or benefits to wetlands and fish and wildlife habitat conservation areas are discussed below.

No wetlands or their buffers will be affected by the LRDP. In addition, the stormwater and detention ponds are expected to benefit Wetlands D and E. By attenuating stormwater flows and improving water quality in Boeing Creek, the ponds will reduce the depth and duration of flooded that the wetlands currently experience and will reduce pollutants in the wetlands.

While several narrow, degraded forest corridors will be lost due to implementation of the LRDP, no adverse impacts to pileated woodpeckers or to wildlife in general. Wildlife in all life stages is expected to use the large areas of undisturbed, mature forest that surrounds the campus. In addition, because steep slopes, streams and wetlands occur throughout these forests, critical area code at the local, state and federal levels will severely limit, if not prohibit, development of the forests over the long-term; ensuring that these areas will remain available to wildlife.

It is important to note that other agencies besides the City of Shoreline may assert jurisdiction over critical areas and compliance with any one agency does not automatically satisfy compliance with any other regulatory agency. For instance, impacts to wetlands are also regulated by the U.S Army Corps of Engineers and the Washington State Department of Ecology. These agencies also regulate stream impacts, as does the Washington State Department of Fish and Wildlife. As projects under the LRDP are implemented, it will be important to check the current critical area code of regulating agencies.

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1.0 INTRODUCTION

This report has been prepared at the request of Schacht-Aslani Architects to provide information on critical areas at the Shoreline Community College (college) in conjunction with development of the campus Master Plan. The college property is located at 16101 Greenwood Avenue North in the City of Shoreline, Washington (see Figure 1) and consists of approximately 83 acres of developed and undeveloped land. The purpose of this reconnaissance is to 1) identify and describe critical areas present at the college, as defined in the Shoreline Municipal Code Chapter 20.80: Critical Areas, 2) prepare a hand sketch of the approximate extent and location of any critical areas, and 3) prepare a critical areas report in support of the master plan.

The study area consists of the developed campus, the forests that surround the campus, and offsite areas within 150 ft. of the college property. Offsite areas were included in this investigation to determine whether critical areas located outside the college have buffers that extend onto the college property.

As part of this critical area investigation, public domain documents were reviewed prior to the site visit; including aerial photographs, soils mapping, wetland and stream mapping and a topographic drawing. On September 2, 3 and 11, 2009, Touchstone EcoServices (TES) conducted the field reconnaissance by walking the landscaped areas within the developed campus and the surrounding forests to locate any critical areas and document existing conditions. Adjacent areas within 150 ft. of the college property were evaluated using public domain documentation only.

Critical areas identified during this investigation include steep slopes, wetlands, streams, and fish and wildlife habitat conservation areas. TES did not evaluate the college for geologic hazard areas as this assessment should be done by a certified geotechnical engineer or licensed geologist. Because this was a reconnaissance, critical areas were not flagged or otherwise marked in the field. Instead, the approximate location and extent of identified critical areas were hand sketched on base maps of the college property and are included in the appendices of this report.

2.0 EXISTING CONDITIONS

Undeveloped forest, including the Boeing Creek Easement that is managed by the City of Shoreline, makes up nearly half of the 83-acre college property. To organize information about the forested areas, they were broken into seven separate habitat areas (Appendix 1) based on relatively homogenous topography and plant communities.

The existing conditions in the developed and undeveloped areas of the campus are described briefly below. For each forest habitat area, a complete listing of vegetation is provided in Appendix 1. Photographs of each forest area are presented in the Photographs section at the end of the report.

The Developed Campus includes buildings, walkways, parking lots, roads, and landscaped areas. Landscaping includes maintained lawns and planted strips of trees and shrubs throughout the campus. The vegetation in the landscaped areas includes a mixture of both ornamental and native plants.

The West Forest is located in the northwest corner of the campus. This area has hilly and gently rolling terrain. Because of the easy access to this forest, there are numerous wide trails that criss-cross the entire area. The forest is comprised of a Douglas fir/Pacific madrona/western red cedar community that is dominated by conifers and has a closed canopy. While the western-most portion of this forest does support a well-developed mid-level understory, this structural layer is lacking in most of the forest. There is a dense low-growing understory of salal and swordfern throughout this area. In addition, there is a narrow band of shrub-only habitat along the west side of the oval track that is dominated by Himalayan blackberry, evergreen blackberry and scotch broom.

The North Forest is located on a steep, northeast-facing slope that is bounded by the developed campus to the south and the Greenwood Avenue parking lot to the north. This Douglas fir/Pacific madrona/western red cedar forest has a very similar plant community as the West Forest. However, because the steep slopes discourage human access, there are few trails and the mid-level and low-level understory layers are both well developed.

The Boeing Creek Easement is located primarily within the managed and maintained Boeing Creek reach. This area is bounded by Carlyle Hall Road to the north and by the Greenwood Avenue parking lot to the south. This fenced area includes the creek and adjacent riparian vegetation, and includes the unfenced area at the east end of the parking lot. A well-maintained access road is located along the south side of the creek and separates it from the southern riparian forest. This area has a big-leaf maple/western red cedar plant community with a dense canopy. Salal and oceanspray dominate the understory layer.

The Northeast Forest is located to the east of Greenwood Avenue and is situated on level ground. This is a Douglas fir/big-leaf maple/western red cedar forest with a nearly closed canopy. This area has a few animal trails through it, but does not appear to be used extensively by humans. The relatively open understory is dominated by salal. While there are numerous Sitka spruce snags in this forest; no live spruce trees were observed.

The East Forest surrounds the music building (building 800). To the east of the building the forest slopes gently to the north and east and is dominated by a closed canopy of big-leaf maple and very dense understory of salal. To the west of the building, this habitat area is dominated by a steep-sided

ravine with an open canopy of western red cedar/big-leaf maple/ Pacific madrona. The hillside, riddled with mountain beaver dens, supports a sparsely growing understory dominated by snowberry, Indian plum, and swordfern.

The Nature Preserve is the area just east of the main entrance to the college. This area was dedicated in 1973 by the College Board of Trustees as a nature preserve to remain in a natural state in perpetuity. It has four distinct habitat types including 1) a western red cedar grove with little to no understory or groundcover, 2) a bitter cherry/salmonberry forest, 3) a bitter cherry/swordfern forest, and 4) an open-canopy Douglas fir/western red cedar/big-leaf maple forest that is similar to the plant community in the Western Forest. This area has a steep-sided ravine along its western edge.

The Southwest Forest is located at the southwest corner of the college property and is bisected by several parking lots. Big-leaf maple dominates this forest with a relatively open understory of primarily salal and oceanspray.

3.0 CRITICAL AREAS

Critical areas identified during the September site reconnaissance include wetlands, streams, fish and wildlife habitat conservation areas and geologic hazard areas. All of the critical areas occur within one or more of the forest habitat areas. There are no critical areas in the developed portion of the campus. Each of the critical areas identified during the site reconnaissance is described below.

3.1 Wetlands

Methods

Public domain documents reviewed prior to the site visit included the Washington State Department of Ecology's *Digital Coastal Atlas* (Ecology 2009), the City of Shoreline's *GIS Critical Area Map* (provided by Eric Gilmore on September 9, 2009), and the *Boeing Creek Basin Characterization Report* (Tetrattech/KCM 2003). None of these resources showed wetland habitat occurring on or within 150 ft. of the college property. Soil types on the college property are mainly Alderwood gravelly sandy loam with minor amounts of Everett gravelly sandy loam and Everett gravelly loamy sand (USDA 1952); all are non-hydric soils (NRCS 2009). These soils do have Norma fine sandy loam, a hydric soil, as a minor component.

The site reconnaissance by TES was done on September 2 and 3, 2009 using the *Washington State Wetland Identification and Delineation Manual* (Ecology 1997). The routine determination was used because the site has a homogeneous vegetation, soil, and hydrologic regime. Vegetation, soil, and hydrologic conditions were investigated at five locations that exhibited wetland characteristics. An area was determined to be wetland where the following three parameters were met: 1) the dominant plant

species were considered hydrophytic by the U.S. Fish and Wildlife Service (Reed 1998, revised 1993); 2) soils were considered hydric under federal definition; and 3) hydrologic conditions meeting the modified federal wetland definitions were present or inferred.

Since the September 2009 reconnaissance was conducted, the official U.S Army Corps of Engineers wetland methodology has been updated with the newly adopted *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (May 2010). This methodology diverges from the *Washington State Wetland Identification and Delineation Manual* in the way that soils are evaluated for the presence of wetland characteristics. However, this divergence is not expected to change the extent of wetland habitat identified onsite.

Of note, wetland hydrology was not present in any of the wetlands during the site reconnaissance. This is a typical situation in western Washington wetlands for this time of year. While wetland hydrology in these areas was assumed based on the presence of indicators that are often used to determine whether wetland hydrology is present earlier in the growing season, a formal wetland delineation during the early growing season would determine the full extent of wetland hydrology. Because this was a reconnaissance, wetlands were not flagged. Instead, a hand sketch was prepared that shows the approximate location and extent of identified wetlands.

Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al 1979) was used to define the habitat type of each wetland. The *Washington State Wetland Rating System for Western Washington – Revised* (Hruby 2004) was used to define the hydrogeomorphic classification for each wetland, and the Shoreline Municipal Code (SMC) 20.80.320 was used to rate the wetlands and determine their buffers.

Reconnaissance Results

Five small wetlands were identified on the college property. Photographs of each wetland are presented at the end of the report, following the vicinity map. Appendix 2 provides a hand sketch of the approximate location and extent of the wetlands. No offsite wetlands were identified within 150 ft. of the college property.

Wetland A is located within the steep-sided, north-south trending ravine on the east side of the college property, near the main entrance to the campus. This approximately 770 square-ft. area is a palustrine, scrub-shrub, depressional wetland that is located along the unnamed stream that flows through the ravine. Situated in a shallow bowl-shaped basin, densely-growing salmonberry dominates this wetland with no groundcover layer. Soils are a black (10YR 2/1) sandy gravelly loam. Hydrology for the wetland appears to come from precipitation, groundwater and runoff from the adjacent slopes, and water from the stream. While no hydrology was present at the time of the site visit, other more persistent

indicators were used to determine whether wetland hydrology is present earlier in the growing season. Indicators observed in this wetland included drainage patterns, drift lines and concave topography.

Wetland B is located in the same ravine to the north of Wetland A, near the music building (Building 800). This approximately 375 square-ft. area is a palustrine, scrub-shrub, depressional wetland is situated in a shallow, bowl-shaped basin. Densely-growing salmonberry dominates this wetland with no groundcover layer. Soils are a very dark gray (2.5YR 3/1) sandy gravelly loam. Hydrology for the wetland appears to come from precipitation, groundwater and runoff from the adjacent slopes, and water from the stream. While no hydrology was present, indicators of wetland hydrology observed in this wetland included drainage patterns, drift lines, concave topography and bare ground.

Wetland C is also located in the same ravine to the north of Wetland B, near the music building (Building 800). This approximately 180 square-ft. area is a palustrine, forested, depressional wetland. Situated in a shallow bowl-shaped basin, one western red cedar and a few salmonberry grow in this wetland with no groundcover layer. Soils are a very dark gray (2.5YR 3/1) sandy gravelly loam. Hydrology for the wetland appears to come from precipitation, groundwater and runoff from the adjacent slopes, and water from stream. While no hydrology was present, hydrologic indicators observed in this wetland included drainage patterns, drift lines, concave topography and bare ground.

Wetland D is located at the west end of the Boeing Creek reach on the college property. This approximately 1,500 square-ft. area is a palustrine, unconsolidated bottom, depressional wetland located within Boeing Creek just before it reaches the flood gate. The wetland is primarily unvegetated; with open water that varies from 1 in. to 1 ft. in depth. The perimeter of the wetland is ringed by equal parts of lady's thumb knotweed, reed canarygrass, and creeping buttercup; all together providing about 10 percent cover. Soils are a black (10YR 2/1) gravelly silty sand with the upper profile comprised of partially decomposed organics. Hydrology for the wetland appears to come from precipitation, groundwater and runoff from the adjacent slopes, and water from the stream.

Wetland E is located just west of Wetland D within the Boeing Creek drainage. It is separated from Wetland D by a slightly raised area of rip-rap. This approximately 1,000 square-ft. area is a palustrine, unconsolidated bottom, depressional wetland located within the creek just east of the flood gate. The wetland is primarily unvegetated; with open water that varies from 1 in. to 1 ft. in depth. The perimeter of the wetland is ringed by equal parts of lady's thumb knotweed, reed canarygrass, and American brooklime; all together providing about 25 percent cover. Soils are a black (10YR 2/1) gravelly silty sand with the upper profile comprised of partially decomposed organics. Hydrology for the wetland appears to come from precipitation, groundwater and runoff from the adjacent slopes, overflow from Wetland D, and water from the stream.

A small, approximately 400 square ft., plastic-lined pond that supports wetland vegetation (cattail and buckbean) is located in the courtyard of Building 2400 in the developed portion of the campus. This area is artificially created in upland and is artificially maintained via a hose from a nearby spigot. While there is wetland vegetation present, there are no wetland soils or wetland hydrology. Thus, this is not a jurisdictional wetland.

3.1.1 Wetland Regulatory Implications

All of the identified wetlands meet the definition for Type III wetlands per SMC 20.80.320 because they are all less than one acre in size, are not hydrologically isolated and have one wetland class. Even though Wetlands D and E occur within the created stormwater detention area within Boeing Creek, they are still considered to be jurisdictional wetlands. Only stormwater ponds that were excavated in areas that were previously uplands are not defined as wetland.

The City typically assigns a 35- to 65-ft. buffer width for Type III wetlands, depending on the adjacent land use (SMC 20.80.330). The land use associated with the college – parking lots, roads, and human use – are usually considered to be high impact uses and require a larger buffer width. City code does allow for buffer reduction or buffer averaging under certain conditions; one of which is enhancement of the remaining buffer. It should also be noted that the wetlands drawn in Appendix 2 show the estimated location of the wetland boundaries. Formal wetland delineation would need to be done to determine the exact wetland edge if a new project was to be proposed in the vicinity of the wetlands and their buffers.

In addition, other agencies may assert jurisdiction over the wetlands. The U.S Army Corps of Engineers (Corps) regulates all hydrologically connected wetlands no matter how small they are. The Corps regulates only impacts to wetlands (both direct and indirect) and does not regulate impacts to wetland buffers. The Washington State Department of Ecology (Ecology) may assert jurisdiction in two cases: 1) if the Corps does not assert jurisdiction; and 2) if a Section 401 water quality certification required for the project. Ecology regulates direct and indirect impacts to wetlands and also regulates impacts to wetland buffers.

3.2 Streams

Methods

Public domain documents reviewed prior to the site visit included the Washington State Department of Ecology's *Digital Coastal Atlas* (Ecology 2009), the City of Shoreline's *GIS Critical Area Map* (provided by Eric Gilmore on September 9, 2009), and the *Boeing Creek Basin Characterization Report* (Tetrattech/KCM 2003). Boeing Creek was shown by all three of these

resources. In addition, the City GIS map and the *Boeing Creek Basin Characterization Report* show an offsite stream along the south side of NW Innis Arden Way.

Onsite streams in this report were defined in SMC 20.20.46 as those areas “where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used by salmonids or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water year-round; provided that there is evidence of at least intermittent flow during years of normal rainfall.”

Because this was a reconnaissance, the ordinary high water mark on the streams was not flagged. Instead, a hand sketch was prepared that shows the approximate location of identified streams. Streams were rated using SMC 20.80.470.

Since the original date of this report, a City of Shoreline Qualified Stream Biologist has confirmed the information provided below in GeoEngineers’ *Stream Reconnaissance Memorandum* dated January 10, 2011 (see Appendix C of the Campus Master Drainage Plan) (GeoEngineers 2011).

Reconnaissance Results

Two streams were identified on the college property and one stream was identified in the immediate vicinity of the college. Photographs of each stream are presented in the Photographs Section at the end of this report. Appendix 2 provides a hand sketch of the approximate location of the streams.

Boeing Creek is located to the south of Carlyle Hall Road. The entire main stem of Boeing Creek is approx 1.55 miles as long measured from the beginning of the identifiable channel at the outfall of the 48-inch storm drain located southwest of the Carlyle Hall Road NW/Greenwood Avenue N intersection to its confluence with Puget Sound. Upstream from the Carlyle Hall Road NW/Greenwood Avenue N culvert, the creek is contained primarily in pipes that drain a large area including commercial development.

The dam and catch basin at the west end of the Boeing Creek channel located on college property is part of a detention pond constructed in 1983 for the purpose of reducing downstream peak flows for up to the 2-yr storm event. Because of the dam, water in the on-campus reach does not contribute to the base flow of the downstream creek – water only makes it to the downstream portions of the creek during high storm events when the water in the detention pond overtops the dam and catch basin. In the absence of stormwater, base flow in Boeing Creek starts as groundwater seepage approximately 3,000 ft downstream of the dam (that is, over 2,500 ft downstream of the college property). Typically, storm runoff contributions to Boeing Creek disappear by late spring and do not reoccur until the rainy season begins in the fall. The creek was completely dry at the time of the reconnaissance.

The *Boeing Creek Basin Characterization Report* describes the creek reach on the college property as an artificial, open water course with quarry spalls that is fed by stormwater runoff from

upstream piped water courses. The site reconnaissance verified that it is a wide swale that is rip-rapped throughout its entirety. It receives water primarily from the culvert under the Greenwood Avenue N/Carlyle Hall Road NW intersection. However, the unnamed onsite stream also contributes water into the east end of Boeing Creek; most likely only during heavy storm events. The dirt and gravel parking lot within 50 ft. of the left bank and Carlyle Hall Road NW within 100 ft. of the right bank contribute sediment to this reach of the creek.

The Washington State Department of Fish and Wildlife (WDFW) have identified the on-campus reach of Boeing Creek as priority habitat. However, it is assumed that this designation was based on aerial photographic interpretation because the rip-rapped swale, lack of natural substrate and flashy hydrology in this reach cannot support resident fish and the dam and flood gate at the west end of the Boeing Easement Assessment area is a complete barrier to anadromous fish. In addition, a steel-pile dam located in the lower reaches of the creek close to Puget Sound is in disrepair and disallows any upstream fish passage due to a drop of approx 15 ft downstream of the dam.

The onsite unnamed stream is located within the north-south ravine that runs through the forest on the east side of the college. No water was present during the site reconnaissance. The stream begins at the south end of the ravine near the main entrance to the college via an 18-in. concrete culvert and flows within an incised channel, which indicates that the hydrology of the creek is very flashy. The stream flows through a series of open channels and culverts under a road, walkway, and parking lot; and eventually outlets near Boeing Creek. The channel width varies from 2- to 4-ft wide along its length. At the final culvert outlet, there is no defined channel, but the topography and vegetation indicate that the water flows overland and enters Boeing Creek near the east end of the Boeing Creek Easement area. It is likely that the natural channel was disturbed during construction of the access road along the south side of Boeing Creek. The flashy nature of the hydrology of this stream, lack of a channel near Boeing Creek and the length of the small-diameter culverts preclude it from providing habitat for resident or anadromous fish.

The offsite stream is located along the south side of NW Innis Arden Way. This stream begins southwest of 6th Avenue NW and flows within a series of pipes and a grass-lined or rock-lined ditch that is less than 2-ft. wide and without a natural substrate. The *Boeing Creek Basin Characterization Report* describes this creek reach as an artificial open water course. Eventually, this water course flows into Boeing Creek just below Hidden Lake. The flashy hydrology of this stream and lack of natural substrate preclude it from providing habitat for resident or anadromous fish.

3.2.1 Stream Regulatory Implications

Boeing Creek and the onsite unnamed creek meet the definition for Type III streams per SMC 20.80.470. They have intermittent flow in 2-ft. and wider channels and are not used by salmonids. These streams are not fish passable and do not have the potential to be fish passable due to the dam and catch basin on the college property. There are no plans to remove these structures because they provide an important stormwater detention function in the Boeing Creek basin.

The City typically assigns a 35- to 65-ft. buffer width to Type III streams, depending on the adjacent land use (SMC 20.80.480). Land uses associated with the college - parking lots, roads, and high human use – are usually considered to be high impact uses and require the larger buffer width. City code does allow for buffer reduction or buffer averaging under certain conditions; one of which is enhancement of the remaining buffer. It should also be noted that the streams shown in Appendix 2 represent the estimated location. The ordinary high water mark would need to be flagged to determine the exact stream edge if a project was to be proposed in the vicinity of the streams and their buffers.

The offsite stream is rated as Type IV because it has intermittent flow, a channel less than 2 ft. wide and is not used by salmonids. This stream is not fish passable and does not have the potential to be fish passable. The City typically assigns a 25- to 35-ft. buffer width to Type IV streams. Because of its low rating and narrow buffer, the offsite stream would not affect proposed projects at the college.

In addition, other agencies may assert jurisdiction over the streams including the Corps that regulates Waters of the US, the Washington State Department of Fish and Wildlife (WDFW) that regulates impacts to stream channels, and Ecology that regulates Waters of the State.

3.3 Fish and Wildlife Habitat Conservation Areas

Methods

Per SMC 20.80.260 and 270, Fish and wildlife habitat conservation areas are defined as those areas that “include nesting and breeding grounds for State and Federal threatened, endangered, critical or priority species listed by the WDFW, including corridors which connect priority habitat, and those areas which provide habitat for species of local significance.” During the site reconnaissance, wildlife use on the campus was observed by sighting of individuals or signs of their presence. For instance, large, square holes in snags and dying trees are made by pileated woodpeckers.

Reconnaissance Results

Pileated woodpeckers (*Dryocopus pileatus*) are identified as priority species (WDFW 2009). At the time of the first edition of this report, habitat for band-tailed pigeon, which are known to occur within the Boeing Creek watershed, was considered to be a priority habitat due to this species’ dwindling

population over a number of years. Since then, their numbers were determined to have recovered and their habitat is no longer managed as a priority habitat.

Pileated woodpeckers were observed in the Northeast Forest during the site reconnaissance and signs of pileated woodpeckers were observed the forests surrounding the developed campus. Most of the forest habitat areas shown in Appendix 1 are used by pileated woodpecker. The only exceptions are the narrow band of forest along the parking lots in the southwest corner of the college (Southwest Forest) and the narrow band of forest (West Forest) situated between the parking lots and running track. Forests at the college are identified as possible to probable breeding habitat in the *Washington Gap Analysis Program* (GAP) map for Pileated Woodpecker (WDFW 1997).

3.3.1 Fish and Wildlife Habitat Conservation Areas Regulatory Implications

The *City of Shoreline Comprehensive Plan* (City of Shoreline 2005) includes land use policy LU115 that states “Critical wildlife habitat, including habitats or species that have been identified as priority species or priority habitats by WDFW will be preserved and protected.”

Per SMC 20.80.280, buffer widths for fish and wildlife habitat areas are based on species-specific recommendations of WDFW and recommendations provided in a habitat management plan submitted by a qualified consultant. The city allows low impact uses and activities that do not detract from habitat integrity such as pervious trails, viewing platforms and bio-swales as long as impacts are mitigated. The city also typically ask for protection and preservation fish and wildlife habitat conservation areas through a permanent protective mechanism. WDFW does not recommend buffers on habitat for pileated woodpecker. Instead, they recommend retaining snags, decaying live trees, downed large woody debris, and large stumps (Lewis et. al. 2003).

3.4 Geologic Hazard Areas

Methods

The preliminary topographic survey of the college campus, prepared by Reid Middleton, Inc. (dated April 3, 2009), was reviewed to determine whether slopes at 15-percent and greater occur in the study area. Because the topography in some of the forested areas was determined by aerial survey rather than ground survey, slopes within the forests were observed during the site reconnaissance to verify slopes shown in the topographic drawing. A hand sketch of the approximate extent of steep slopes was prepared (see Appendix 3).

It should be noted that narrow bands of landslide hazard areas within the developed campus as shown in the topographic drawing were not field verified and are not shown in Appendix 3 as these areas

are engineered slopes that were assumed to have been previously permitted by the City during campus development.

Reconnaissance Results

Site reconnaissance found that the topographic drawing for slopes in the forests was reasonably accurate. The only area that deviated between the drawing and what was observed on the ground occurred in the North Forest where a relatively flat bench located midway down the slope was not shown. This level of deviation is typical of those present in aerial surveys.

As represented in the topographic drawing, slopes between 15- and 24-percent are present in the Alderwood and Everett soils at the college (see Appendix 3). These slopes occur on the hillside located between the developed campus and the Greenwood Avenue parking lot, the hillside in the southwest corner of the college to the southwest of building 2000, within the ravine that runs through the eastern forest adjacent to Greenwood Avenue, along both banks of Boeing Creek, and two narrow bands around the running track on the west side of the campus.

MC 20.80.220 defines three different geologic hazard areas: Landslide Hazard Areas, Seismic Hazard Areas, and/or Erosion and Sedimentation Hazards. The areas shown in Appendix 3 meet the definition for Moderate Landslide Hazard Areas with slopes between 15 percent and 40 percent that are underlain by soils that consist largely of sand, gravel or glacial till. In addition, the Alderwood and Everett Soils with 15-percent or greater slopes meet the City's definition for Erosion Hazard areas. TES did not evaluate potential geologic hazard areas on the college because that assessment should be done by a certified geotechnical engineer or licensed geologist. A geologic hazard evaluation was completed in the *Preliminary Geotechnical Services Report* (GeoEngineers 2009) (see Appendix C in the Campus Master Drainage Plan). Their report addresses geologic critical areas including steep slopes, landslide hazard areas, seismic hazard areas, and their buffer widths. GeoEngineers' report also provides an evaluation of critical area exemption for small steep slopes. Any proposed new improvements located near steep slopes would need to be evaluated by a geotechnical engineer to determine what, if any, impacts would affect critical area slopes.

3.4.1 Geologic Hazard Areas Regulatory Implications

The City typically assigns a standard buffer of 50 ft. to moderate landslide hazard areas (SMC 20.80.230 and 240). However, the buffer may be reduced to a minimum of 15 ft. based on the City's review of recommendations made by a qualified consultant in a geotechnical report. In addition, a temporary erosion and sediment control plan, including re-vegetation, is required on any site containing erosion hazard areas.

4.0 CRITICAL AREA SUMMARY

The September 2009 reconnaissance discovered five wetlands, two streams, fish and wildlife habitat conservation areas, and steep slopes at Shoreline Community College. All of the critical areas occur in the surrounding forests; none occur within the developed campus. None of the critical areas were flagged in the field. While hand sketched drawings were prepared showing the approximate extent and locations of each of these areas, formal studies of these areas would be required to determine their exact boundaries and locations if and when development is proposed in the vicinity of a critical area.

As of January 10, 2011, the Long Range Development Plan (LRDP) is proposing to replace existing buildings and add a few new buildings within the developed campus. A new stormwater detention and treatment pond will be constructed as projects are implemented and will be located within the Greenwood parking lot situated between the Boeing Creek Easement Area and the North Forest.

Because most of the campus improvements proposed under the Long Range Development Plan (LRDP) will occur only within the existing developed campus and the Greenwood parking lot, the LRDP is not expected to have adverse impacts on the steep slopes, wetlands, streams or their buffers identified in this report, given the location of these critical areas within the undeveloped forests. Potential impacts and/or benefits of the LRDP in relation to streams and geologic hazard areas are discussed in GeoEngineers' *Stream Memorandum* and *Preliminary Geotechnical Services Report* (Appendices D and C, respectively in the Campus Master Drainage Plan). Impacts and/or benefits to wetlands and fish and wildlife habitat conservation areas are discussed below.

No wetlands or their buffers will be affected by the LRDP. In addition, the stormwater and detention ponds are expected to benefit Wetlands D and E. By attenuating stormwater flows and improving water quality in Boeing Creek, the ponds will reduce the depth and duration of flooded that the wetlands currently experience and will reduce pollutants in the wetlands.

There are several narrow corridors of forest proposed to be removed in order to provide additional parking. One occurs in the Southwest Forest along the southwest campus boundary and two occur in the West Forest along the edges of the existing running track. These narrow corridors extend into areas that are currently affected by urban impacts associated with the adjacent parking lot and recreation. Surrounded by high urban use, these corridors are degraded and do not provide high quality wildlife habitat for nesting or feeding. While birds and small mammals may use these areas for feeding and roosting, the adjacent intact forests at the college that are connected to the larger Boeing Creek habitat corridor are preferred by wildlife during all stages of their life due to the lack of disturbance and higher quality habitat they provide. The loss of the narrow corridors due to LRDP implementation will not inhibit migration along the Boeing Creek habitat corridor and no adverse impacts are expected to

pileated woodpeckers, which prefer mature forests, nor to wildlife in general. In addition, because steep slopes, streams and wetlands occur throughout the remaining forests, critical area code at the local, state and federal levels will severely limit, if not prohibit, development of the forests over the long-term; ensuring that these areas will remain available to wildlife.

Over time, changes in government code, regulations, and/or laws regulating critical areas do occur. Therefore, as projects under the LRDP are implemented, it will be important to check the current critical area code of regulating agencies. In addition, critical areas tend to be dynamic systems and their boundaries may change over the long-term.

The City of Shoreline has specific requirements for each critical area pertaining to buffers, compensatory mitigation for impacts to critical areas or their buffers, and/or preservation via a permanent protective mechanism. Impacts to wetlands are also regulated by the U.S Army Corps of Engineers and the Washington State Department of Ecology. These agencies also regulate stream impacts, as does the Washington State Department of Fish and Wildlife.

Compliance with any one agency does not automatically satisfy compliance with any other regulatory agency. Authorization for work in and adjacent to wetlands and streams must be obtained from all the appropriate regulating agencies.

6.0 Use of this report

This report was prepared for the exclusive use of Schacht-Aslani Architects and the Shoreline Community College, and their specific application to the development of the college Master Plan and Long Range Development Plan. The use by others, or for purposes other than intended, is at the user's sole risk. The findings presented herein are based on Touchstone EcoServices' understanding of the City of Shoreline's critical area code and critical area maps, the draft topographic map of the college, the Department of Ecology's wetland delineation methodology and our interpretation of the vegetative, soil, and hydrology conditions observed during the September 2009 site visit. Within the limitations of scope, schedule, and budget, the findings in this report were prepared in accordance with generally accepted sensitive area reconnaissance investigation principles and practices in this locality at the time the report was prepared. Touchstone EcoServices makes no other warranty, either express or implied.

Signed:



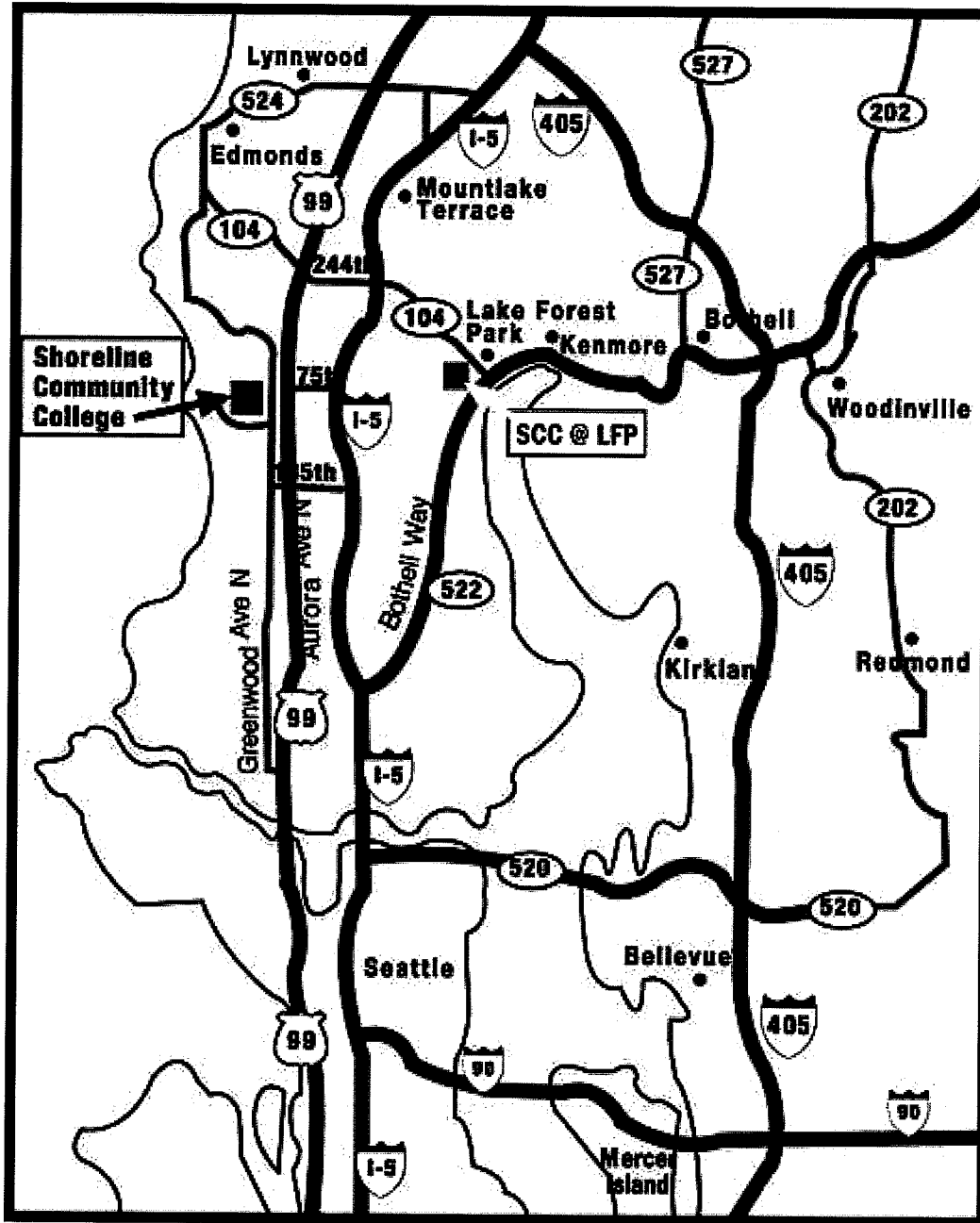
Diane Brewster

Professional Wetland Scientist, Society of Wetland Scientists cert. # 1721

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Not to Scale

Source: <http://www.shoreline.edu/collegemaps2.aspx>



<p>TES TOUCHSTONE ECOSERVICES</p>	<p>Shoreline Community College Critical Areas Reconnaissance Shoreline, WA</p>	<p>VICINITY MAP</p>	<p>Figure 1</p>
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PHOTOGRAPHS

**Shoreline Community College
Critical Area Reconnaissance**





Photo 1: Typical plant community in West Forest



Photo 2: Typical Plant community in North Forest



Photo 3: Typical plant community in Boeing Creek Easement



Photo 4: Typical plant community in Northeast Forest



Photo 5: Typical Plant Community in East Forest



Photo 6: Bitter cherry/swordfern community in Nature Preserve

Shoreline Community College
Critical Area Reconnaissance 2009

1

Touchstone EcoServices



Photo 7: Bitter cherry/salmonberry community in Nature Preserve



Photo 8: Western red cedar grove in Nature Preserve



Photo 9: Southwest Forest – typical narrow portion bisected by parking lots.



Photo 10: Typical plant community in undisturbed Southwest Forest



Photo 11: Wetland A



Photo 12: Wetland B



Photo 13: Wetland C substrate around western red cedar



Photo 14: Wetland D



Photo 15: Wetland E

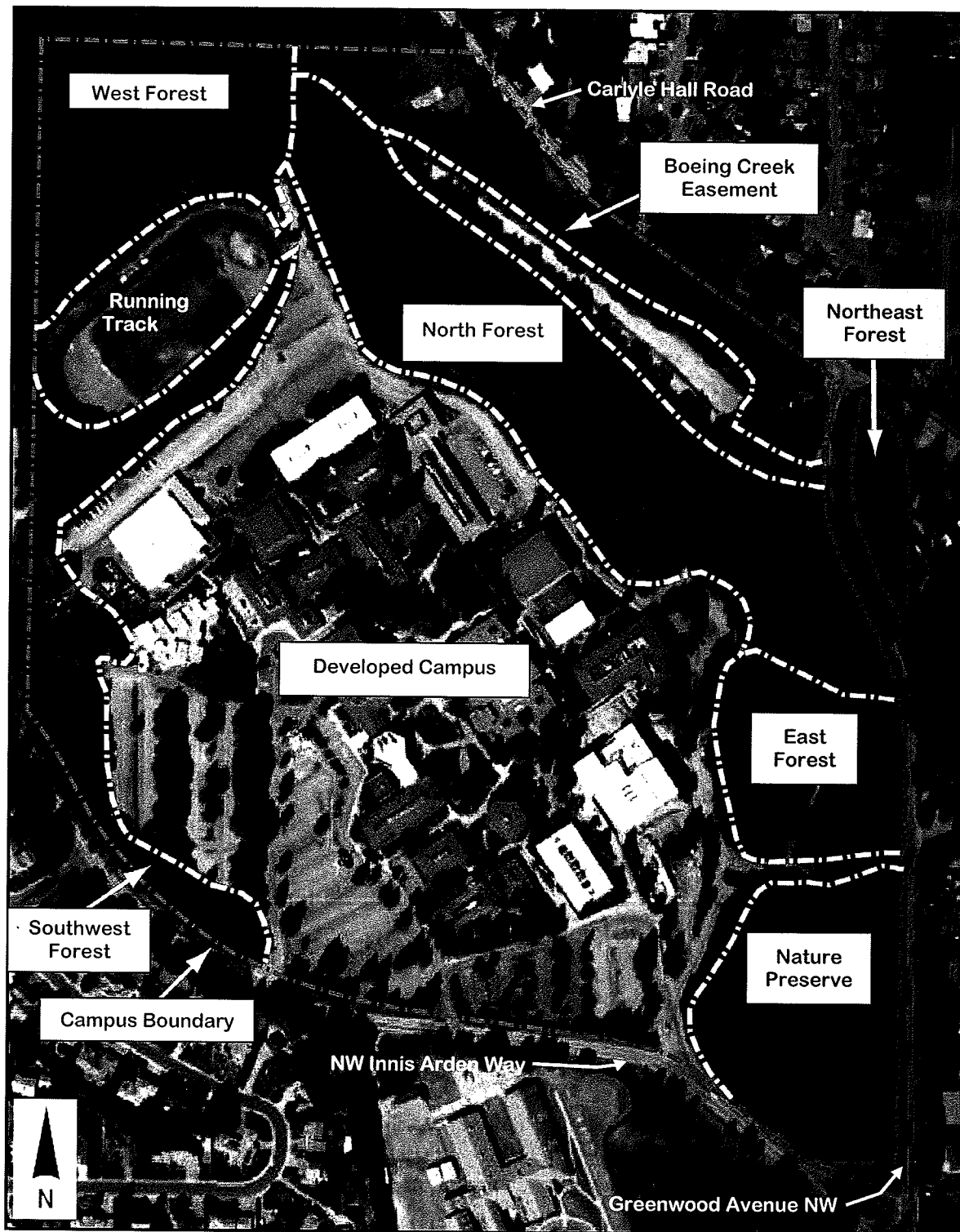


Photo 16: Boeing Creek (typical)



Photo 17: Unnamed Creek bed (typical)

Appendix 1: Habitat Areas Map Shoreline Community College



Source: Base map from Schacht Aslani Architects

Appendix 1 - Plant Community by Habitat Area
Shoreline Community College

Vegetation	Habitat Areas:											
	Wetland A	Wetland B	Wetland C	Wetland D	Wetland E	West Forest	North Forest	Northeast Forest	East Forest	Southwest Forest	Boeing Creek Easement	Nature Preserve
Common name	Scientific name											
Trees												
big-leaf maple						X	X*	X*	X*	X*	X*	X
bitter cherry						X	X	X	X	X		X*
black cottonwood												X
black poplar												
cascara												
common hawthorne ³												
Douglas fir						X*	X*	X*	X			X*
Douglas hawthorne						X	X	X	X	X		X
European mountain ash ³						X	X	X	X			X
grand fir												X
Pacific madrona						X*	X	X	X	X		X
red alder						X	X	X	X	X		X
scouler willow										X	X	X
western hemlock						X	X	X	X	X		X
western red cedar						X*	X*	X*	X*	X*		X*
western white pine						X	X	X	X	X		X
Shrubs												
black-cap raspberry						X	X	X	X			
Indian plum						X	X	X	X			
dull Oregon grape						X	X	X	X	X		X
evergreen huckleberry						X	X	X	X			
oceanspray						X	X	X	X	X*		X
red elderberry						X	X	X	X	X		X
red huckleberry						X	X	X	X			X
red-twig dogwood												
salal						X*	X*	X*	X*	X*		X*
salmonberry						X*	X	X*	X*	X*		X*
serviceberry												
Sitka willow												
small fruit rose						X	X	X	X			X

Appendix 1 - Plant Community by Habitat Area
Shoreline Community College

Plant Species	Habitat Areas:											
	Wetland A	Wetland B	Wetland C	Wetland D	Wetland E	West Forest	North Forest	Northwest Forest	East Forest	Southwest Forest	Boeing Creek Easement	Nature Preserve
Shrubs, continued												
snowberry												X
thimbleberry						X						X
vine maple									X			
western crabapple						X						
western hazelnut						X	X	X			X	X
						X	X	X				
Ground Cover												
American brooklime											X	
annual rye					X*							
bracken fern						X	X	X				X
black medic										X		
Canada bunchberry						X						
colonial bentgrass					X						X*	
common dandelion										X		
common velvetgrass											X	
creeping buttercup ³											X*	
curly dock						X*					X	
English Plantain												
fireweed									X			
foxglove										X		
fairy cat's ear										X		
lady fern												
lady's-thumb knotweed												
large-leaved avens						X	X*			X		
meadow foxtail												X
orchardgrass												X
Oregon Bentgrass											X	
perennial sow-thistle											X	
red clover											X	
small-flowered wood-rush											X	
St. John's wort									X		X	
stinging nettle											X	
Urtica dioica											X	

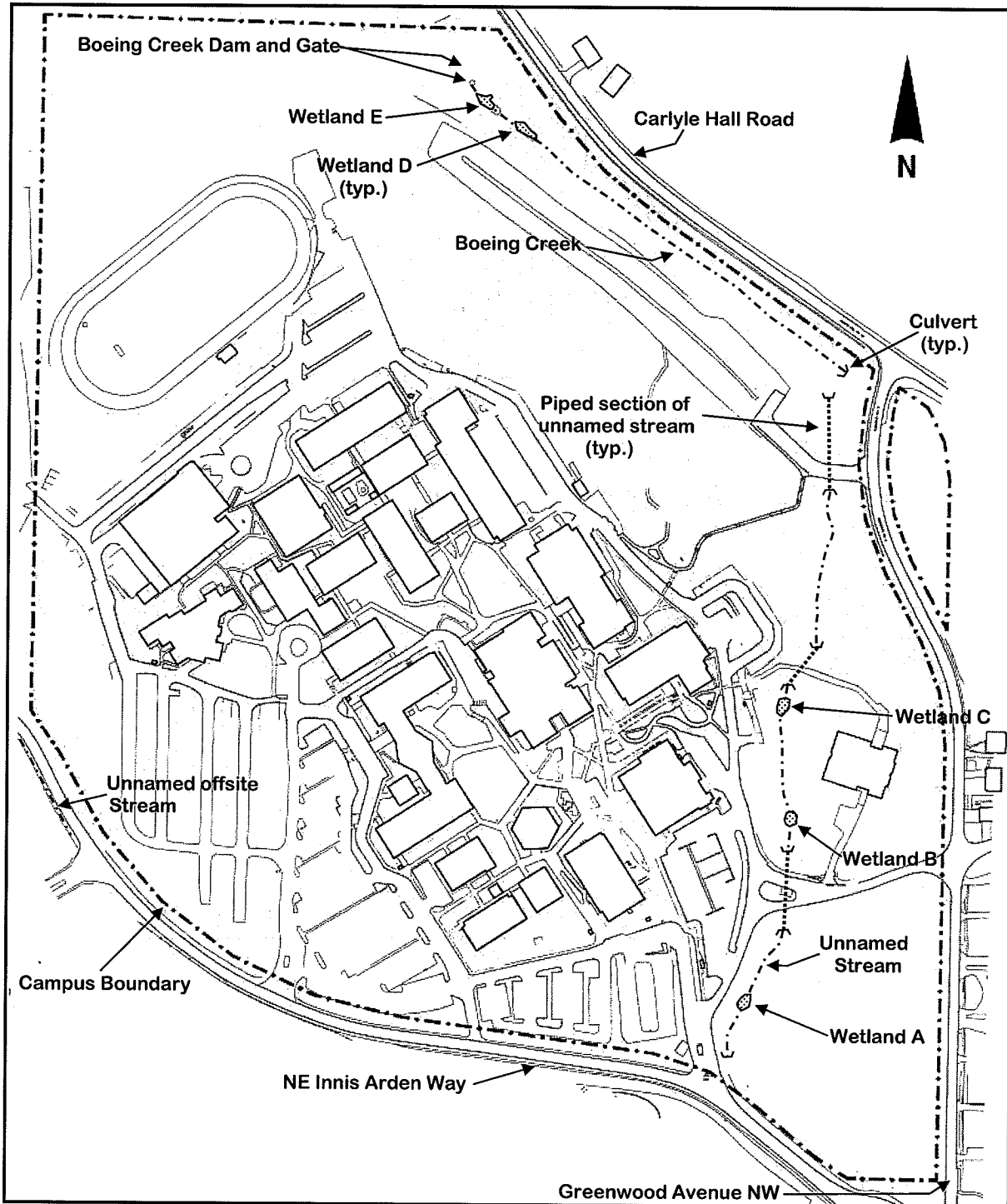
Appendix 1 - Plant Community by Habitat Area
Shoreline Community College

	Habitat Areas:										
	Wetland A	Wetland B	Wetland C	Wetland D	Wetland E	West Forest	North Forest	East Forest	Southwest Forest	Boeing Creek Easement	Nature Preserve
Ground Cover, continued											
stinky robert					X	X	X	X	X	X	X
sword fern					X*	X*	X	X*	X*	X*	X*
tall fescue											
three-leaf foamflower						X					X
trailing blackberry					X	X	X*			X	X*
white clover											
white sweetclover					X						
Watsons willowherb										X	X
western dock										X	
wood groundsel									X		X
Invasive Species											
butterfly bush ³										X	
English holly ³					X	X	X			X	X
English ivy ³					X	X	X	X		X	X
English laurel ³					X	X	X	X		X	
Evergreen blackberry ²					X	X	X	X			X
field bindweed ³								X			X
Himalayan blackberry ²					X	X	X	X	X	X	X
Japanese knotweed ²										X	
Portuguese laurel						X					X
reed canarygrass ²					X	X				X	
silver poplar											
scotch broom ²					X						X
tansy ragwort ¹											
vinca vine										X	X

Notes:

- * = dominant plant in habitat
- 1 = designated as a Class B noxious weed, control is required in King County.
- 2 = designated as a Non-Regulated Noxious Weed, control is recommended but not required in King County.
- 3 = designated as Weed of Concern, control is recommended but not required in King County.

Appendix 2: Wetland and Stream Reconnaissance Shoreline Community College

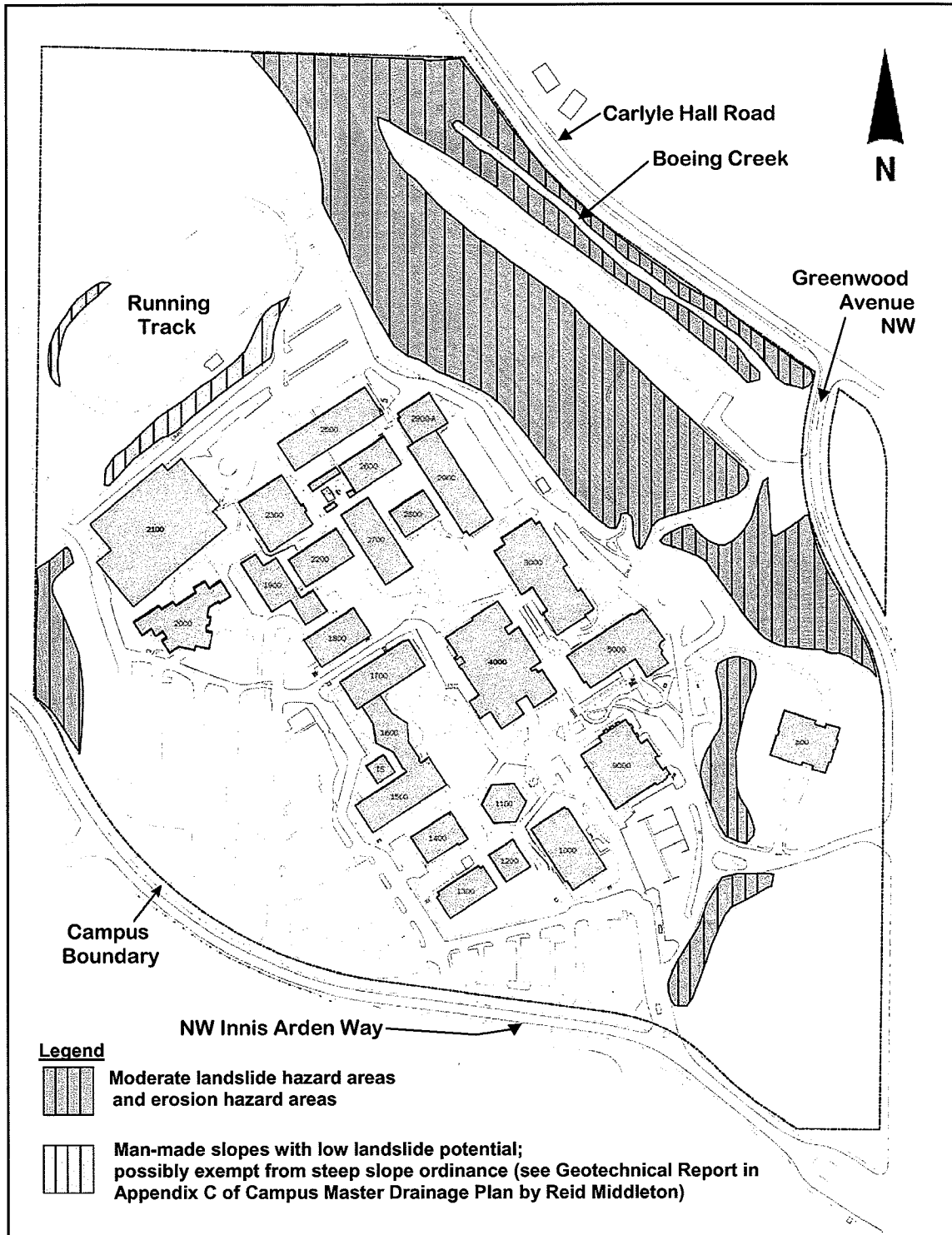


Not to scale

Source: Reid Middleton, Inc: Preliminary Topographic Base Map, April 3, 2009

NOTE: This sketch shows only the approximate location and extent of identified wetlands and streams as identified by Touchstone EcoServices during the September 9, 2009 field reconnaissance. A formal delineation will be needed to determine the exact boundaries of these critical areas. This sketch is not suitable or intended for analysis of impacts or mitigation planning.

Appendix 3: Steep Slope Reconnaissance Shoreline Community College



Source: Base map from Schacht Aslani Architects



March 22, 2013

Dear Neighbor,

On April 9th from 6 pm to 8 pm and on April 23rd from 6 pm to 8 pm Shoreline Community College will host public meetings at its 9000 Building, Room 9208 to discuss the College's planned addition of a 400 bed student housing project to its Master Development Plan, currently under review with the City of Shoreline. These meetings are being held as part of the city's ongoing planning process for Master Development Plans and as required for the Type C, quasi-judicial decision the College is seeking under the Shoreline Municipal Code. The Master Development Plan (MDP) will define the future development plans for the College's property for the next 10 years and will address how the College will serve its users while promoting neighborhood compatibility.

At the first meeting on the 9th, the College will:

- Give an overview of the review process before the City of Shoreline; including the Master Development Plan review schedule and State Environmental Policy Act (SEPA) process.
- Describe the new projects that are anticipated to be developed in the next 10 years.
- Discuss how comments from the meeting will be used to inform the College's decision-making process.
- Solicit comments from the public.

At the second meeting on the 23rd, the College will:

- Summarize the comments received at the first meeting:
- Respond to those comments received and describe the process moving forward in review of the MDP.

City Staff will be invited to attend and contact information for City Planning staff will be provided. The proceedings will be tape recorded for accuracy. The College's response to public comments will be provided to the City when our application is submitted. We look forward to seeing you at these community meetings.

Sincerely,

A handwritten signature in black ink, appearing to read "Daryl Campbell", is written over a large, stylized, circular flourish.

Daryl Campbell
Vice President for Administrative Services

Shoreline Community College
Master Development Plan Public Meeting Summaries.

Summary of Comments from April 9th and April 23rd responses:

Traffic

Comments:

- *Residents are concerned about increased traffic in the areas. Specifically:*
 - *Innis Arden and Greenwood intersection is challenged by high traffic volumes.*
 - *Residents are concerned that students do not always negotiate Innis Arden Greenwood intersection safely.*

The TSI consultant pointed out that the intersection is not challenged by high volumes so much as it is the configuration of the intersection (a 5 way stop) and because of this delays, at even low volumes, are to be expected.

The Traffic Impact Analysis (TIA) indicates that the relatively small increase in traffic volumes associated with the Housing Project is not likely to increase delays discernibly.

The configuration of the intersection is an existing condition identified in the City's Capital Facility Plan. Given the small amount of impact anticipated by the Master Development Plan (MDP), there is no rational nexus to support requiring the College to fix the existing deficiency.

The College does anticipate a comprehensive Transportation Management Plan (TMP) for the College which will help to mitigate overall traffic volume.

- *Residents frustrated with midday peak traffic times. Queues for intersections are long and so are delays in the middle of the day.*

The TIA indicates that the housing project will not likely cause an increase in off campus trips during the day. If anything, student residents will likely make fewer trips off campus during the day than commuting students.

- *There are concerns that traffic from resident students going to get food off campus 24 hours a day will impact traffic.*

Campus Housing with on-site food service is not likely to increase traffic during peak times. There is a possibility that during the evenings more students will choose to travel off campus. To respond to this potential evening traffic, the College is developing an off-site shuttle as part of a comprehensive Transportation Management Program. Details of the TMP will be incorporated into the MDP conditions.

- *Residents are concerned that student housing will bring many new trips to campus due to construction, food service trucks, new residents and new College staff.*

Questions:

- *What improvements are planned for Greenwood/Innis Arden intersection?*

As noted above, the limitation of this intersection is beyond the scope of this project to fix. A resolution of the challenged turning movements at this location will have to be implemented as part of the City's Capital Facilities plan.

- *Are driveway limitations planned for? Turning movement restrictions? Right in Right out?*

No. No changes to the current configuration or turning movements at the existing driveways are planned for.

- *How will construction traffic be handled?*

As part of the MDP process, the College hopes to develop a template for the elements of a Construction Traffic Management Plan (CTMP). These will likely include:

- **Designation of haul routes;**
- **Location of construction worker parking and truck access; and**
- **Notice to neighbors of CTMP conditions and construction schedule.**

- *Is the college planning on students not owning cars?*

The College intends to propose limitations on resident student parking on campus as an element of the lease for student housing units.

- *Is it possible to funnel parking in the lot into different campus exits?*

It is possible to control which parking areas of the campus use which campus exit. However, the Traffic Engineer has reviewed this issue extensively and determined that this option would not result in better traffic flow on and off campus than the current layout.

Parking

Comments:

- *Residents are concerned that students will own cars that will impact the available parking supply in the neighborhood.*

The parking supply during the MDP will actually increase available on campus parking in the first years of the MDP. The College will continue to look for offsite parking opportunities for student parking. Further, the College would be very supportive of a Residential Parking Zone in the surrounding neighborhoods to prevent spillover parking.

Questions:

- *Where does the new parking lot adjacent to the dormitories exit onto the street?*

The new lot adjacent to the housing will be able to use any one of the current entrances and exits of the Campus.

- *Is the City required to close the Greenwood lot and why?*

The Greenwood lot is being converted in part to a drainage detention and water quality treatment system over the next 20-30 years. Storm runoff from the MDP site area will be collected into underground pipe systems through yard drains and catch basins. Runoff from building roof areas will also be collected to the underground pipe system through roof drain systems. The underground pipes will connect to an existing 18-inch-diameter pipe that runs downhill to the Greenwood Parking Lot area adjacent to Boeing Creek. Through this pipe system, the collected water will be conveyed to a new wetpond to be built in phases at the Greenwood Parking Lot for pretreatment and water quality treatment. The treated water will be released to an adjacent pond for infiltration. Overflow from the infiltration pond will be discharged to Boeing Creek through a flow control structure. Only the first phase of this process is anticipated during the life of the MDP. This will result in the removal of less than a quarter of the Greenwood lot area. A full description of this stormwater system is included in the MDP Appendix.

- *Is there room for parking and storm treatment in that lot?*

Yes. During the life of the MDP, less than one third of the Greenwood Lot parking area will be used for the new stormwater facility.

- *Is there enough parking planned for the student housing?*

Yes. Vehicle access to the housing site, accommodating fire trucks, service vehicles and automobiles, will be provided through the existing horn shaped parking lot east of the athletic field. A 158 stall parking lot will be built immediately adjacent to the student housing project, providing 42 stalls for housing use and replacing the 116 parking stalls in the horn shaped parking lot that will be lost by construction of the student housing access road. To ensure that parking is adequate, the College intends to adopt lease restrictions on car ownership and parking for students residing on campus. The College will continue to utilize use of offsite parking and will provide a shuttle service for students to offsite parking locations. Further, the College intends to adopt a Transportation Management Program that will ensure continued adequate parking throughout the life of the MDP.

Stormwater

Comments:

- *Residents are concerns about increased stormwater runoff and conveyance:*
 - *The housing projects will increase need for sewer and drainage connections.*
 - *There will be increased runoff and sewer.*

All the stormwater detention and water quality treatments for the student housing will be provided on site in the form of underground detention vaults located below the parking area. The Civil Engineer has determined there is adequate water and sewer capacity already on site for the student housing and other MDP projects.

Questions:

- *How will drainage be handled?*

See Above.

- *What will be the impact to Boeing Creek?*

The stormwater engineering analysis indicated that the completed stormwater system will result in a net improvement to the water quality and stability of Boeing Creek. Once completed, the quality and quantity of stormwater runoff from the Campus will meet predevelopment conditions, meaning that that in terms of flow to Boeing Creek, it will be as if the Campus is a forested natural area.

- *What is the timeline and sequence of storm water detention in the Greenwood Lot?*

The housing project will have its own detention and treatment system located under the parking lot. The other three buildings in the MDP will require the first phase of the Greenwood lot detention system to be installed concurrent with those projects. The earliest this is anticipated to occur is in 2017 if the Allied Health Services project receives funding. Alternatively, The Automotive Center expansion could be the first project of the MDP developments if it received outside private funding. In this case, one of two options will be followed. Either on-site detention and water quality treatment facilities will be provided because of the special funding for the automotive center project, or the first phase, the detention system, would be built in the Greenwood Parking Lot. At this point, this is all that is anticipated to be needed in terms of detention for the life of the MDP.

Noise

Comments:

- *Residents are concerned that:*
 - *New residents may be disruptive and noisy.*

The College is sensitive to the fact that new on campus residents will increase the level of activity on campus. The proposed housing was sited on the ball fields, buffered by trees from the surrounding residential area in such a way as to minimize these conflicts. Additionally the College intends to enforce a Student Code of Conduct that will set forth rules regarding behavior expectations of student conduct on and off campus including:

- **Outline prohibited use of profane, abusive or vulgar language in any common area (including exterior areas associated with the property) or any excessive or disruptive noises of any kind;**
 - **Outline safety expectations for travel to and from Campus;**
 - **Set forth Quiet Hours;**
 - **Identify security and complaint protocols; and**
 - **Outline restrictions on the use and/or possession of alcoholic beverages or other drugs.**
- *Residents are concerned that the Volkswagen rally that College holds is already noisy.*

Noted: The College agrees to work with the organizers of this event to ensure that reasonable sound reduction measures are enforced.

- *The dog park is already noisy.*

Noted.

Questions:

- *What measures will the College use to mitigate the noise?*

As described above, the College does not anticipate substantial noise from the student housing project. To the degree that evening and weekend activity associated with the housing could result in additional noise, the student code of conduct will apply.

Public Nuisance

Comments:

- *Residents are concerned that:*
 - *The area will turn into a University District atmosphere.*
 - *Residents will change the dynamics of the City.*
 - *Students will be able to drink, have parties.*

The College, is located in a suburban neighborhood. Given the layout of the site and the surrounding residential zoning, it is not likely to result in the development of a commercial University atmosphere. Given the low student population and the relatively thick landscape buffering, it is anticipated that student housing will not be disruptive to the surrounding area. Based on the current MDP and future plans for the College, additional student housing is not anticipated

- *Dorms are located too close to the park and students will use the park.*

Neighborhood concerns regarding use of the park are noted. One of the principle goals of the MDP is to foster an inclusive, academically focused environment that encourages on campus fellowship among students. Current students will continue to utilize the park. To address concerns that campus residents may utilize the park more frequently, the College

anticipates that its Code of Conduct will need to include a section that addresses expectations for students using City facilities off campus.

Miscellaneous

Comments:

- *Residents are concerned that:*
 - *There was not adequate notice for the Comprehensive Plan Policy change.*

The Comprehensive Plan notice was not handled by the College. It is a City administered process.

- *Alternative locations were not considered, specifically vacant land on Aurora.*

Several alternative locations have been explored by the College including the nearby WSDOT property. None of these exploratory processes resulted in a viable project. Additionally, the College's goal of creating an inclusive academic environment is better served by providing on campus housing. The College is not proposing off campus housing.

- *Is there a really a shortage of student housing?*

Yes.

- *Coordination with adjacent development of Aurora Square is needed to enhance traffic and parking.*

Noted: Coordination with the City and any adjacent developers will need to be included as part of a Comprehensive Construction Traffic Management Plan. These CTMP's will need be reviewed and approved by the City prior to issuance of construction permits for individual projects and will at a minimum include:

- **Designation of haul routes and truck access;**
- **Hours of construction and peak constriction traffic;**
- **Signal or sign control of Campus entrances/exits where warranted;**
- **Location of construction worker parking;**
- **Street condition survey before and after construction; and**
- **Street cleaning measures during the excavation phases of construction.**
- *It is not appropriate for two year colleges to have dormitories.*

Noted. This is not a new precedent in the area. Both Edmonds Community College and Green River Community College provide student housing.

Questions:

- *Why was comp plan changed?*

The College requested a change to the CTMP in order for it to be consistent with the Shoreline Municipal Code which allows new uses, in this case housing, to be approved on campus zoned property through an MDP.

- *Was there public notice?*

Yes. There was public notice and at least two public hearings. Questions regarding City notice requirements should be directed to City Staff who oversee the Comprehensive Plan review process.

- *Several years ago there was a planned road on campus, off of Innis Arden, up to a planned amphitheater located northwest of the student parking. What happened to this plan?*

There are no new entrances proposed to the campus. The College does not intend to provide additional vehicle access to the northwest portion of the campus. There are no uses proposed there and the area is heavily wooded and steep.

