

Attachment 6 of SDP15-00002 Briefing Response Memo

Cover Sheet for SEPA MDNS, Stakeholder Comments to MDNS and Staff Responses

The following documents are included in this attachment set to the Briefing Response Memo for SDP15-00002, Issaquah Gateway Apartments, dated Sept. 16, 2015

Re-issued SEPA MDNS

The SEPA MDNS was re-issued primarily because the legal notice for the original SEPA determination wasn't published in the newspaper. The comment/appeal period was extended to reflect the new publication date. There was a small clarification made based on applicant comments: A mitigation measure was revised to clarify that grading back the Schneider Creek streambank applies above the ordinary high water mark (OHWM) of the stream.

Comments from the Washington State Department of Fish & Wildlife

Comments from Talasaea (consultants to the Applicant)

Comments from the Washington State Department of Archaeology and
Historic Preservation

Comments from Muckleshoot Tribe, with Talasaea and City staff responses

Comments from Connie Marsh with City staff responses

Comments from Mary Lynch (representing homeowners' associations along
Newport Way)

Staff Response to Mary Lynch's comments

CITY OF ISSAQUAH
MITIGATED DETERMINATION OF NONSIGNIFICANCE (MDNS)

Re-Issued: This SEPA Determination is re-issued because the legal notice wasn't published in the newspaper. There is a new comment/appeal period to reflect the new publication date.

Description of Proposal: Construction of a 400-unit multi-family residential development on a 30 acre site. The proposal includes two 80-unit five-story buildings over a single level of partially below-grade parking, and sixteen 10 and 20-unit three-story buildings, 692 total parking spaces with 419 surface parking spaces, an internal street network, a clubhouse building, a public neighborhood park, and associated utility improvements.

Schneider Creek, a Class 2 stream with salmonids, flows south to north along the west side of the site. The proposal would encroach approximately 4,650 SF into the stream buffer and 4,807 SF of buffer replacement area is proposed. The minimum stream buffer width would be 77 feet and the reduced buffer would be enhanced with native riparian plants.

There are 2 off-site Category III wetlands and the wetland buffers extend onto the subject site. Wetland A is located along the east property boundary. The proposal would encroach approximately 1,056 SF into the buffer and provide an equal replacement buffer area. Wetland B is located in the I-90 right-of-way along the north property boundary. The proposal would encroach approximately 354 SF into the buffer and provides an equal replacement buffer area. The wetland buffers would be enhanced with native buffer plantings.

The site would be accessed from a drive off Newport Way NW. The driveway access is proposed to be signalized. An emergency access would be provided at the southeast corner of the site, connecting to the Arena Sports Club parking lot off NW Poplar Way.

Proponent:	Greg Van Patten The Wolff Company 6710 E Camelback Rd, Suite 100 Scottsdale, AZ. 85251	Matt Corsi Urban Evolution 911 East Pike St, Ste 310 Seattle, WA. 98122
-------------------	---	--

Permit Number: SDP15-00002 – Gateway Apartments

Location of Proposal: 2290 Newport Way NW
Site is bounded to the north by I-90, to the south and west by Newport Way NW,

Lead Agency: City of Issaquah

Determination: The lead agency has determined this proposal would not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

Comment/Appeal Period: This Mitigated Determination of Nonsignificance is issued under WAC 197-11-340(2) and 197-11-680(3)(a)vii, and is based on the proposal being conditioned as indicated below. There is a 21-day combined comment/appeal period for this determination, between **August 20, 2015 and September 10, 2015**. Anyone wishing to comment may submit written comments to the Responsible Official. The Responsible Official will reconsider the determination based on timely comments. Any person aggrieved by this determination may appeal by filing a Notice of Appeal with the City of Issaquah Permit Center. Appellants should prepare specific factual objections. Copies of the

environmental determination and other project application materials are available from the Issaquah Development Services Department, 1775 12th Avenue NW.

Appeals of this SEPA determination must be consolidated with appeal of the underlying permit, per IMC 18.04.250.

Notes:

1. This threshold determination is based on review of the Plan Set including civil, landscape and architectural plans received July 6, 2015; Critical Areas Study and Detailed Conceptual Mitigation Plan (Talasaea Consultants) received July 13, 2015; Traffic Assessment (TENW) dated April 24, 2015 with supplemental information provided on June 25, 2015; Geotechnical Report (GeoEngineers) dated December 2, 2014; Introductory Drainage Report (Triad Associates) dated November 25, 2014 and revised April 22, 2015; Preliminary Habitat/Species Assessment and Archaeological and Historic/Cultural Resource Review (SoundEarth Strategies) dated November 21, 2012; Wetland Review Memo (Cooke Scientific) dated July 9, 2015; SEPA environmental checklist dated April 28, 2015 and revised July 9, 2015; and other documents in the file.
- 2) Issuance of this threshold determination does not constitute approval of the project proposal. The proposal will be reviewed for compliance with all applicable City of Issaquah codes, which regulate development activities, including the Central Issaquah Plan, Critical Area Regulations, Building Codes, Clearing and Grading Ordinance, and Surface Water Design Manual.

Findings:

1. Land Use: The site is zoned Village Residential (VR). It is located within the Central Issaquah Plan area, the plan was adopted by the City Council in April 2013. The goal of the plan is to transition the Central Issaquah area to a higher density, mixed-use, pedestrian-oriented area. The proposed multi-family development is generally consistent with the Central Issaquah Plan vision and the VR zoning. The proposal will be evaluated in detail for compliance with the Central Issaquah Plan policies and standards under the Site Development Permit.
2. Wetlands: The site has been maintained in agricultural use, as a hay field annually mowed. An extensive system of agricultural drain tiles has been maintained and has effectively modified the wetland hydrology. Soils on the site are mapped as hydric and the 1981 National Wetland Inventory (NWI) maps show most of the site as wetland. Talasaea Consultants have reviewed the site for wetlands for the past 15 years, monitoring groundwater for wetland hydrology, and have concluded wetland indicators (soils, plants, hydrology) are not currently present (Talasaea Consultants). The City conducted an outside peer review of the site for potential wetlands (Cooke Scientific) and the review concurred with Talasaea's Critical Area Report for wetland boundary mapping, characterization and the wetland ratings.

There are 2 off-site Category III wetlands and the 50-foot wetland buffers extend onto the subject site. Wetland A is located along the east property boundary. Wetland A is a palustrine forested/scrub-shrub wetland (Cowardin et al.), approximately 3,720 SF in total size with 281 SF extending onto the subject property. It's associated with a drainage ditch for the Arena Sports Club property. The proposal would encroach approximately 1,056 SF into the buffer and the proposal includes an equal replacement buffer area. Wetland B is a palustrine scrub-shrub emergent wetland (Cowardin et al.), located in the I-90 right-of-way along the north property boundary. Approximately 275 SF of Wetland B extends onto the site. The proposal would encroach approximately 354 SF into the buffer and an equal buffer replacement area is proposed.

The proposed plans indicate there would be temporary construction impacts in the outer wetland buffers due to utility installation, connections and site grading. Wetland buffer areas impacted by

temporary construction and the wetland buffer replacement areas shall be re-planted consistent with the planting densities specified in the King County Critical Areas Mitigation Guidelines. The remaining, undisturbed wetland buffer areas are currently dominated by reed canarygrass and shall be enhanced with native tree and large shrub species to compete with and eventually shade out the reed canarygrass. The undisturbed wetland buffer areas shall be enhanced with native trees and large shrub species at the tree planting density specified in the King County Critical Areas Mitigation Guidelines. The existing condition of the on-site wetland buffer areas is predominantly non-native, invasive reed canarygrass and pasture grasses and the wetland buffer enhancement would significantly improve buffer functions over the existing conditions.

The development could impact existing wetland hydrology by directing surface flows into the stormwater system. In order to maintain hydrology to the wetland, the applicant shall prepare a wetland hydrology analysis to demonstrate pre-development hydrology to the wetland would be maintained. Stormwater recharging the wetland shall be treated for water quality or come from non-pollution generating surfaces. This shall be approved by the City prior to issuing construction permits.

There is a wetland associated with Tibbetts Creek, located to the southeast of the project development area. It is part of the applicant's property but located on a parcel separated from the development area by the existing Arena Sports Club. The wetland is approximately 165,000 SF (150,000 SF on-site), and is classified as a palustrine emergent/scrub-shrub wetland. According to the Critical Area Report, the Tibbetts Creek wetland is a Category III wetland requiring a 50-foot buffer. The City has designated a regional shared-use trail crossing the Tibbetts Creek wetland, to provide a future trail connection between the Mountains to Sound Greenway trail along Newport Way and a trail along Tibbetts Creek. The applicant will construct the regional shared-use trail along the south edge of the development site, associated with a public neighborhood park, and will construct an elevated boardwalk across the Tibbetts Creek wetland. The boardwalk will be constructed using pin pile foundations to avoid direct wetland fill impacts. The boardwalk would have approximately 4,000 SF of indirect shade impacts to the wetland and 1,000 SF of indirect shade impacts to the wetland buffer. The applicant proposes to mitigate the indirect impacts of the boardwalk by enhancing the wetland and wetland buffer at a 4:1 ratio (16,000 SF of wetland enhancement and 4,000 SF of buffer enhancement). The emergent portion of the wetland is currently dominated by reed canarygrass and the scrub-shrub area with willow species. The buffer is dominated by Himalayan blackberry. The applicant will also construct a pedestrian/bicycle bridge over Tibbetts Creek, connecting to the east side of the creek.

3. Schneider Creek: A Critical Areas Study (Talasaea Consultants, July 13, 2015) provides the following information on Schneider Creek. Schneider Creek is a Class 2 stream with salmonids and it flows from south to north along the west side of the site. The stream originates on Cougar Mountain in unincorporated King County approximately 3,000 feet to the east of Newport Way NW and enters the site through a 2.5 foot diameter culvert under Newport Way NW. The outfall of the culvert is perched approximately 2 feet and poses a barrier to fish migration upstream of the site. Approximately 900 linear feet of Schneider Creek flows through the project site, 480 feet of the channel is located within an existing native growth protection easement (NGPE), the NGPE was created for wetland mitigation by the Washington State Department of Transportation (WSDOT). Schneider Creek exits the property and flows parallel to I-90 before going through a 3.5-foot diameter culvert under I-90 and West Lake Sammamish Parkway, and then flows approximately 650 feet into Lake Sammamish. The width of the channel on-site averages approximately 6 feet, the streambed consists predominantly of gravel and sand, and the channel lacks large woody debris (LWD).

According to the Critical Areas Report, fish usage studies have identified cutthroat trout and coho salmon fry in Schneider Creek. A King County study of Lake Sammamish kokanee (*Blueprint for the Restoration and Enhancement of Lake Sammamish Kokanee Tributaries, 2014*) found that Schneider Creek does not support significant numbers of kokanee spawners. The lower reach from the lake has a very low gradient and fine substrates and therefore does not currently provide kokanee spawning habitat. Some spawning activity was observed on the stream segment flowing parallel to West Lake Sammamish Parkway. The Critical Area Report concludes that the segment of Schneider Creek on the subject site is limited in its ability to provide winter rearing or refugia habitat for anadromous fish because of the gradient of the stream, the current channel morphology and lack of pools.

Schneider Creek, a Class 2 stream with salmonids, requires a 100-foot buffer width and a 15-foot building setback from the edge of the buffer. The proposal would encroach approximately 4,650 SF into the stream buffer and 4,807 SF of buffer replacement area is proposed. The minimum stream buffer width would be 77 feet and the reduced buffer would be enhanced with native riparian plants. The plans indicate approximately 50,900 SF of the Schneider Creek buffer would be enhanced. To ensure the stream buffer is densely planted with native riparian species needed to support fish and wildlife habitat, the inner 50 feet of the stream buffer shall be densely planted consistent with the planting densities specified in the King County Critical Areas Mitigation Guidelines. The outer stream buffer shall be planted at a minimum of 50% of the planting density to allow for visibility to the stream buffer trail (see below) and to transition to the developed part of the site.

The on-site stream buffer is currently reed canarygrass and pasture grass, there is no woody vegetation outside the WSDOT NGPE. Enhancement of the stream buffer with native tree and shrub species would improve fish and wildlife habitat on the site; by providing shade/cover to maintain cool water temperatures, increase plant species diversity and structure, provide organic inputs to support macroinvertebrates and insects, and eventually to supply wood recruitment to the stream. The stream buffer enhancement plans also include habitat features for wildlife such as snags, buried rootwads and stumps.

The proposal includes a 4-foot wide soft-surface trail in the outer buffer. An equal buffer replacement area (1,772 SF) is proposed for the trail buffer encroachment. The proposal also includes a paved pedestrian/bicycle connection bridging Schneider Creek to the adjacent property to the west. The bridge or stream crossing will be reviewed under a separate permit. However, the paved pedestrian/bicycle connection on the subject site leading to the stream crossing goes through the buffer and this encroachment also requires buffer averaging or an equal buffer replacement area.

The stream buffer enhancement plans include constructing an undulating 4-6 foot high berm composed of peat excavated from the site development area. The Critical Area Report states raising the existing grade along the creek would shorten the time for planted trees to shade the stream. The stream channel is currently confined and incised and the streambanks, above the ordinary high water mark (OHWM), could be graded back to allow natural stream processes to create meanders within the buffer area. A final grading plan for the stream buffer and the proposed berm shall also address grading back the streambanks, above the ordinary high water mark (OHWM), to allow natural stream processes to create meanders within the buffer area. The grading plan shall be approved with the final mitigation plans prior to issuance of construction permits.

4. Wildlife habitat – A preliminary habitat/species assessment was conducted for the site (SoundEarth Strategies) to review the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) list and Priority Habitat Maps. The report concludes that there are no endangered species reported on or in the vicinity of site. However, the Marbled murrelet, a threatened species, has been detected in the section and the communal roosting area for the Townsend's big-eared bat is

shown on the site, a candidate species on the WDFW Threatened and Endangered Species list. Priority habitat areas identified on the site include Schneider Creek and the palustrine wetlands. The proposal would enhance the stream buffer of Schneider Creek and the wetland buffers on the site, greatly improving the wildlife habitat over the existing site conditions, and effectively mitigating for wildlife habitat impacts.

5. Stormwater – A Drainage Report (Triad Associates) was prepared to identify potential problems upstream and downstream of the site, and the stormwater facility flow control and water quality design. The project will be required to meet standards of the 2009 King County Surface Water Design Manual with the 2011 City of Issaquah Addendum. The standards require stormwater flows to mimic or even reduce the flow intensities of pre-developed conditions. It should be noted that the stormwater model for the development assumed the predevelopment condition of the site is forested and flat. Considering the actual site condition is mowed pasture and slightly sloped, the modeled predevelopment condition likely underestimates existing actual site runoff flow rates. Stormwater detention would be provided in a below-garage vault located on the north side of the site. Detained flows would be treated for water quality to meet the required Sensitive Lake Protection standards and then dispersed in the buffer of Schneider Creek, which is the natural low point of discharge from the site.
6. Noise – The site is adjacent to Interstate-90 (I-90) which generates noise from vehicles and is an existing noise source that may affect the project. The applicant proposes to engage an acoustic engineer to recommend strategies to incorporate into the 5-story buildings adjacent to I-90, to mitigate the I-90 noise impacts on future project residents. The applicant will also evaluate if planting trees in the wetland buffer adjacent to I-90 would provide a noise buffer. The larger 5-story buildings adjacent to I-90 would provide some noise buffering for the smaller internal buildings on the site.
7. Cultural and Historic Resources – The project development area has had numerous historic disturbances associated with logging, farming and grading and therefore may have low potential for in-situ pre-Euro American artifacts. A preliminary archaeological and historic/cultural resource review was prepared for the proposal (SoundEarth Strategies, November 2012). The property was reviewed for listings in the Washington Department of Archaeology and Historic Preservation’s (DAHP) secure Washington Information System for Architectural and Archaeological Records Data (WISAARD) Database, the National Register of Historic Places, the Washington State Archaeological Site Inventory, and the Washington Heritage Register (WHR). There are no documented archaeological artifacts on the property. However, a review of DAHP’s secured portion of WISAARD (which includes the archaeological data) indicates sections within the property that both “recommend” and “highly advise” an archaeological survey due to “moderate” and “high” risks. The Washington Department of Archaeology and Historic Preservation (DAHP) shall determine if an archaeological survey is needed prior to clearing/grading activity or if an Inadvertent Archaeological Discovery Plan, specifying required actions if cultural materials are found during ground disturbance activities, will be sufficient.
8. Traffic: A Traffic Assessment (TENW) was provided to document trip generation for the proposal and to evaluate the site access off Newport Way NW. The report estimates the proposal would result in 2,650 net new weekday daily trips; with 203 weekday AM peak hour trips (41 entering, 162 exiting) and 247 weekday PM peak hour trips (160 entering, 87 exiting).

Under the City’s new concurrency standards (adopted by Ordinance #2733, effective February 2, 2015), individual development applications are not required to evaluate their project traffic impacts

on the local street system, provided a proposal is consistent with the City's planned growth that was assumed and previously evaluated in the traffic concurrency model. The City completed a system-wide transportation concurrency assessment for future planned growth and road improvements were identified to mitigate for the corresponding planned growth. According to the City's traffic model, adopted level of service (LOS) standards would be maintained and development projects would be concurrent provided the identified road improvements are constructed. A transportation impact fee was calculated to fund the road improvements identified in the concurrency model and on the City's Transportation Improvement Program (TIP). Development proposals can therefore mitigate for their traffic impacts by payment of the traffic impact fee.

The subject development proposal is consistent with the growth assumptions included in the traffic concurrency model. Therefore, the proposed development can withdraw trips from the "trip bank" that was calculated for concurrency and can mitigate their traffic impacts by payment of the traffic impact fee.

However, the concurrency assessment doesn't address traffic operations and safety at the project site driveway access or at non-concurrency intersections. The main access into the proposed development would be from a drive off Newport Way NW at the intersection with NW Pacific Elm Dr. The traffic report included a site access evaluation and concluded the intersection would meet signal warrant standards. Therefore, the applicant is proposing a traffic signal at the intersection with channelization improvements (turn pockets, deceleration lanes) along the site frontage. According to the traffic report, the intersection would operate at LOS A in the AM peak hour and LOS B in the PM peak hour with a signalized intersection. The City is further evaluating whether the intersection should be signalized, unsignalized, or improved with a roundabout based on traffic operations and safety and for pedestrian access and safety. The site access and intersection improvements shall maintain the City's adopted level of service (LOS) standard "D."

The proposal also includes a secondary emergency vehicle access at the southeast corner of the site, connecting to the Arena Sports parking lot off NW Poplar Way.

9. Bicycle and Pedestrian Facilities – The *Nexus Study for Bicycle and Pedestrian Facilities Mitigation Fees* (Henderson Young & Company, December 10, 2014) was adopted by the City Council, Ordinance #2733, effective February 2, 2015. The study quantifies the direct impact of new development on the current system of bicycle and pedestrian facilities and the additional demands from future growth to maintain the adopted level of service. The report uses trip generation rates based on the different land use types to quantify the impacts of new development. It also identifies 16 specific bicycle and pedestrian projects that are needed to support the City's level of service standard. Payment of mitigation fees as determined in the study may satisfy a development's requirement to mitigate their project impacts on the level of service standard. If the developer doesn't voluntarily use the methodology and mitigation fees as determined in the report, the developer may choose other methods to quantify and mitigate their impact including conducting a study of its impacts and identifying alternate means of mitigating impacts to achieve the adopted standards. The regional shared-use trail that will be constructed by the applicant is not one of the 16 bicycle/pedestrian projects identified in the report and therefore the applicant does not receive credit for this mitigation fee. The mitigation fee is presently \$462.75/apartment unit. The mitigation fee will be assessed with issuance of building permits and the actual cost of the mitigation fee will be the adopted fee in effect at the time of permit issuance. Applicant objections to the voluntary payment should be made during the SEPA comment period.
10. Public Services - The proposal would have a potential impact on public services, including police and general government buildings. IMC Chapter 3.74, Methods to Mitigate Development Impacts,

provides alternatives to mitigate for direct impacts of proposed development. The City may approve a voluntary payment in lieu of other mitigation. Rate studies for police facilities and general government buildings are included in IMC 18.10.260 as the City's SEPA policy base. The rate studies present the methodology and formulas for determining the amount of the mitigation fee commensurate with the proposed land use and project impacts. The current mitigation fee is \$78.56/multi-family unit for general government and \$154.35/multi-family unit for the police mitigation fee. The mitigation fee will be assessed with issuance of building permits and the actual cost of the mitigation fee will be the adopted fee in effect at the time of permit issuance. Applicant objections to the voluntary payment should be made during the SEPA comment period.

Mitigation Measures: The Mitigated Determination of Nonsignificance is based on the SEPA environmental checklist dated April 28, 2015 and revised July 9, 2015 and supplemental technical information and reports listed in the Notes. The following SEPA mitigation measures shall be deemed conditions of the approval of the licensing decision pursuant to Chapter 18.10 of the Issaquah Land Use Code. All conditions are based on policies adopted by reference in the Land Use Code.

1. The Critical Area Regulations require the following measures:
 - 1) The outer extent of the critical area buffers shall be fenced in the field with installation of temporary erosion sedimentation control (TESC) measures, prior to beginning construction and maintained through the duration of construction activities.
 - 2) Permanent survey stakes using current survey standards shall be set to delineate the boundaries of the critical area buffers.
 - 3) Critical areas shall be fenced to limit encroachments from pedestrians and dogs, while also accommodating trail access. Fencing locations and details shall be shown on the final mitigation plans and subject to DSD approval. Critical area signs shall be installed along the fences to explain the type and value of the critical area.
 - 4) Critical areas and buffers shall be protected in perpetuity with a Native Growth Protection Easement (NGPE) recorded on the property title.
 - 5) A 5-year monitoring/maintenance period is required for the stream and wetland buffer enhancement. The applicant shall provide a bond amount equal to 50% of the cost of plants, labor and the 5-year monitoring/maintenance cost prior to final building permit approval.
2. Final stream and wetland buffer enhancement plans are required for approval by the Issaquah Development Services Department (DSD) prior to issuing construction permits. Final plans shall include a grading plan, planting plan and a 5-year monitoring/maintenance plan with performance standards for monitoring success of the enhancement planting. The plans shall meet King County Critical Areas Mitigation Guidelines for monitoring performance standards.
3. Wetland buffer areas impacted by temporary construction and the wetland buffer replacement areas shall be re-planted with native tree and shrub species consistent with the planting densities specified in the King County Critical Areas Mitigation Guidelines. The remaining, undisturbed wetland buffer areas are currently dominated by reed canarygrass and shall be enhanced with native tree and large shrub species to compete with and eventually shade out the reed canarygrass. The undisturbed wetland buffer areas shall be enhanced at the tree planting density (9 feet on-center) specified in the King County Critical Areas Mitigation Guidelines.

4. The inner 50 feet of the Schneider Creek stream buffer shall be planted consistent with the planting densities specified in the King County Critical Areas Mitigation Guidelines, to ensure the buffer is densely planted with native riparian species needed to support fish and wildlife habitat. The outer stream buffer shall be planted at a minimum of 50% of the planting density standard, to allow for visibility to the stream buffer trail and to transition to the developed part of the site.
5. The pedestrian/bicycle trail crossing Schneider Creek and connecting to the adjacent property to the west goes through the stream buffer and requires buffer averaging or an equal buffer replacement area. This shall be shown on the final mitigation plans, to be approved prior to issuing construction permits. The bridge or stream crossing will be reviewed under a separate permit.
6. A final grading plan for the stream buffer and the proposed berm shall also address grading back the streambanks, above the ordinary high water mark (OHWM), to allow natural stream processes to create meanders within the buffer area. The grading plan shall be approved with the final mitigation plans prior to issuance of construction permits.
7. The development could impact existing wetland hydrology by directing surface flows into the stormwater system. In order to maintain hydrology to the wetlands, the applicant shall prepare a wetland hydrology analysis to demonstrate pre-development hydrology to the wetlands would be maintained. Stormwater recharging the wetlands shall be treated for water quality or come from non-pollution generating surfaces. This shall be approved by the City prior to issuing construction permits.
8. The applicant shall provide an as-built plan of the stream and wetland buffer enhancement and the consulting biologist shall verify in writing that the planting has been installed per plan prior to the final approval of building permits.
9. The Washington Department of Archaeology and Historic Preservation (DAHP) shall determine if an archaeological survey is needed prior to clearing/grading activity or if an Inadvertent Archaeological Discovery Plan, specifying required actions if cultural materials are found during ground disturbance activities, would be sufficient.
10. The site access and intersection improvements shall maintain the City's adopted level of service (LOS) standard "D." The City is further evaluating whether the intersection should be signalized, unsignalized, or improved with a roundabout based on traffic operations and safety as well as pedestrian access and safety.
11. The applicant shall mitigate for potential impacts on public services and bicycle and pedestrian facilities. The City may approve a voluntary payment in lieu of other mitigation. The current mitigation fee is \$78.56/multi-family unit for general government, \$154.35/multi-family unit for the police mitigation fee, and \$462.75/apartment unit for the bicycle/pedestrian mitigation fee. The mitigation fee will be assessed with issuance of building permits and the actual fee amount will be the adopted fee in effect at the time of permit issuance. Applicant objections to the voluntary payment should be made during the SEPA comment period.

Responsible SEPA Official: Peter Rosen
Position/Title: Senior Environmental Planner
Address/Phone: P.O. Box 1307, Issaquah, WA 98027-1307 (425) 837-3094
Date: 8/20/2015 **Signature:**  _____

cc: Washington State Department of Ecology
Muckleshoot Indian Tribe
U.S. Army Corps of Engineers
Washington State Department of Fish and Wildlife
Washington State Department of Archeology and Historic Preservation (DAHP)
WSDOT, Ramin Pazooki
City of Bellevue, Michael Paine
SEPA Parties of Record
Issaquah Development Services Department
Issaquah Parks and Public Works Engineering Departments

File Message Bluebeam Adobe PDF

Ignore X Reply Reply All Forward Meeting More Move OneNote Actions Mark Unread Categorize Follow Up Translate Find Related Select Zoom Search Archive Archive Create PDF Change Settings Select Folders Mark as Spam Mark as Not Spam Barracuda Networks Bluebeam

You replied to this message on 8/6/2015 10:49 AM.

From: Peter Rosen
To: Amy Tarce
Cc:
Subject: FW: City of Issaquah SEPA Determination - 7-30-2015 - Gateway Apartments

Sent: Wed 8/5/2015 3:00

From: Peace, Angie D (DFW) [mailto:Angela.Peace@dfw.wa.gov]
Sent: Wednesday, August 05, 2015 2:42 PM
To: Peter Rosen
Subject: RE: City of Issaquah SEPA Determination - 7-30-2015 - Gateway Apartments

Hi Peter,

Thanks for sharing the SEPA documents associated with the Gateway Apartments development.

I wanted to make sure that you and the applicant/developer are aware that any new storm water outfalls to waters of the state (Schneider creek or stream-associated wetlands) requires an HPA. I didn't see an HPA listed in the pending permits, and it wasn't entirely clear to me whether the text below indicated that a new storm water outfall would be constructed.

Would you please make sure the applicant is aware of the need for a Hydraulic Project Approval from the Washington Department of Fish and Wildlife for a new storm water outfall? The Hydraulic Code Rules pertaining to storm water outfalls can be found here: <http://app.leg.wa.gov/WAC/default.aspx?cite=220-660-260>

Thanks, and have a great day!

Angie

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]

Drainage into the Issaquah Gateway site is limited to onsite sources. Drainage from Cougar Mountain and Newport Way is directed into Schneider Creek, west of the proposed development. Drainage from the properties to the south and east is directed into the Tibbetts Creek basin, with a limited amount of drainage flowing into the I-90 right-of-way, near the northeast corner of the Issaquah Gateway site.

Onsite flows will be intercepted by a private, tight-lined storm drainage system. Roof drainage will be connected to the roadway storm drainage system. These combined flows will be directed into an onsite stormwater detention system.

Stormwater detention will be provided within below-garage vaults. The detained outflows will be filtered through two large water quality treatment structures, and then pumped and dispersed into Schneider Creek, the natural point of discharge. Stormwater Detention and Water Quality Treatment will be per the required standards to protect Schneider Creek and Lake Sammamish.

A uniform drainage path will be created, generally from south to north, providing safe overflow paths during high rainfall events.

Angie Peace
Fish and Wildlife Habitat Biologist
Washington Department of Fish and Wildlife
Region 4 – Issaquah Field Office
(425) 427-0570 (office)
angie.peace@dfw.wa.gov



MEMO

TO: Matt Corsi 911 East Pike Street Suite 310 Seattle, Washington 98122	FROM: David R. Teesdale PROJECT: Gateway Apartments (TAL 634C) SUBJECT: Response to SEPA MDNS DATE: 18 August 2015 PAGES: 4
--	---

Matt:

Talasaea has completed their review of the SEPA Mitigated Determination of Nonsignificance (MDNS) received from the City of Issaquah for the Gateway Apartments project. We have the following comments and/or corrections that should be addressed by the City prior to the reissuance of an amended SEPA decision.

On Page 1, the last sentence in paragraph 2 states: "The proposal includes a pedestrian/bicycle bridge over Schneider Creek, connecting to the adjacent property to the west."

Comment: The pedestrian bridge over Schneider Creek is only shown as a placeholder for the future Gateway Senior Housing project. It is not part of the current Apartments project.

On Page 2, under Notes, Item 1, there is reference to a "Wetland Review Memo" (Cooke Scientific) dated July 9, 2015.

Comment: We have requested a copy of the consultant's memo, but to date have not received it. We wish to receive a copy of referenced memo.

On Page 2, under Findings, Item 2 Wetlands, the end of the 2nd paragraph states:

"The proposed plans indicate there would be temporary construction impacts in the outer wetland buffers due to utility installation and connections and grading. The wetland buffers are proposed to be enhanced with native trees and shrubs. The inner 35 feet of the buffer shall be planted consistent with the planting densities specified in the King County Critical Areas Mitigation Guidelines (KCCAMG). The outer 15 feet of the wetland buffer shall be planted at a minimum of 60% of the planting density as a transition to the developed part of the site."

Comment: We would like the distinction to be made regarding the planting densities in the restored wetland buffer areas versus the enhanced wetland buffer areas. We understand the need for the planting densities for the restored buffer areas. However, throughout our discussions with the city and as shown on our proposed planting typical in the mitigation plan, we are only proposing to plant the undisturbed enhanced wetland buffer areas with native conifer and deciduous trees and large shrubs due to the existence of 100% coverage of reed canarygrass (RCG). The trees and larger shrubs will grow taller than the RCG, which will eventually be

shaded out. Small shrubs and groundcover species will not be able to out-compete the RCG and will likely be smothered and die.

On Page 3, the end of the second paragraph states: “The applicant will also connect a pedestrian/bicycle bridge of Tibbett’s Creek, connecting to the east side of the creek. The bridge will be constructed under a separate permit.”

Comment: Both the elevated boardwalk and the bridge over Tibbett’s Creek will be constructed as part of the Apartments project and will be included under the Apartments’ permit (not as a separate permit).

On Page 4, the top paragraph contains an erroneous statement in regard to the potential for Schneider Creek to provide spawning, winter rearing, or refugia for salmonids on the Gateway property. The exact text reads as follows:

“The Critical Area Report concludes that the segment of Schneider Creek on the subject site **doesn’t support spawning, winter rearing or refugia habitat** (emphasis added) for anadromous fish because of the gradient of the stream, the current channel morphology and lack of pools.”

Comment: This conclusion is not what was provided in our Critical Areas Report. Our report **does not** say that there is no spawning, rearing, or refugia habitat for anadromous fish in the onsite reach of Schneider Creek. Our text does mention that the onsite reach of Schneider Creek from the I-90 right-of-way to the WSDOT NGPE is **limited** in its ability to provide winter rearing or refugia for anadromous fish due to existing stream morphology, gradient, and lack of pools. This is an important distinction in describing current site conditions.

We respectfully request that the SEPA MDNS be revised to replace the erroneous statement (highlighted in bold text above) with the wording we provided in our report on Page 15, Section 5.2.2.1 within the paragraph entitled **Schneider Creek Classification**.

On Page 4, the last sentence in paragraph 1 states: “The outer stream buffer shall be planted at a minimum of **60% of the planting density** [emphasis added] to allow for visibility to the stream buffer trail (see below) and to transition to the developed part of the site.”

Comment: Per a review memo provided by Peter Rosen on June 24, 2015, he states under Item 7 Critical Areas – 6) Schneider Creek Buffer Enhancement – The outer buffer can be planted at **50% of this density** [emphasis added], to transition to the development area and to accommodate the trail. We agreed to the 50% density

for the plantings and this is what we depicted on our mitigation plan. We are looking for consistency in this requirement.

On Page 4, in paragraph 4, a second erroneous comment was made that states:

“[t]he stream channel is currently confined and incised and the streambanks **could** [emphasis added] be graded back to allow natural stream processes to create meanders within the buffer area. A final grading plan for the stream buffer and the proposed berm **shall also address grading back the streambanks** [emphasis added] to allow natural stream processes to create meanders within the buffer area”.

Comment: It has always been the intention of our stream buffer mitigation plan to allow natural processes to create the meanders and not to do any work within the ordinary high water mark (OHWM) to create this type of habitat. As the Applicant stated in the River and Streams Board Public Meeting of 21 July 2015, “[w]e are not proposing habitat improvements within the channel.” The suggestion that the stream banks **could** be graded back to allow natural stream processes would involve work within the OHWM of Schneider Creek and would require additional permitting from the Washington Department of Fish and Wildlife, the Army Corps of Engineers and additional public and tribal comment. This would constitute the very habitat improvements within the channel of Schneider Creek that the applicant categorically stated during the River and Streams Board Meeting would not occur. In fact, Peter Rosen responded to a question by either a Board Member or a member of the public that they (the client) are not proposing any work below the OHWM within the stream channel (personal conversations with Bill Shiels and Ann Olsen of Talasaea). Both Mr. Rosen and Ms. Tarce were present at that meeting.

It is our intent to allow natural processes to develop a natural stream channel within the limits provided by the proposed berm, plantings and the placement of large woody debris. We anticipate that the current movement of bed load onto and through the onsite reach of Schneider Creek will provide a sufficient natural mechanism to create biologically significant meanders and resultant geomorphic instream habitat features. We also anticipate that the onsite reach of Schneider Creek will also recruit woody debris from upstream as the channel morphology naturally develops. We respectfully request that the SEPA MDNS be revised to remove the suggestion to grade the streambanks.

On Page 7, Mitigation Measures, Items 3 and 4 again reference planting densities as discussed above.

Comment: Please refer to our comments stated earlier for planting densities regarding wetland buffer restoration versus wetland buffer enhancement and the discrepancy for the planting densities for the stream buffer.

On Page 8, Mitigation Measures, Item 6 states: “A final grading plan for the Schneider Creek buffer and the proposed berm **shall also address grading back the streambank to allow natural stream processes to create meanders within the buffer area** [emphasis added].

Comment: As stated earlier, we will not be grading back the streambanks below the OHWM. We respectfully request that the SEPA MDNS be revised to remove the suggestion to grade the streambanks.

Finally, a question of the limits of the wetland area within the WSDOT NGPE was raised by Mr. Rosen in an email dated July 27, 2015. The email was based upon an email from Connie Marsh, city resident. It was her concern that the wetlands within the NGPE might have become larger and that the wetland buffer might extend beyond the limits of the NGPE. We subsequently delineated the WSDOT wetland and mapped its boundary with a mapping-grade GPS receiver. We then rated the wetland and determined that the wetland is a Category IV wetland, but on the cusp of being a Category III wetland. However, to be conservative, we applied the Category III wetland buffer per City of Issaquah code to the WSDOT wetland and overlaid it on the limits of the NGPE (see **Exhibit 1**). The 50-foot Category III wetland buffer for the WSDOT wetland extends beyond the limits of the NGPE only at the northeast corner of Parcel 2024069107, but is completely within the 100-ft buffer for Schneider Creek. The 50-foot buffer for the WSDOT wetland will not be impacted by the proposed development.

We feel that it is vital to the project that these errors/corrections be corrected and that the SEPA decision be re-issued.

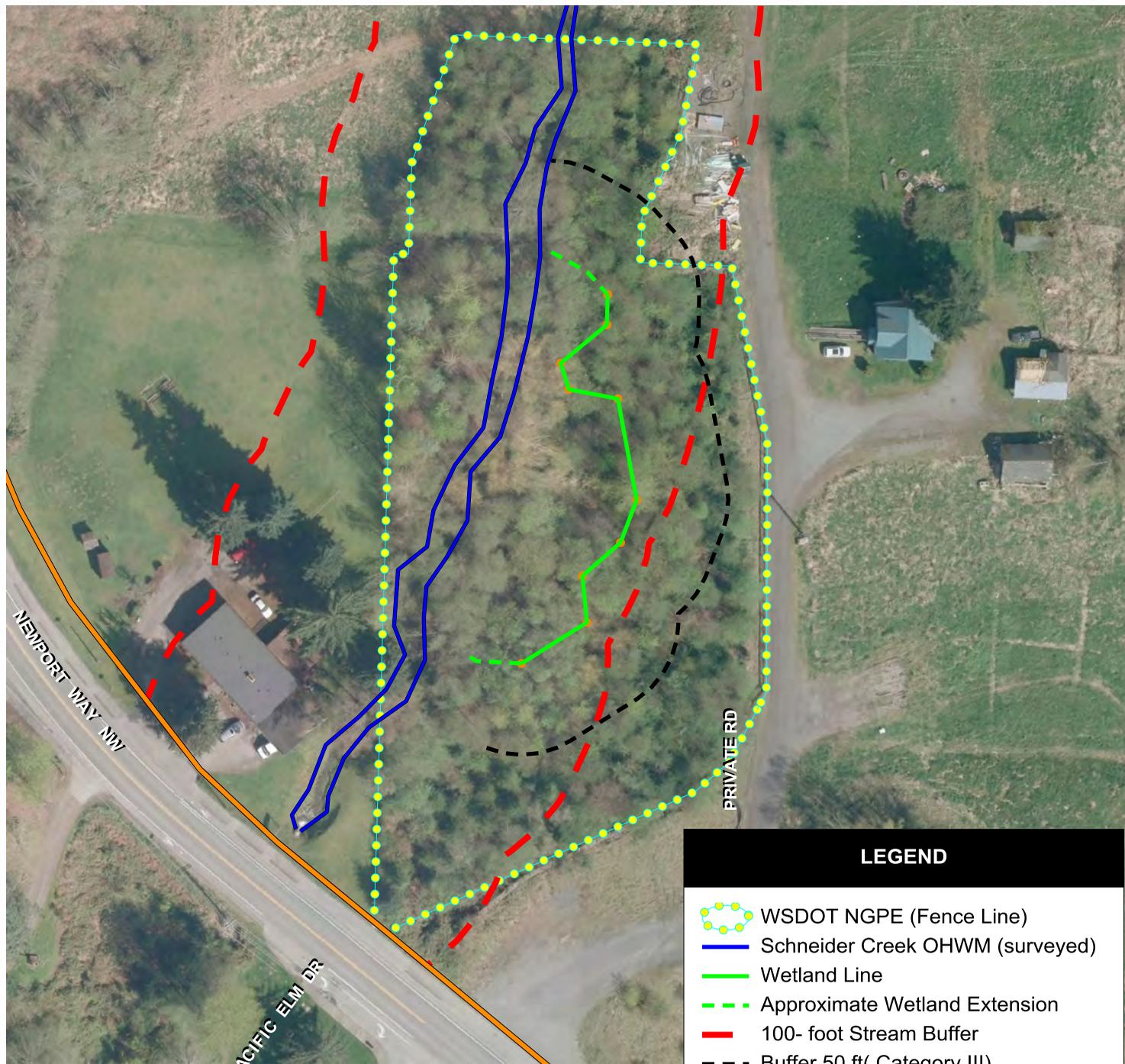
Thank you.

Sincerely,

TALASAEA CONSULTANTS, INC.

David R. Teesdale, PWS
Senior Wetland Ecologist

Attachment: **Exhibit 1 – WSDOT Wetland Mitigation Easement**



Reference: GIS property data from King County GIS, 2010. WSDOT easement boundary data, including Schneider Creek OHWM from Triad, 2015. Aerial image 2012 from Earth Explorer, downloaded 2014.




TALASAEA
CONSULTANTS, INC.
 Resource & Environmental Planning
 15020 Bear Creek Road Northeast
 Woodinville, Washington 98077
 Bus (425)861-7550 - Fax (425)861-7549

EXHIBIT 1

WSDOT WETLAND MITIGATION EASEMENT
 SCHNEIDER CREEK AND WETLAND BUFFERS
 GATEWAY-ISSAQUAH
 ISSAQUAH, WASHINGTON

DESIGN	DRAWN DRT	PROJECT 634C
SCALE 1 in : 80 ft		
DATE 17 AUG 2015		1
REVISED		



Allyson Brooks Ph.D., Director
State Historic Preservation Officer

August 13, 2015

Mr. Peter Rosen
Environmental Planner
City of Issaquah
PO Box 1307
Issaquah, WA 98027-1307

In future correspondence please refer to:

Log: 081215-13-KI
Property: City of Issaquah Gateway Apartments (Issaquah Farm)
Re: Archaeology - Survey Requested

Dear Mr. Rosen:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP). We have reviewed the materials forwarded to our office for the proposed project referenced above. The area has a very high to moderate high potential for containing precontact archaeological resources according to the DAHP Statewide Predictive Model. Historic maps show that the project area is situated between two freshwater streams that coalesce to flow into Lake Sammamish. Further, there is a precontact trail system approximately 2,000 feet east of the project area. We also reviewed a background review letter for the project prepared by Tetra Tech. The review letter suggests that there is a low probability of encountering intact archaeological resources because historic agricultural disturbance.

Please keep in mind that archaeological resources are protected under state laws regardless of whether they are disturbed intact. Archaeological sites are protected from knowing disturbance on both public and private lands in Washington States. Both RCW 27.44 and RCW 27.53.060 require that a person obtain a permit from our Department before excavating, removing, or altering Native American human remains or archaeological resources in Washington. Failure to obtain a permit is punishable by civil fines and other penalties under RCW 27.53.095, and by criminal prosecution under RCW 27.53.090.

Chapter 27.53.095 RCW allows the Department of Archaeology and Historic Preservation to issue civil penalties for the violation of this statute in an amount up to five thousand dollars, in addition to site restoration costs and investigative costs. Also, these remedies do not prevent concerned tribes from undertaking civil action in state or federal court, or law enforcement agencies from undertaking criminal investigation or prosecution. Chapter 27.44.050 RCW allows the affected Indian Tribe to undertake civil action apart from any criminal prosecution if burials are disturbed

The scale of the proposed ground disturbing actions would destroy any archaeological resources present. Identification of archaeological resources during construction is not a recommended detection method because inadvertent discoveries often result in costly construction delays and damage to the resource. **We request a professional archaeological survey of the project area be conducted prior to ground disturbing activities.** The completed survey report should be provided to DAHP and the Tribes prior to development. We also recommend consultation with the concerned Tribes' cultural committees and staff regarding cultural resource issues.



There are inventoried historic buildings/structures in the project area. These should have updated Historic Property Inventory Forms prepared by qualified architectural historian and be submitted to DAHP for determination of eligibility for the NRHP and WHR.

Thank you for the opportunity to comment on this project and we look forward to receiving the survey report. Should you have any questions, please feel free to contact me at (360) 586-3088 or Gretchen.Kaehler@dahp.wa.gov.

Sincerely,



Gretchen Kaehler
Assistant State Archaeologist, Local Governments
(360) 586-3088
gretchen.kaehler@dahp.wa.gov

cc. Richard Young, Tulalip Tribes
Rhonda Foster, THPO, Squaxin Island Tribe
Dennis Lewarch, THPO, Suquamish Tribe
Laura Murphy, Archaeologist, Muckleshoot Tribe
Steven Mullen Moses, Cultural Resources, Snoqualmie Tribe
Kerry Lyste, Cultural Resources, Stillaguamish Tribe
Tara Duff, Cultural Resources Director, Stillaguamish Tribe

**Gateway Issaquah
Cultural Resource Investigation**
King County, Washington

Prepared for

THE WOLFF COMPANY
Since 1949

The Wolff Company
911 East Pike
Suite 310
Seattle, Washington
98122

Prepared by

Frank Stipe - Archaeologist

Archaeological Landscapes

Snohomish, WA 98290

August 2015

Abstract

Archaeological Landscapes conducted a cultural resources review and survey of the proposed Gateway Issaquah project in Issaquah, King County, Washington. The proposed project Area of Potential Effect (APE) includes an approximately 40-acre parcel of land (Figure 1) containing two separate residential properties. The goal of this survey is to determine the presence of surface and subsurface archaeological resources as well as historic buildings and structures that are eligible for listing on the National Register of Historic Places (NRHP) on the Gateway Issaquah Property project area; this effort included an archival and literature review, field reconnaissance of the project area through surface and subsurface survey, identification of historic buildings and structures within the project Area of Potential Effect and the production of this report.

Updated Historic Property Forms were completed for three known historic properties on the project area (Appendix C). Archaeological Landscapes identified one archaeological site during field reconnaissance of the project area. All three historic properties were found to be ineligible for the NRHP, the prehistoric site identified during the field survey is ineligible for inclusion in the NRHP.

It is recommended that, in the event cultural resources are encountered during project related excavation activities, all work in the immediate area of the find be halted until a qualified Archaeological Monitor can be summoned to the site to assess and evaluate the find.

From: Karen Walter [KWalter@muckleshoot.nsn.us]
Sent: Thursday, August 20, 2015 4:37 PM
To: Peter Rosen
Cc: Peace, Angie D (DFW)
Subject: Gateway Apartments, SDPI5-00002, Mitigated Determination of Non-Significance

Peter,

Thank you for sending us the SEPA materials; the drainage report; and the Critical Areas Report for the proposed Gateway Apartments project referenced above. We have reviewed this information and offer the following questions and initial comments:

1. We are concerned about the proposed stream buffer elements along Schneider Creek described in the reviewed materials. Specifically, we are concerned that the project proposes to berm the stream using peat materials (from unknown areas); is proposing buffer reductions with a trail in the outer 50' and a reduced planting density. All of these elements will reduce the stream buffer functions necessary to support and maintain salmon habitat, specifically for shade and future wood recruitment. The Critical Areas Report notes that these two functions are lacking for the stream. As we noted in the DEIS and FEIS comments the Central Issaquah Subarea Plan, we recommended that stream buffers be maximized to the fullest extent possible to restore functions. This project, as proposed, is not consistent with this recommendation.

While the trail may be a necessary development requirement in the City code, it should be managed by moving the trail to the farthest extent of the reduced buffer and adding buffer onto the other side of Schneider Creek. The proposed reduced planting density has no basis and will limit the needed restoration opportunities for this stream buffer. Finally, there is no indicated for the true purpose and need for the proposed berm. Per the CAR, the site is no longer considered 100-year floodplain and as such, there should be no flood need for the berm. The inability for the site to establish native trees currently lacking should be based on results from adjacent mitigation sites that demonstrate that trees cannot grow without some soil amendment.

2. Assuming that the project can only go forward with a reduced stream buffer, then the project should be adding wood back to Schneider Creek as partial mitigation for the loss of future wood recruitment, due to the inability to plant at least the regulated stream buffer with trees and to offset the impacts from pumping and discharging the site's stormwater to Schneider Creek. The stream lacks wood and habitat complexity as noted in the CAR; therefore, the project should address these functional impacts and losses.
3. The project needs to provide the technical basis and analysis to support the statement that *"the proposed enhancement of the riparian buffer will create a natural looking berm that will define the future extent of stream meander as Schneider Creek reestablishes a more normal channel (stream bed material and sinuosity)."* How will stream meandering occur without changes to the existing stream channel configuration, no wood in the stream, an undersized culvert upstream at Newport Way, and a reduced stream buffer?
4. We are pleased to see the project is proposed enhanced water quality treatment for the stormwater generated from the site. The project should seek to remove oils and metals from the stormwater to the fullest extent possible as the stormwater will be discharged to a salmon bearing water.

We appreciate the opportunity to comment on this proposal and look forward to the City's responses. We may have additional comments subsequently.

Karen Walter
Watersheds and Land Use Team Leader

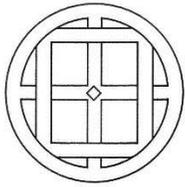
*Muckleshoot Indian Tribe Fisheries Division
Habitat Program
39015 172nd Ave SE
Auburn, WA 98092
253-876-3116*

From: Peter Rosen [<mailto:PeterR@issaquahwa.gov>]
Sent: Thursday, July 30, 2015 1:22 PM
To: sepaunit@ecy.wa.gov; Angela.Peace@dfw.wa.gov; Powell, Susan M NWS; Karen Walter; Erin Slaten; Laura Murphy; 'Kaehler, Gretchen (DAHP)'
Subject: City of Issaquah SEPA Determination - 7-30-2015 - Gateway Apartments

Please find attached a SEPA Determination (issued 7-30-2015) and environmental checklist for the Gateway Apartments; 400 multi-family units on a 30 acre site. Thank you.

Peter Rosen
Environmental Planner

City of Issaquah
Development Services Department
PO Box 1307
Issaquah, WA 98027-1307
p425.837.3094 f425.837.3089



TALASAEA
CONSULTANTS, INC.

Natural Resources Consulting | Environmental Planning & Design

10 September 2015

TAL-634C

Ms. Karen Walter
Watersheds/Land Use Team Leader
Muckleshoot Indian Tribe Fisheries Department
39015-172nd Avenue SE
Auburn, WA 98092

REFERENCE: Issaquah Gateway Project, Issaquah, Washington

SUBJECT: Response to Comments 20 August 2015

Dear Karen:

Thank you for providing your comments and questions regarding the Issaquah Gateway Project. We believe that your review of the Gateway project was based on the critical areas report originally submitted for SEPA. The site design has changed considerably since then. We are including a copy of our most recent critical areas report and mitigation plan for your review. We believe that the information and plan sheets included in our most recent report will likely answer most of your questions concerning the project. However, we will address the comments you have provided.

Your email has four numbered points that we will address. As is typical with our procedure for response letters, we will be providing your comments verbatim in **bold** text. Our responses will follow each comment in indented *Italic* text.

- 1. We are concerned about the proposed stream buffer elements along Schneider Creek described in the reviewed materials. Specifically, we are concerned that the project proposes to berm the stream using peat materials (from unknown areas); is proposing buffer reductions with a trail in the outer 50' and a reduced planting density. All of these elements will reduce the stream buffer functions necessary to support and maintain salmon habitat, specifically for shade and future wood recruitment. The Critical Areas Report notes that these two functions are lacking for the stream. As we noted in the DEIS and FEIS comments the Central Issaquah Subarea Plan, we recommended that stream buffers be maximized to the fullest extent possible to restore functions. This project, as proposed, is not consistent with this recommendation**

As mentioned on Page 27 of the CAR, we intend to use peat material that will be excavated from the Site Development Footprint to construct the berm. This peat

material is located near the north end of the development near the I-90 ditch and right-of-way. This is a naturally-occurring deposit. No material will be imported to create the berms.

The term "berm" is not entirely accurate. It will not be a berm, as currently thought, for flood control. However, we do not have any other term that accurately defines the intended functioning of the structure. The berm, itself, will not be constructed along the edge of Schneider Creek. The initial intent of the berm is to provide additional water quality and habitat protection to the creek. Our report did mention that the berm will be constructed out of peat soils excavated on site. We agree that this will likely not provide a suitable substrate to support the trees that will be planted in the mitigation area. We are revising our mitigation plan to specify that mineral topsoil stripped from the development footprint will also be used in the creation of the berm. This mineral topsoil, along with the peat soil, will provide the suitable substrate for the establishment of trees within the buffer.

A secondary intent of the berm is to help direct the natural deposition of gravel within the existing stream channel northward towards the I-90 right-of-way. Under existing conditions, excessive deposition of gravel from the upper reaches of Schneider Creek has caused the stream to jump its banks and flow over the adjacent fields. The berm will help to confine stream flows to within a stream corridor in which natural channel migration will occur. We estimate that the approximate width of the proposed stream migration zone will be 30 to 40 feet.

The proposed stream buffer enhancement will provide some immediate shade due to the relatively large size of the species we propose planting. We anticipate that the shading provided will be close to 100 percent within 10 years.

Woody debris will initially be provided by the existing WSDOT NGPA, which currently has a significant amount of shrub and tree canopy. At maturity, the stream buffer mitigation plan will likely provide significantly more woody debris recruitment to Schneider Creek compared to the recruitment potential of the WSDOT NGPA. In addition, large woody debris in the form of root wads and logs will be incorporated within the stream corridor near the existing stream banks. We anticipate that some of this material will become incorporated within the stream channel as a more normal stream channel develops through time.

We are aware of the recommendation that stream buffers be maximized to the fullest extent possible to restore functions. The critical functions that Schneider Creek needs from its buffer is water quality protection, shading, and recruitment of organic material. We believe that the proposed berm will provide water quality protection and improvement comparable to a standard buffer width. The City of Issaquah is requiring that the inner portion of the buffer be planted at a relatively high density compared with the remainder of the stream buffer. The trees and shrubs planted in the inner portion of the buffer will begin to provide organic material in support of the

macrobenthic community by the first year after planting.

While the trail may be a necessary development requirement in the City code, it should be managed by moving the trail to the farthest extent of the reduced buffer and adding buffer onto the other side of Schneider Creek. The proposed reduced planting density has no basis and will limit the needed restoration opportunities for this stream buffer. Finally, there is no indicated for the true purpose and need for the proposed berm. Per the CAR, the site is no longer considered 100-year floodplain and as such, there should be no flood need for the berm. The inability for the site to establish native trees currently lacking should be based on results from adjacent mitigation sites that demonstrate that trees cannot grow without some soil amendment.

*The trail has been placed in the outer portion of the buffer. The mitigation for buffer reduction is in the form of buffer addition, which will occur on both sides of the Schneider Creek buffer (see **Sheet W1.1**). The reduced planting density is proposed for the development side of the buffer and separated from the high-density planting by the berm. The planting densities reflect City of Issaquah mitigation requirements.*

As it was stated earlier in our response to Item 1, the term “berm” is used for the proposed terrain feature for lack of a better term. It is not intended to protect any property against floodwaters. Rather, it is intended to provide protections and buffer functions to Schneider Creek that would be limited due to the reduced buffer width. It is intended to be a gently-sloped feature, rather than the stereotypical steep-walled berm that lines many of our major rivers. It will be densely planted with native trees and shrubs to provide shading and organic material recruitment that is currently lacking within the reach of Schneider Creek from the WSDOT NGPA north to the I-90 right-of-way.

It is not reasonable to compare the Schneider Creek buffer site to other adjacent mitigation areas in their ability to support trees. The Issaquah Gateway site has been used and maintained as a farm for decades, which has actively prevented the establishment of trees. The quality of the soil within the Schneider Creek buffer is good and will not be removed during mitigation. The proposed berm will be constructed from top soil and peat soils excavated from the development footprint and will be well suited for supporting trees. Without active farm management, trees do, and have, become established. This is evident for the reach of Schneider Creek within the I-90 right-of-way, which has a significant amount of tree canopy.

- 2. Assuming that the project can only go forward with a reduced stream buffer, then the project should be adding wood back to Schneider Creek as partial mitigation for the loss of future wood recruitment, due to the inability to plant at least the regulated stream buffer with trees and to offset the impacts from pumping and discharging the site’s stormwater to Schneider Creek. The**

stream lacks wood and habitat complexity as noted in the CAR; therefore, the project should address these functional impacts and losses.

It is our intention that Schneider Creek will eventually incorporate woody debris, especially large woody debris. We anticipate that the WSDOT NGPA will provide some smaller pieces of woody debris as a natural function of its vegetative canopy. As our buffer mitigation area matures, it will also provide smaller pieces of woody debris. We are also anticipating that Schneider Creek will begin to establish a more natural sinuosity over time as gravel from upgradient washes onto the Gateway reach of the creek. This material will likely begin to fill up the existing channel (which has been actively ditched and maintained during typical farming practices). This movement of material does occur on the site and has caused water to flood overbank into the adjacent fields. We anticipate that the constructed berm will help direct the natural filling of the existing channel towards the I-90 right-of-way. As the existing channel begins to fill, we anticipate that normal erosive stream processes will begin to form a more sinuous channel and will begin to incorporate the large woody debris that will be installed within the stream corridor.

- 3. The project needs to provide the technical basis and analysis to support the statement that “the proposed enhancement of the riparian buffer will create a natural looking berm that will define the future extent of stream meander as Schneider Creek reestablishes a more normal channel (stream bed material and sinuosity).” How will stream meandering occur without changes to the existing stream channel configuration, no wood in the stream, an undersized culvert upstream at Newport Way, and a reduced stream buffer?**

A considerable amount of stream bed material currently flows downgradient from the upper reaches of Schneider Creek. This has resulted in the channel for Schneider Creek immediately downstream of the WSDOT NGPA to fill up and cause the creek to jump its banks. The previous owner of the property frequently had to clean out the channel so as to prevent the creek from flooding his fields. We are anticipating that this existing movement of gravel will continue and intend on utilizing it and passively directing it to help create the more natural stream channel (as opposed to the incised and constructed channel that now exists). We anticipate that Schneider Creek will begin to create a new, more sinuous channel as the existing incised channel fills with gravel. We also anticipate that Schneider Creek will eventually incorporate some of the large woody debris that will be installed along its existing banks as the more natural channel develops.

We are not under any illusion that this will occur overnight. The changes we are anticipating will take time to develop. However, we believe that allowing natural conditions to re-establish themselves is a better approach than attempting to force or expedite such changes on to Schneider Creek. Allowing natural processes to work obviates the need to remove and exclude all fish from the work area, the need to monitor and maintain the “enhanced” channel for a decade or more, and to devise

contingency plans when the “enhanced” channel does not meet mitigation objectives.

- 4. We are pleased to see the project is proposed enhanced water quality treatment for the stormwater generated from the site. The project should seek to remove oils and metals from the stormwater to the fullest extent possible as the stormwater will be discharged to a salmon bearing water.**

*The enhanced stormwater treatment that the Client is proposing will utilize the best available technology to enhance water quality, which will include removal of oils and metals from the stormwater (see **Issaquah Gateway Apartments - Introductory Drainage Report**, prepared by Triad Associates, Inc., 25 November 2014 and as revised on 22 April 2015). The technology will meet or exceed current Washington State stormwater treatment requirements.*

We anticipate that the buffer enhancements we are providing for Schneider Creek, as well as allowing natural stream processes to occur will significantly improve fish habitat potential from the I-90 right-of-way south to the Newport Way culvert. Should this culvert be replaced in the future with something that is fish-passable, the population of anadromous fish that currently utilized the onsite reach of Schneider Creek will have access to nearly 3,000 feet of additional stream habitat (based on LIDAR evaluation of stream gradient).

We trust that the most recent critical areas report and conceptual mitigation plan and our responses to your comments will be sufficient to address any concerns you have for this project.

Sincerely,

TALASAEA CONSULTANTS, INC.

Digital Signature. Not for use on financial or legal documents.

Digital Signature. Not for use on financial or legal documents.

David R. Teesdale, PWS
Senior Wetland Ecologist.

Attachment: Critical Areas Study and Detailed Conceptual Mitigation Plan –
Issaquah Gateway (revised 14 July 2015)

From: Peter Rosen
Sent: Thursday, September 10, 2015 2:27 PM
To: Connie Marsh
Cc: Amy Tarce; Lucy Sloman
Subject: RE: MDNS for Gateway project

Connie - Thanks for your comments. The City Council has approved a lower speed limit on Newport Way. A new traffic study will be prepared using the lower speed limit. The traffic mitigation in the SEPA determination is a performance measure - *"The site access and intersection improvements shall maintain the City's adopted level of service (LOS) standard "D." The City is further evaluating whether the intersection should be signalized, unsignalized, or improved with a roundabout based on traffic operations and safety as well as pedestrian access and safety.*" This mitigation measure will also apply to the revised traffic report and would still adequately address traffic impacts. Therefore, I don't anticipate re-evaluating traffic under SEPA or extending the SEPA comment period. Thank you.

Peter Rosen
Environmental Planner

City of Issaquah
Development Services Department
PO Box 1307
Issaquah, WA 98027-1307
p425.837.3094 f425.837.3089

-----Original Message-----

From: Connie Marsh
Sent: Monday, August 17, 2015 7:29 AM
To: Peter Rosen
Subject: MDNS for Gateway project

Hi Peter,

I have been hearing that the deadline of the MDNS comment period has been extended however I have not seen that change anywhere so far.

In any case I would like to provide this comment.

The SEPA MDNS does not appropriately address traffic impacts as the traffic study is using a 40mph speed limit to define the impacts. This speed limit is highly likely to be reduced changing the results of that study. Please extend the comment period to a point where a new traffic study can be done using the future new road speed limit and standards and that study can be distributed for a reasonable length of time to the public for comment.

Thanks,

Connie Marsh

Please put this in the public record.

To Peter Rosen

Issaquah Development Services Department
1715 12th Avenue NW
P.O. Box 1307, Issaquah, WA 98027-1307
(425) 831-3094

Subject: Citizen comments on SDP15-000002, Gateway Apartments

Please find the following comments / responses to the Gateway Apartment (Mull) SEPA that have been collected from residents of Summerhill, Sammamish Point Terra Highlands, Sammamish Hills, Monahan HOA's.

Over riding site issues

1. This SEPA is very broad sweeping in the answers and the City tables or studies which support the statements not clearly listed so be able to reference. The actual parcels and parcel acres and developable acres for this "phase 1" are not consistently documented thru out the various studies are reference in the Staff report. Some places in the reports like with credit for public-park projects are combined yet not for others. Very confusing and do not understand with reference to Schneider Creek Stream Corridor.

Tibbetts Creek is to be relocated as part of the Rowley Hyla Project when and where how does this impact the buffer areas, park area and the multi modal trail. When will this trail actually be viable safe trail connection for present and future residence?

2. How does this trail impact the Anti Aircraft Stream Corridor is within 200 ft of this project but not listed?

3. Development is in according to Issasquah 2011 flood plan does show property is part the 100 flood plan and at least have is saturated annually per FEMA and City studies.

<http://www.ci.issaquah.wa.us/DocumentCenter/View/1050>

4. If Tibbetts is to be relocate what will the flood plan look like then?

5. What is the actual acreage of each project 1 and 2? Why are they being separated and not as they both will impact Schneider Creek and Traffic Impact?

6. Why are the projects combined for the park credit but not combined for the SEPA and stormwater permit as Schneider Creek Corridor is in both of these projects?

7. The City in both the CIP and City Council 2015 goals state that the entire stream and wildlife corridors are to be studies and enhance why is this Gateway Apartment Project only looking a stream buffers and not Corridor for all the 3 streams in this project?

<http://your.kingcounty.gov/dnrp/library/water-and-land/salmon/kokanee/kokanee-workgroup/category-2-streams-kokanee-blueprint.pdf#page=6>

<http://www.kingcounty.gov/environment/animalsAndPlants/salmon-and-trout/kokanee.aspx>

8. Has the City of Issaquah studied the total existing stream discharge from the Bentley House project and the build out of the Terra Highlands II on Pine View Dr all which drain into Schneider? Or the all the proposed projects that may effect Schnieder including the redesign of Newport Way?

I can only find a 2002 storm water study and the CIP storm water plan did not study this area of the City only the core down town area.

9. Same hold true for the east end of the development and Tibbetts as the City of Issaquah studied the total existing stream discharge from the Talus expansion, the new development planned on upper Tibbetts Valley and Goodes Corner, Bergsman Anti Aircraft Creek relocation or Riva project and other projects in the pipe line? CIP stormwater study did not this area in that study nor did the Rowley Hyla Project. Nor had the redesign of Newport Way been study for what impact it may on Tibbetts Stream Corridor and flooding

Current Sammamish Point residents are experiencing sinking of their building foundations. There has been storm water flowing over Newport Way from Schneider Creek and the uphill wetlands adjacent to Spyglass with heavy rains. Issaquah Public Works last spring was investigating this issue last spring but I have seen no reports issued on their findings.

Also currently Sammamish Plot Agreement with the City supports a 10 ft screening easement on the Mull property which is not mentioned in the Staff or developers reports. Grading and leveling for the 2.2 acre public park and the multimodal trail which is proposed to abut up to this existing development could greatly jeopardize all the Sammamish Point foundation and road ways. We see no mention of this in the SEPA or project report that would protect this buffered area during or after construction. See site plan for Sammamish Pointe parcel on KC parcel view OPP199712011688.pdf already submitted to A. Tarce and P Rosen.

Central Area Plan studies / EIS did not include this section of Newport Way road conditions, stormwater, wildlife or stream Corridors in its studies so all need to be by study the City to support the staff conclusions.

City has not updated the Tibbetts East Cougar Subarea Plan the area which is south of to CIP area and whose streams and wildlife corridors connect to this project.

CIP Village standards are not clearly listed or detail in the Staff report and thus the SEPA needs to have tables and documented pages that support up staff board statements.

“The project is adjacent to Newport Way, an important regional cycling route and part of the Mountains to Sound greenway trail network. A new shared-use regional path will provide pedestrian and bicycle access between Newport Way and the future Rowley Properties Hyla Crossing project to

Issaquah Farm SEPA Environmental checklist (WAC 197-11-960) April 2015 Page 17 of 23

the east, offering a low-traffic alternative to Newport Way for users navigating the Mountains to Sound Greenway.”

Currently this regional path way corridor is identified by the Mountains to Sound Greenway. The path way in current state is identify as unsafe and in need of improvement. Currently the City of Issaquah has no funds identity in its 20 year plan to improve this regional pathway. The City also currently has no contract in place or according to the Rowley Properties Hyla Crossing agreement if something is not changed they can to nothing about this trail to connect this Gateway project to Central area for 30 years.

b. *“What views in the immediate vicinity would be altered or obstructed? [help]*

In general, views across the site will be obstructed by new buildings. This includes views to Lake Samammish and Cougar Mountain.

The two 5-story buildings located on the northern edge of the site would be prominently visible by people traveling in vehicles on I-90, eastbound traffic in particular. However, this visibility reflects City goals to establish a sense of arrival to Issaquah for motorists traveling east on I-90. Proposed measures to reduce or control aesthetic impacts, if any: [help]

The project’s two five-story residential buildings were designed with a distinctive architecture and intentionally placed at the north edge of the site to create a sense of arrival and establish an urbanscale for Central Issaquah, primarily for motorists traveling east on I-90.”

The Central Area Plan for this Gateway project was not to block the view of the regional landscape mountains at the western gateway with 5 story building but to have stair step buildings with openspace that would blend into the hill side and draw the views up to the forested mountain tops and reflect a Village area not a densely populated buildings without and open green spaces. This area was to blend in with the existing single family homes in the area with possible small business and village amenities. Buildings were to reflect. This area was not to reflect the denser more compact area of the downtown area with already has no green spaces but reflect a welcoming Village atmosphere.

c. *“Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]”*

Note with the current definition in the CIP for parkway (**not** defined as such in the developers traffic study) does not allow for safe crosswalks. Calls for a narrow high speed two lane road. This is does not encourage or allow existing citizens to safely access on foot or motor vehicle the proposed small park. Most of the development along Newport Way is on the south side of the road. Mitigation to redesign Newport for safe bike and foot travel along Newport Way and across for present developments if this park is to work. Also note a 2.2 acres park is relative small to handle all the new development plus existing for the Western end of Newport Way.

SEPA response

4. Wildlife Habitat - Eagles and Osprey both nest in the vicinity and use this open space a feeding area. Pileated, flickers and downy woodpeckers are residence of the area. Although reduce in number do to

the increase in coyotes, quail also have been observed by Residences of the area have observed both over the years. Black bear, bob cat, cougar and deer all use this property for feeding on berries and hunting grounds and have been observed. Concern that there appears to be no plan to address wildlife corridor along Schneider Creek and only a brief mention on Tibbetts and that adjacent wetlands. All walkway over the streams need to be elevated to the 10 ft for wild life passages. Wetland and stream buffs need to be protected from this dense population of this development and would look for some more elevated railed interactive/ interpretive walkways along so as to education and monitoring by the residences so these area do not become play spaces and degraded.

--Sept 8 2015 _"The one thing I thought they missed is that juvenile Chinook salmon can also be present in Schneider Creek. They have been documented downstream of I-90 and could possibly occur upstream but no one has looked that I'm aware of. Juvenile Chinook salmon also use the lower end of Tibbetts Creek. Chinook salmon are a federally protected species and should have been addressed in their document. I've attached our research paper that lists Schneider and Tibbetts creeks.

Roger Tabor
U.S. Fish and Wildlife Service
Lacey, Washington

5. Stormwater The pre Site assumptions as this SEPA state are not correct and given this land was once in a flood plan and City studies so the ground to be saturated normally but with old drain field system that was install to drain the water being disturbed during construction the statement that the study underestimated the flow would appear to be a given. Also the study did not mention the existing known problems of the draining up land wetlands and Schneider Creek flowing over Newport Way in the heavy rainy season. These issues need to be studies for impact to this project and any improvements to Newport Way since the entrance is located in this area and is very close to the protected area on the northside of Newport Way

6. Noise The placement of the new trail and park is adjacent to the property line and backyards of SammPointe residence. Current standards for the single family area have required 20 screening on both sides of lot lines. This should be a min. based on the public trail and the new multi story units proposed along this south lot line.

The develop has not stated any additional mitigation for future residence of the two 5 story buildings they are using to block noise from I90 at least triple pain window, air-conditioning units, and additional insulation for noise abatement need to be done. Also some light screen on the window to reduce headline glare etc.

8. Traffic The traffic study done by the developer is based on **40 mph** and not the current planned road design. New speed limit is 30mph and the City traffic study which for this stretch has not been completed.

New traffic study need to be done with new speed and new design when City study is known.

Current CIP road standards do not fit with the flow of the pedestrians and bikes for this 2.3 mile stretch were over have of the residence will be on the southside of the road and need safe access to the walking

path or sidewalks on the north. The s curves along a lot of the roadway are not called out for siteline for this entrance. The traffic study did not supply any mitigation for the Samm.Pointe citizens who will be impact by traffic back up blocking their entrance on the west side of their development which is heavily used currently.

-The impact of the 400 plus units should require **two** entrances to the development and a more direct route to I90. Thus the existing connection on Poplar needs to be made not only for emergency vehicles but construction and a permanent entrance to this development. This road access was identified in the City CIP Pickering meetings and the Citizen Task force meeting if mid density verses business or private homes were to be allowed.

No trucks are currently allowed on this already congested stretch of Newport Way nor is there any on street parking with the walking path on the north side the majority of construction traffic needs to be required use this Poplar entrance to reduce the impact to current residence and reduce safety issues on Newport Way.

Several school bus stops are along this area and step made to be made to protect these stops for construction and make certain these stops.

New ones required are made safe for the children. Exhaust and noise from trucks using this corridor to access the site would impact the health of all the current residence.

City need to make certain safe calming measures are done for existing road before construction is started and new residence move for mitigation for existing residence along Newport Way

9. Bicycle and Pedestrian Facilities City need to make certain if the new mutil model trail is build it has agreement for who is to maintain and have money in budget if City is to assume. Trail need to be fully functioning thru Hyla Development and identify who is paying if Tibbetts Creek is relocated later and rebuild is needed. Fund for safe sidewalks and bike routes along Newport Way to the transit center must be in place since not regional transit is servicing this area and residents need safe way into Issaquah especially on dark rainy mornings

10. Public Services the developer should be assessed a ongoing mitigation service fee for public service since it is know that apartments have higher crime and requirements for public service than single family owner occupied units which is in the surrounding area. Need to be made to protect Sammamish Point and Spyglass from overflow parking issues and noise from the park and apartment club house.

11. Grading of the area adjacent to Sammamish Point need to be closely studies and mitigated to make certain that the foundation of the buildings are not compromised by the grading or the continue sidling for saturation during the raining season in this graded area.

We are available to clarify any of the above comments.

Mary Lynch, NW Newport Way Neighborhood Community Group

2690 NW Oakcrest Drive

Issaquah WA 98027

SAMMAMISH POINTE PHASE 4, A CONDOMINIUM A PORTION OF THE SOUTHWEST QUARTER OF SECTION 20, TOWNSHIP 24 NORTH, RANGE 6 EAST, WILLAMETTE MERIDIAN CITY OF ISSAQUAH, KING COUNTY, WASHINGTON

LEGAL DESCRIPTION

THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 20, TOWNSHIP 24 NORTH, RANGE 6 EAST, W.M., IN KING COUNTY, WASHINGTON, LYING NORTHEASTERLY OF THE RIGHT-OF-WAY OF NEWPORT ISSAQUAH ROAD, ALSO KNOWN AS STATE ROAD NO. 2, ALSO KNOWN AS SOUTHEAST NEWPORT WAY, DESCRIBED AS FOLLOWS:
COMMENCING AT THE INTERSECTION OF THE SOUTH LINE OF SAID SUBDIVISION AND THE NORTHEASTERLY MARGIN OF SAID NEWPORT ISSAQUAH ROAD, SAID POINT BEGINS ON A CURVE CONCAVE TO THE SOUTHWEST, THE RADIUS POINT OF WHICH BEARS SOUTH 56°06'18" WEST 984.26 FEET;
THENCE NORTHWESTERLY ALONG SAID NORTHEASTERLY MARGIN ALONG SAID CURVE, AN ARC DISTANCE OF 289.77 FEET THROUGH A CENTRAL ANGLE OF 154°2'15";
THENCE NORTH 50°35'57" WEST, CONTINUING ALONG SAID NORTHEASTERLY MARGIN, 24.66 FEET TO THE TRUE POINT OF BEGINNING;
THENCE LEAVING SAID NORTHEASTERLY MARGIN AND BEARING NORTH 39°24'03" EAST, 67.09 FEET;
THENCE NORTH 13°10'51" EAST, 71.87 FEET;
THENCE NORTH 32°10'34" EAST, 150.35 FEET;
THENCE NORTH 63°21'40" WEST, 61.39 FEET;
THENCE NORTH 75°13'13" WEST, 52.83 FEET;
THENCE SOUTH 62°04'11" WEST, 10.26 FEET;
THENCE SOUTH 01°36'56" WEST, 36.23 FEET TO A POINT OF CURVATURE;
THENCE SOUTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 40.00 FEET THROUGH A CENTRAL ANGLE OF 81°30'32", AN ARC DISTANCE OF 56.90 FEET;
THENCE SOUTH 83°07'28" WEST, 24.80 FEET TO A POINT OF CURVATURE;
THENCE NORTHWESTERLY ALONG THE ARC OF A CURVE TO THE RIGHT HAVING A RADIUS OF 40.00 FEET THROUGH A CENTRAL ANGLE OF 66°01'09", AN ARC DISTANCE OF 46.09 FEET;
THENCE NORTH 30°51'23" WEST, 24.71 FEET;
THENCE NORTH 33°03'25" WEST, 20.82 FEET;
THENCE NORTH 55°34'54" WEST, 60.57 FEET;
THENCE NORTH 07°55'27" EAST, 56.85 FEET;
THENCE NORTH 43°23'04" WEST, 9.52 FEET;
THENCE NORTH 46°08'48" WEST, 57.27 FEET;
THENCE NORTH 33°38'33" WEST, 70.42 FEET;
THENCE NORTH 76°17'32" WEST TO A LINE 60.00 FEET EAST OF AS MEASURED PARALLEL WITH AND PERPENDICULAR TO THE EAST LINE OF THE RECORD OF SURVEY RECORDED UNDER RECORDING NUMBER 840519004, RECORDS OF KING COUNTY, WASHINGTON;
THENCE SOUTH ALONG SAID LINE TO THE NORTHEASTERLY MARGIN OF SAID NEWPORT ISSAQUAH ROAD;
THENCE SOUTHEASTERLY ALONG SAID NORTHEASTERLY MARGIN TO THE POINT OF BEGINNING;
BEING A PORTION OF ADJUSTED PARCEL 4 OF CITY OF ISSAQUAH LOT LINE ADJUSTMENT, NO. 95-04, AS RECORDED UNDER KING COUNTY RECORDING NUMBER 9604309004.
(ALSO KNOWN AS PHASE IV OF SAMMAMISH POINTE BINDING SITE PLAN, ACCORDING TO THE PLAN FILED IN VOLUME 135 OF CONDOMINIUMS, PAGES 66 THROUGH 68, IN KING COUNTY, WASHINGTON)

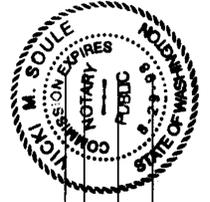
DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT WE, THE UNDERSIGNED, OWNERS IN FEE SIMPLE OF THE REAL PROPERTY DESCRIBED HEREIN, HEREBY DEDICATE THE REAL PROPERTY DESCRIBED IN THIS SURVEY MAP AND THESE PLANS FOR CONDOMINIUM PURPOSES. THE DRIVES, WALKS, STREETS, GROUNDS AND OTHER AREAS DESCRIBED HEREIN ARE NOT DEDICATED TO THE PUBLIC, BUT ARE PRESERVED FOR THE EXCLUSIVE USE AND BENEFIT OF THE UNIT OWNERS, AS PART OF THE COMMON ELEMENTS, TO THE EXTENT AND IN THE MANNER SET FORTH IN THE DECLARATION. WE, THE UNDERSIGNED OWNERS OF THE PROPERTY, HEREBY CERTIFY THAT ALL STRUCTURAL COMPONENTS AND MECHANICAL SYSTEMS OF ALL BUILDINGS CONTAINING OR COMPRISING UNITS HEREBY CREATED ARE SUBSTANTIALLY COMPLETED. THE SURVEY MAP AND THESE PLANS OR ANY PORTION THEREOF SHALL BE RESTRICTED BY THE TERMS OF THE DECLARATION FILED THE 24th DAY OF December, 1997, RECORDS OF KING COUNTY, WASHINGTON UNDER RECORDING NO. 97126116 87

IN WITNESS WHEREOF WE HAVE SET OUR HANDS AND SEAL
SAMMAMISH POINTE, L.L.C., A WASHINGTON, LIMITED LIABILITY COMPANY
BY: POLYGON NORTHWEST COMPANY, A WASHINGTON, GENERAL PARTNERSHIP
ITS: MANAGER
BY: BRENTVIEW, INC., A WASHINGTON CORPORATION
ITS: MANAGING PARTNER
BY: Gary A. Young
Senior Vice President

ACKNOWLEDGMENTS

STATE OF WASHINGTON } S.S.
COUNTY OF KING }
ON THIS 24th DAY OF November A.D., 1997, BEFORE ME, THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED Gary A. Young TO ME KNOWN TO BE THE Vice President OF BRENTVIEW, INC., THE MANAGING PARTNER OF POLYGON NORTHWEST COMPANY, THE MANAGER OF SAMMAMISH POINTE, L.L.C., A WASHINGTON LIMITED LIABILITY COMPANY, AND ACKNOWLEDGED THAT SHE IS AUTHORIZED TO SIGN THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE THE FREE AND VOLUNTARY ACT AND DEED OF SAID LIMITED LIABILITY COMPANY FOR THE USES AND PURPOSES IN THIS INSTRUMENT.
Vicki M. Soule
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON, RESIDING AT Borhedi
PRINTED NAME OF NOTARY PUBLIC Vicki M. Soule
MY COMMISSION EXPIRES 8/29/98



LAND SURVEYORS' CERTIFICATE

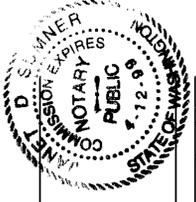
I HEREBY CERTIFY THAT THESE PLANS FOR SAMMAMISH POINTE PHASE 4, A CONDOMINIUM, ARE BASED UPON AN ACTUAL SURVEY OF THE PROPERTY DESCRIBED HEREIN AND THAT THE COURSES AND DISTANCES ARE SHOWN ACCURATELY THEREON AND THAT THESE PLANS ACCURATELY DEPICT THE LOCATION AND DIMENSIONS OF THE UNIT AS-BUILT. THESE PLANS ARE PER THE BASIC REQUIREMENTS, PURSUANT TO RCW 64.34.262, AND THAT ALL HORIZONTAL AND VERTICAL BOUNDARIES OF THE UNITS ARE SUBSTANTIALLY COMPLETED IN ACCORDANCE WITH SAID PLANS.

DENNIS J. SALTYS, PLS 27328
Dennis J. Saltys 11/29/97

LAND SURVEYORS' VERIFICATION

STATE OF WASHINGTON } S.S.
COUNTY OF KING }
DENNIS J. SALTYS, BEING FIRST ON OATH DULY SWORN, STATES THAT HE IS THE REGISTERED PROFESSIONAL LAND SURVEYOR SIGNING THE ABOVE CERTIFICATE, THAT HE HAS EXAMINED THESE PLANS AND SURVEY MAP, AND BELIEVES THE CERTIFICATE TO BE A TRUE STATEMENT.

Dennis J. Saltys 11/29/97
DENNIS J. SALTYS, REGISTERED PROFESSIONAL LAND SURVEYOR NUMBER 27328
SUBSCRIBED AND SWORN TO BEFORE ME ON THIS 24th DAY of November 1997.



Dennis J. Saltys
NOTARY PUBLIC IN AND FOR THE STATE OF WASHINGTON, RESIDING AT King County
PRINTED NAME OF NOTARY PUBLIC Dennis J. Saltys
MY COMMISSION EXPIRES 11-29-99

APPROVAL

EXAMINED AND APPROVED THIS 1st DAY OF December, 1997.
Scott Aoble
KING COUNTY ASSESSOR
Debra A. Clark
DEPUTY KING COUNTY ASSESSOR

RECORDING CERTIFICATE

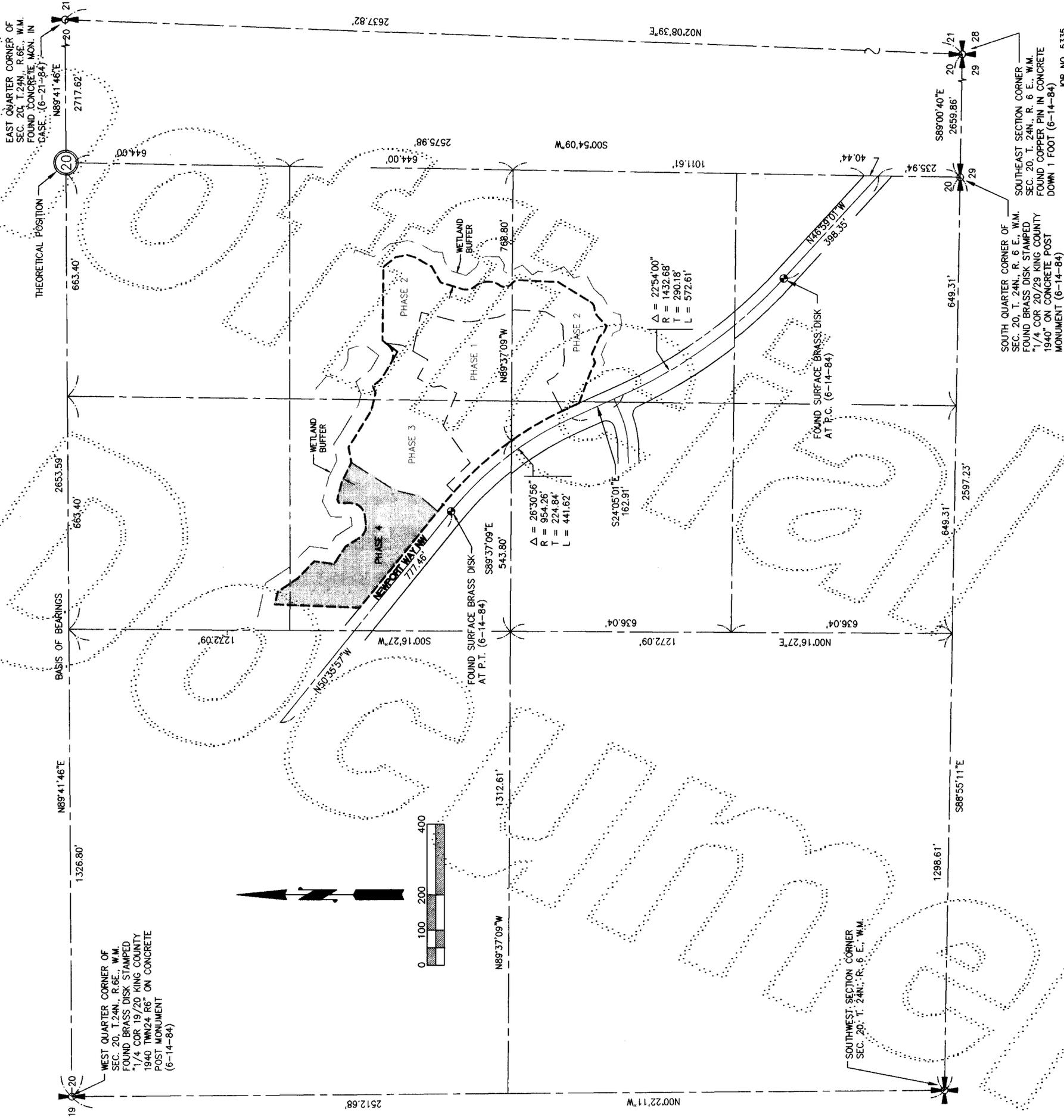
FILED FOR RECORD AT THE REQUEST OF Brentview Inc THIS 1st DAY OF Dec., 1997
AT 5:30 MINUTES PAST 2:00 O'CLOCK AND RECORDED IN VOLUME 135 OF CONDOMINIUMS, PAGES 66 TO 68, RECORDS OF KING COUNTY, WASHINGTON.
DEPARTMENT OF RECORDS AND ELECTIONS
John Albert
MANAGER
RECORDING NUMBER 97126116 87
SUPERINTENDENT OF RECORDS
Uli Wind

Barghausen Consulting Engineers, Inc.
Civil Engineering, Land Planning, Surveying, Environmental Services
18215 72nd Avenue South Kent, WA 98032
Telephone: (206) 251-6222 Fax: (206) 251-8782
NE 1/4 & SE 1/4 OF SW 1/4, SEC. 20-24N-6E
SHEET 1 OF 8



SAMMAMISH POINTE PHASE 4, A CONDOMINIUM

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 20, TOWNSHIP 24 NORTH, RANGE 6 EAST, WILLAMETTE MERIDIAN CITY OF ISSAQUAH, KING COUNTY, WASHINGTON



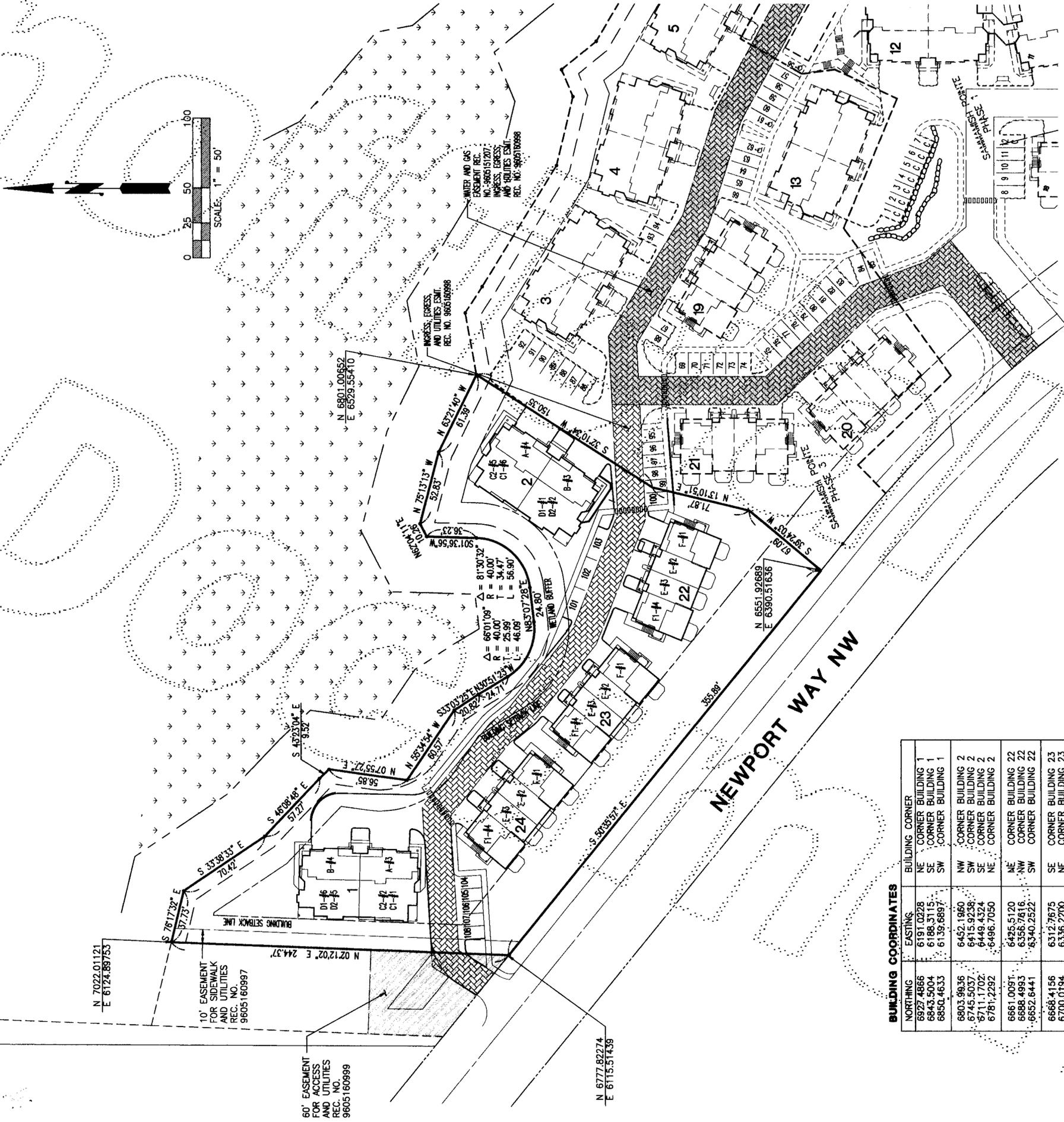
Barghausen Consulting Engineers, Inc.
 Civil Engineering, Land Planning, Surveying, Environmental Services
 18215 72nd Avenue South, Kent, WA, 98032
 Telephone: (206) 251-6222 Fax: (206) 251-8782
 JOB NO. 5335

NE 1/4 & SE 1/4 OF SW 1/4, SEC. 20-24N-6E
SHEET 2 OF 8

CONTROL SKETCH

SAMMAMISH POINTE PHASE 4, A CONDOMINIUM

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 20,
TOWNSHIP 24 NORTH, RANGE 6 EAST, WILLAMETTE MERIDIAN
CITY OF ISSAQUAH, KING COUNTY, WASHINGTON



BUILDING COORDINATES

NORTHING	EASTING	BUILDING CORNER
6927.4866	6191.0228	NE CORNER BUILDING 1
6843.5004	6186.3115	SE CORNER BUILDING 1
6850.4633	6139.6897	SW CORNER BUILDING 1
6803.9936	6452.1960	NW CORNER BUILDING 2
6745.5037	6415.9238	SE CORNER BUILDING 2
6711.1702	6449.4324	SW CORNER BUILDING 2
6781.2292	6496.7050	NE CORNER BUILDING 2
6661.0097	6495.5120	NE CORNER BUILDING 22
6688.4993	6366.7616	NW CORNER BUILDING 22
6652.6441	6340.2522	SW CORNER BUILDING 22
6668.4156	6312.7675	SE CORNER BUILDING 23
6700.0194	6336.2200	NE CORNER BUILDING 23
6747.1567	6278.9239	NW CORNER BUILDING 23
6780.1441	6176.7828	SW CORNER BUILDING 24
6609.2891	6203.3984	NW CORNER BUILDING 24
6762.2633	6260.5185	NE CORNER BUILDING 24



Barghausen Consulting Engineers, Inc.
Civil Engineering, Land Planning, Surveying, Environmental Services
18215 72nd Avenue South Kent, WA, 98032
Telephone: (425) 251-6222 Fax: (425) 251-8782

NE 1/4 & SE 1/4 OF SW 1/4, SEC. 20-24N-6E

BOUNDARY, EASEMENTS, BUILDING COORDINATES

SHEET 3 OF 8

JOB NO. 5335

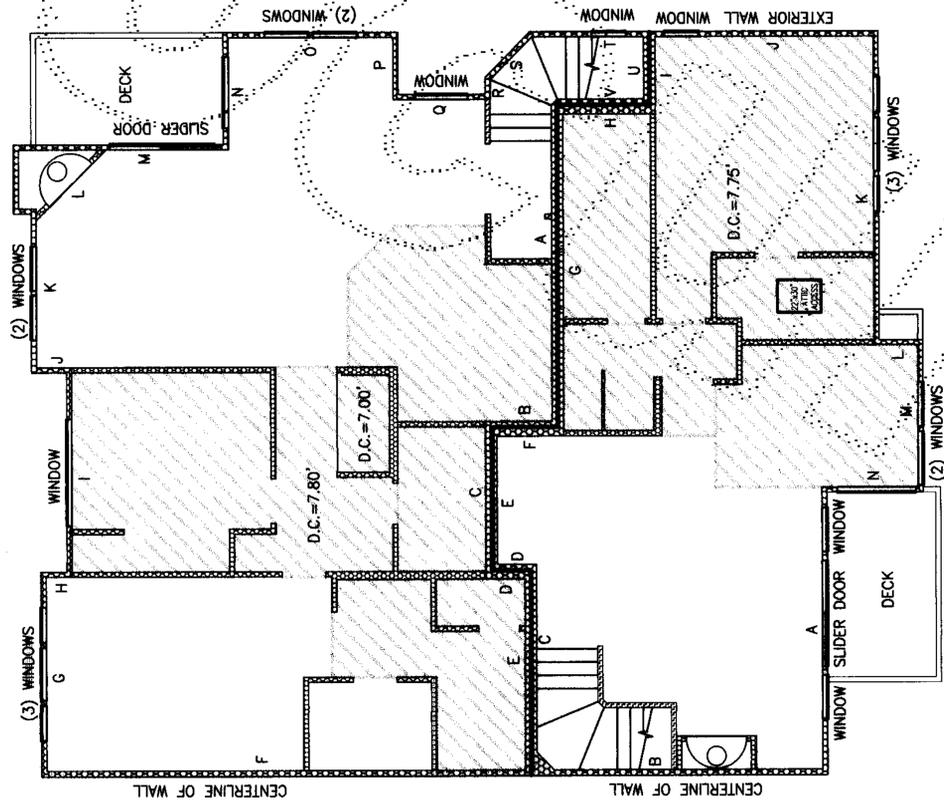
VOLUME/PAGE

SAMMAMISH POINTE PHASE 4, A CONDOMINIUM

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 20, TOWNSHIP 24 NORTH, RANGE 6 EAST, WILLAMETTE MERIDIAN CITY OF ISSAQUAH, KING COUNTY, WASHINGTON

UNIT TYPE C2
1" = 8'
SECOND FLOOR PLAN

BUILDING 1, UNIT 2
BUILDING 2, UNIT 5

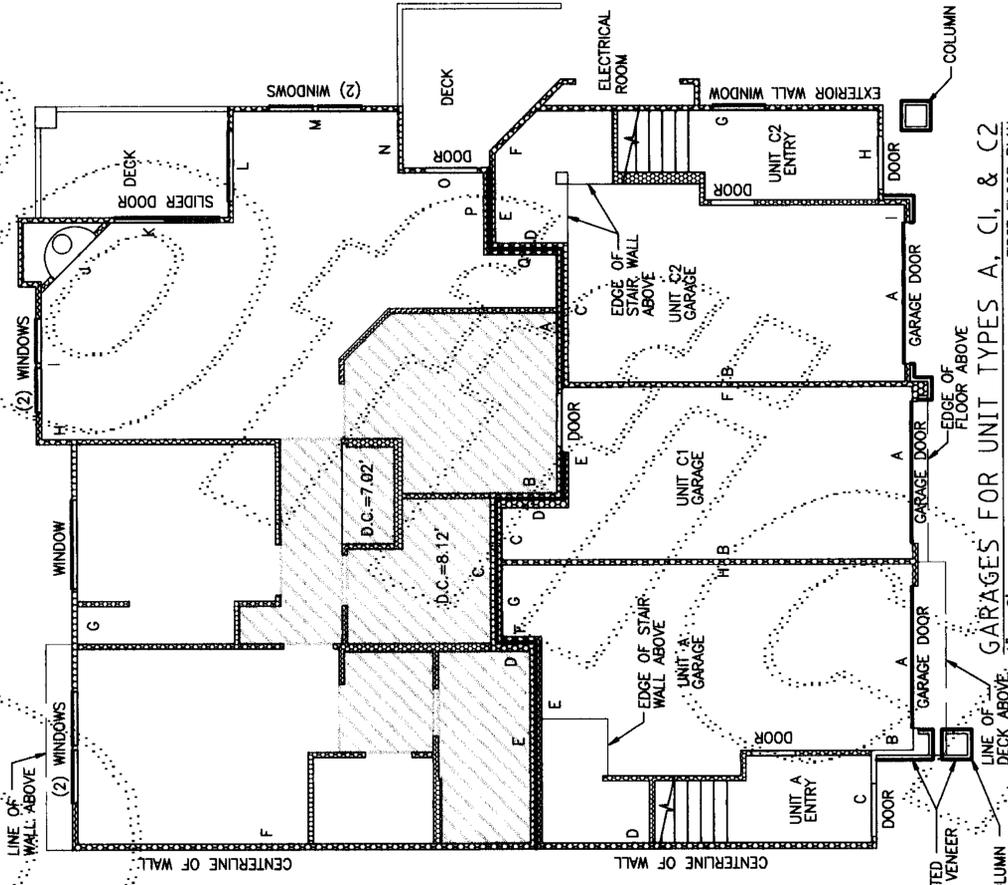


UNIT TYPE A
1" = 8'
SECOND FLOOR PLAN

BUILDING 1, UNIT 3
BUILDING 2, UNIT 4

UNIT TYPE C1
1" = 8'
FIRST FLOOR PLAN

BUILDING 1, UNIT 1
BUILDING 2, UNIT 6



GARAGES FOR UNIT TYPES A, C1, & C2
1" = 8'

UNIT TYPE A
BUILDING 1, UNIT 3
BUILDING 2, UNIT 4

UNIT TYPES C1
BUILDING 1, UNIT 1
BUILDING 2, UNIT 6

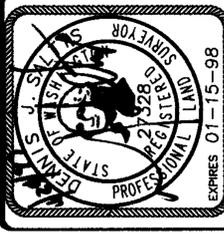
UNIT TYPE C2
BUILDING 1, UNIT 2
BUILDING 2, UNIT 5

D.C. = DROPPED CEILING

NOTES:

1. UNLESS OTHERWISE NOTED OR SHOWN HEREON, DIMENSIONS ARE ON THE INNER FACE OF THE OUTER WALLS OF THE UNIT. INNER WALLS ARE SHOWN FOR LAYOUT PURPOSES ONLY.
2. UNIT LAYOUT IS FROM PLANS BY MILBRANDT ARCHITECTS, SHEETS U-1 THROUGH U-18, WITH REVISION DATE OF 4-26-96.
- SEE SHEET 8 FOR UNIT DIMENSIONS AND CEILING HEIGHTS. DROPPED CEILING HEIGHTS ARE SHOWN ON UNIT LAYOUT SHEETS 4 THROUGH 7.

JOB NO. 5335



Barghausen Consulting Engineers, Inc.
 Civil Engineering, Land Planning, Surveying, Environmental Services
 18215 72nd Avenue South Kent, WA 98032
 Telephone: (425) 251-6222 Fax: (425) 251-6782

NE 1/4 & SE 1/4 OF SW 1/4, SEC. 20-24N-6E

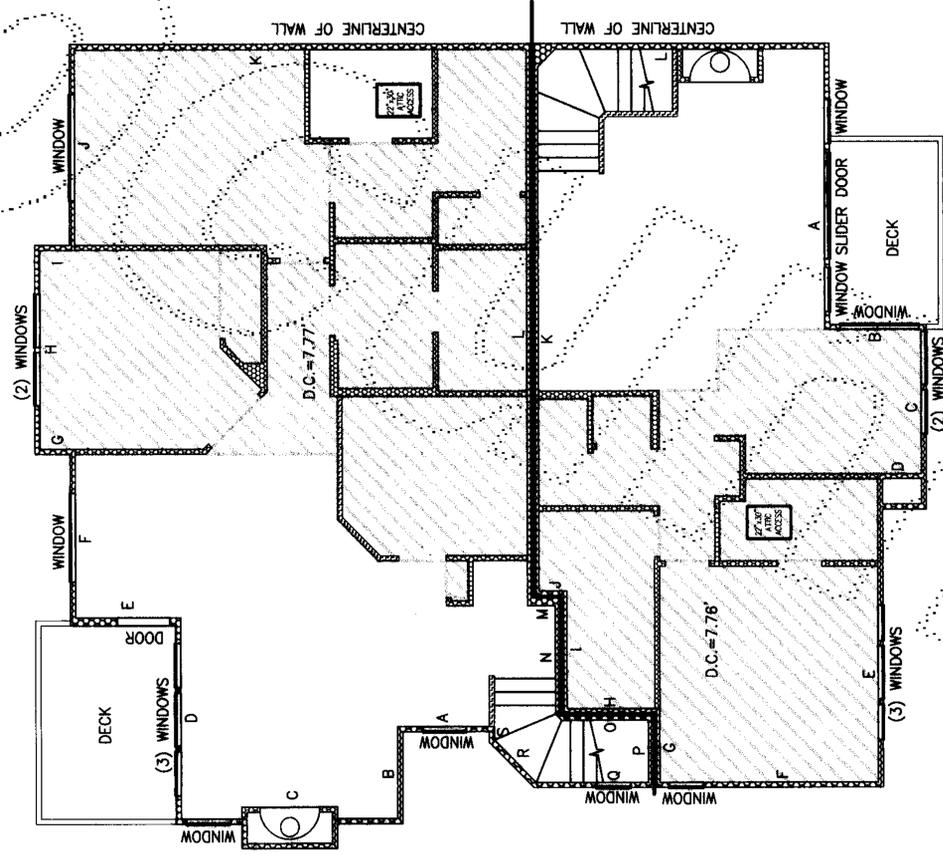
SHEET 4 OF 8

SAMMAMISH POINTE PHASE 4, A CONDOMINIUM

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 20, TOWNSHIP 24 NORTH, RANGE 6 EAST, WILLAMETTE MERIDIAN CITY OF ISSAQUAH, KING COUNTY, WASHINGTON

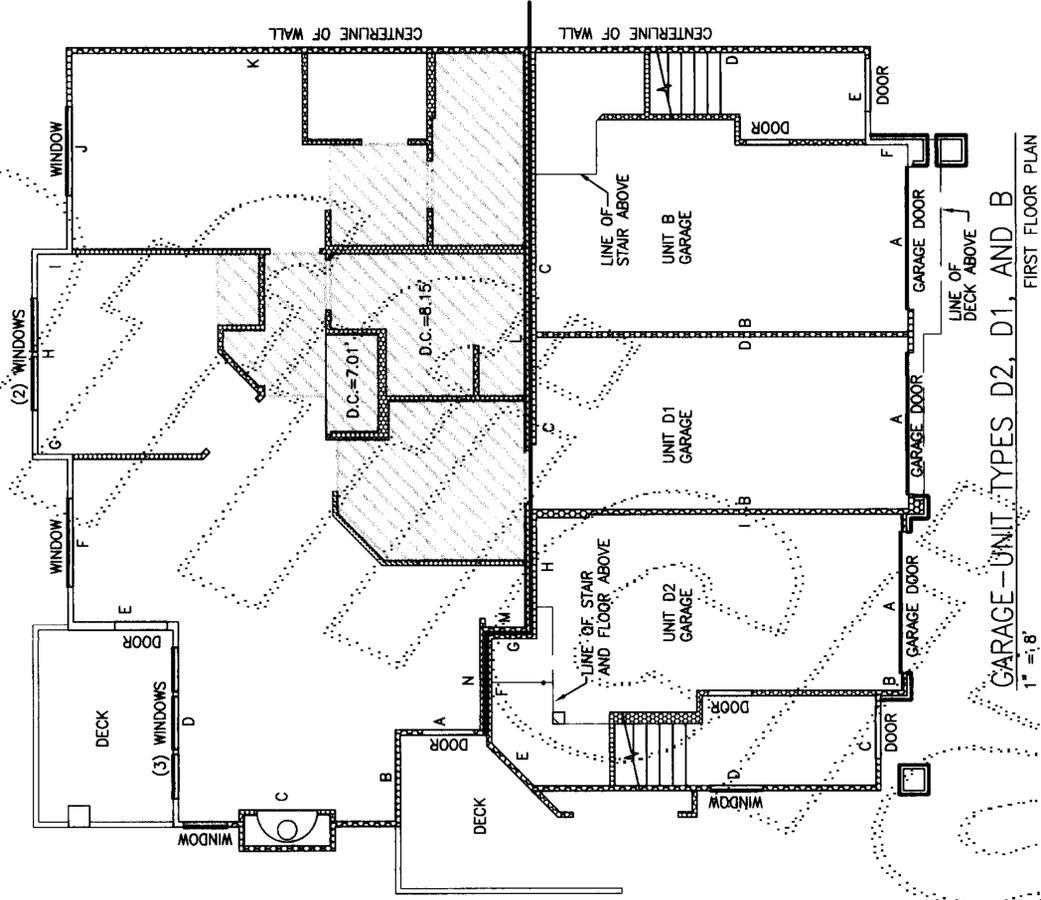
UNIT TYPE D2
1" = 8'

BUILDING 1, UNIT 5, MIRROR IMAGE
BUILDING 2, UNIT 2



UNIT TYPE B
1" = 8'

BUILDING 1, UNIT 4, MIRROR IMAGE
BUILDING 2, UNIT 3



GARAGE - UNIT TYPES D2, D1, AND B
1" = 8'

UNIT TYPE B
BUILDING 1, UNIT 4, MIRROR IMAGE
BUILDING 2, UNIT 3

UNIT TYPE D1
BUILDING 1, UNIT 6, MIRROR IMAGE
BUILDING 2, UNIT 1

UNIT TYPE D2
BUILDING 1, UNIT 5, MIRROR IMAGE
BUILDING 2, UNIT 2

NOTES:

1. UNLESS OTHERWISE NOTED OR SHOWN HEREON, DIMENSIONS ARE ON THE INNER FACE OF THE OUTER WALLS OF THE UNIT. INNER WALLS ARE SHOWN FOR LAYOUT PURPOSES ONLY.
2. UNIT LAYOUT IS FROM PLANS BY MILBRANDT ARCHITECTS, SHEETS U-1 THROUGH U-18, WITH REVISION DATE OF 4-26-96.
3. SEE SHEET 8 FOR UNIT DIMENSIONS AND CEILING HEIGHTS. DROP CEILING HEIGHTS ARE SHOWN ON UNIT LAYOUT SHEETS 4 THROUGH 7.

JOB NO. 5335



Barghausen Consulting Engineers, Inc.
Civil Engineering, Land Planning, Surveying, Environmental Services
18215 72nd Avenue South, Kent, WA, 98032
Telephone: (425) 251-6222 Fax: (425) 251-8782

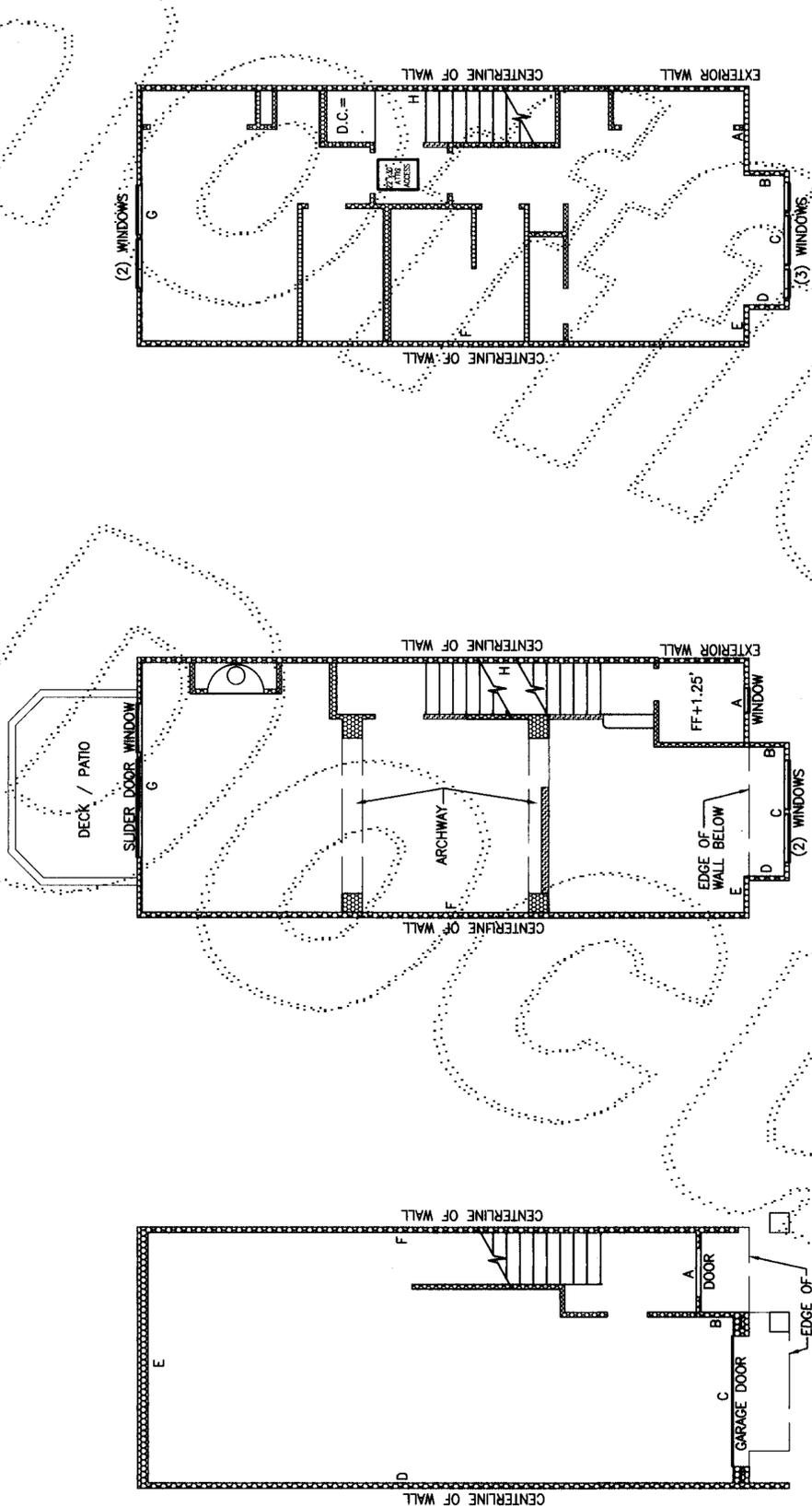
NE 1/4 & SE 1/4 OF SW 1/4, SEC. 20-24N-6E

SHEET 5 OF 8

VOLUME/PAGE

SAMMAMISH POINTE PHASE 4, A CONDOMINIUM

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 20,
TOWNSHIP 24 NORTH, RANGE 6 EAST, WILLAMETTE MERIDIAN
CITY OF ISSAQUAH, KING COUNTY, WASHINGTON



UNIT TYPE E BASEMENT/GARAGE FLOOR PLAN 1" = 8' UNIT TYPE E FIRST FLOOR PLAN 1" = 8' UNIT TYPE E SECOND FLOOR PLAN 1" = 8'

BUILDING 22, UNIT 2, MIRROR IMAGE
 BUILDING 22, UNIT 3, MIRROR IMAGE
 BUILDING 23, UNIT 2, MIRROR IMAGE
 BUILDING 23, UNIT 3, MIRROR IMAGE
 BUILDING 24, UNIT 2, MIRROR IMAGE
 BUILDING 24, UNIT 3, MIRROR IMAGE

- NOTES:
1. UNLESS OTHERWISE NOTED OR SHOWN HEREON, DIMENSIONS ARE ON THE INNER FACE OF THE OUTER WALLS OF THE UNIT. INNER WALLS ARE SHOWN FOR LAYOUT PURPOSES ONLY.
 2. UNIT LAYOUT IS FROM PLANS BY MILBRANDT ARCHITECTS, SHEETS U-1 THROUGH U-18, WITH REVISION DATE OF 4-26-96.
- SEE SHEET 8 FOR UNIT DIMENSIONS AND CEILING HEIGHTS. DROP CEILING HEIGHTS ARE SHOWN ON UNIT LAYOUT SHEETS 4 THROUGH 7.



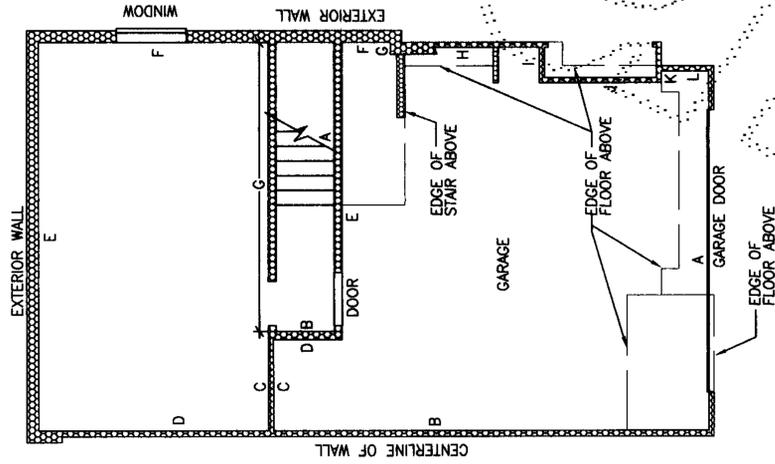
Barghausen Consulting Engineers, Inc.
 Civil Engineering, Land Planning, Surveying, Environmental Services
 18215 72nd Avenue South Kent, WA 98032
 Telephone: (425) 251-6222 Fax: (425) 251-8782

NE 1/4 & SE 1/4 OF SW 1/4, SEC. 20-24N-6E
 SHEET 6 OF 8

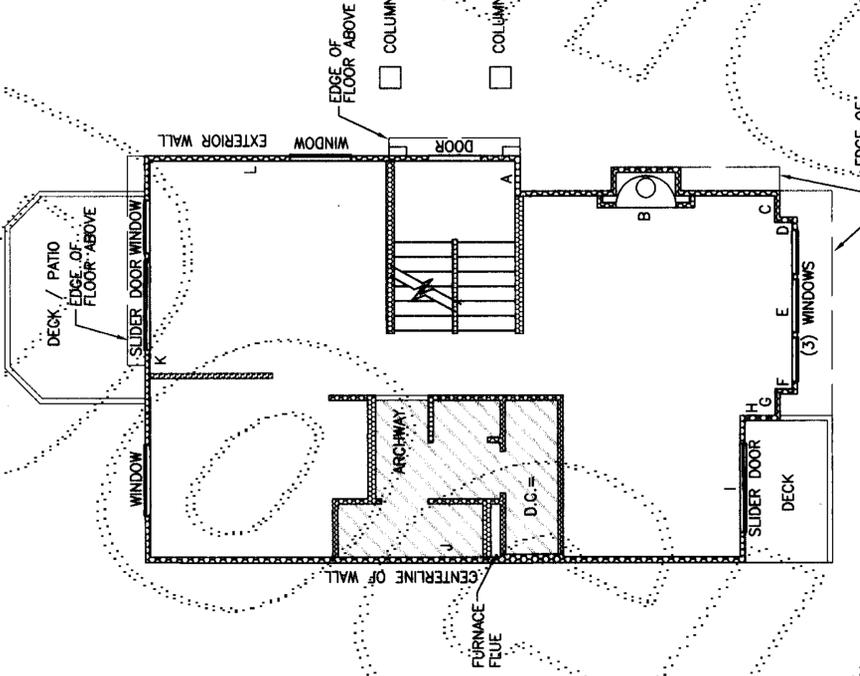
JOB NO. 5335

SAMMAMISH POINTE PHASE 4, A CONDOMINIUM

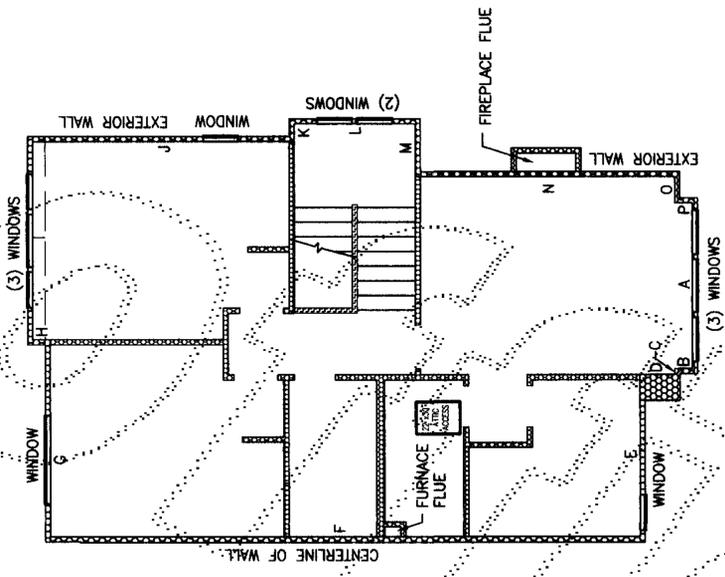
A PORTION OF THE SOUTHWEST QUARTER OF SECTION 20, TOWNSHIP 24 NORTH, RANGE 6 EAST, WILLAMETTE MERIDIAN CITY OF ISSAQUAH, KING COUNTY, WASHINGTON



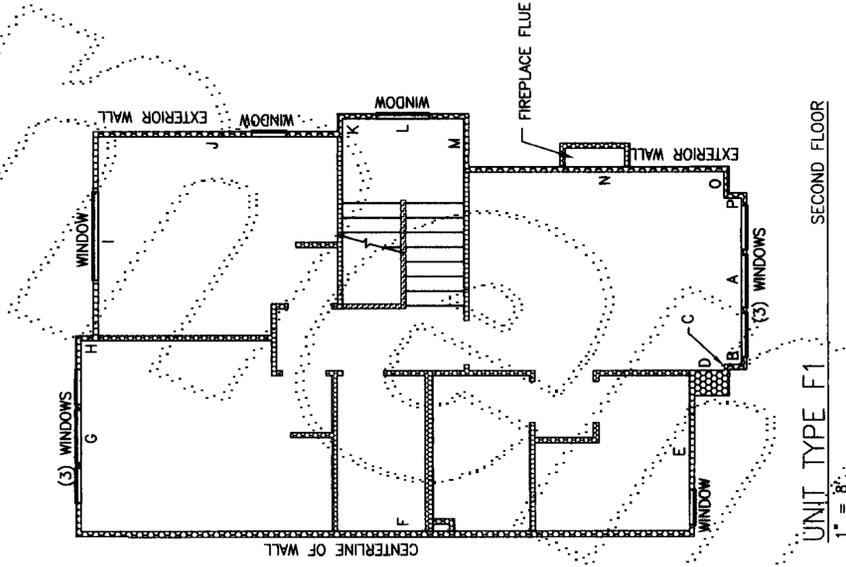
UNIT TYPE F AND F1. BASEMENT FLOOR
1" = 8'



UNIT TYPE F AND F1. FIRST FLOOR
1" = 8'



UNIT TYPE F. SECOND FLOOR
1" = 8'



UNIT TYPE F1. SECOND FLOOR
1" = 8'

BUILDING 22, UNIT 1, MIRROR IMAGE
BUILDING 23, UNIT 1, MIRROR IMAGE
BUILDING 24, UNIT 1, MIRROR IMAGE

NOTES:

- UNLESS OTHERWISE NOTED OR SHOWN HEREON, DIMENSIONS ARE ON THE INNER FACE OF THE OUTER WALLS OF THE UNIT. INNER WALLS ARE SHOWN FOR LAYOUT PURPOSES ONLY.
 - UNIT LAYOUT IS FROM PLANS BY MILBRANDT ARCHITECTS, SHEETS U-1 THROUGH U-18, WITH REVISION DATE OF 4-26-96.
- SEE SHEET 8 FOR UNIT DIMENSIONS AND CEILING HEIGHTS. DROP CEILING HEIGHTS ARE SHOWN ON UNIT LAYOUT SHEETS 4 THROUGH 7.

JOB NO. 5335



Barghausen Consulting Engineers, Inc.
 Civil Engineering, Land Planning, Surveying, Environmental Services
 18215 72nd Avenue South Kent, WA 98032
 Telephone: (425) 251-6222 Fax: (425) 251-8782

NE 1/4 & SE 1/4 OF SW 1/4, SEC. 20-24N-6E

SHEET 7 OF 8

BUILDING 22, UNIT 4
BUILDING 23, UNIT 4
BUILDING 24, UNIT 4

Use of Nonnatal Tributaries for Lake-Rearing Juvenile Chinook Salmon in the Lake Washington Basin, Washington

Author(s) :Roger A. Tabor, Julie A. Scheurer, Howard A. Gearns and Charles M. McCoy III

Source: Northwest Science, 85(3):476-490. 2011.

Published By: Northwest Scientific Association

DOI: 10.3955/046.085.0306

URL: <http://www.bioone.org/doi/full/10.3955/046.085.0306>

BioOne (www.bioone.org) is a nonprofit, online aggregation of core research in the biological, ecological, and environmental sciences. BioOne provides a sustainable online platform for over 170 journals and books published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Web site, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/page/terms_of_use.

Usage of BioOne content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

Use of Nonnatal Tributaries for Lake-rearing Juvenile Chinook Salmon in the Lake Washington Basin, Washington

Abstract

Ocean-type juvenile Chinook salmon (*Oncorhynchus tshawytscha*) can be present in the nearshore areas of Lake Washington and Lake Sammamish, WA for 4-5 months (January-June) and may encounter nonnatal tributaries. The use of these tributaries is not well known. We determined the presence of juvenile Chinook salmon in 12 tributaries through nighttime snorkel surveys from March to June. At one heavily-used tributary, we determined their temporal and spatial distribution by conducting surveys every two to three weeks from February to June. Additionally, we determined whether delta areas of tributaries are used by juvenile Chinook salmon by comparing their density and diet to other lakeshore sites. Of 12 streams surveyed, juvenile Chinook salmon were observed in eight. The abundance of Chinook salmon appeared to be related to a variety of factors including proximity to the natal stream, stream gradient, and stream size. In an intensively-monitored stream, juvenile Chinook salmon were found primarily in shallow areas in February and March and then shifted to deeper pools as juveniles increased in size. Within the lake nearshore area, juvenile Chinook salmon commonly used delta areas of nonnatal tributaries and their abundance was frequently greater than other nearby shoreline sites. Diet analysis indicated nonnatal streams are also a source of prey for lake-dwelling juvenile Chinook salmon, especially during rain events. Nonnatal tributaries in lake systems appeared to be valuable habitat features for juvenile Chinook salmon and can function in a variety of ways, including providing both stream and delta habitat.

Introduction

Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*) are currently listed as threatened under the Endangered Species Act (ESA; Federal Register 64 FR 14208, March 24, 1999). Determining their habitat requirements and the important characteristics of these habitats that affect growth and survival are important components of recovery efforts. Puget Sound Chinook salmon are primarily "ocean-type" which typically emigrate to the marine environment as subyearlings and during their juvenile freshwater phase of three to five months can inhabit a wide range of habitat types including large rivers, small streams, lakes, and estuaries (Healey 1991). Ocean-type Chinook salmon commonly have two groups of emigrants; a group that moves downstream as fry and rears in estuaries, coastal ocean habitats, or lakes and another group that rears in the natal river system and emigrates as parr or smolts (Healey 1991). In some cases, they may move into a nonnatal system

(Murray and Rosenau 1989). Identification of these nonnatal systems can provide a more complete picture of Chinook salmon habitat use and aid land-use planners with possible preservation or restoration of these habitats.

The lower Lake Washington watershed is in central Puget Sound and has three major Chinook salmon spawning tributaries: Cedar River, Bear Creek, and Issaquah Creek as well as two lakes, Lake Washington (9,495 ha; 33 m mean depth) and Lake Sammamish (1,980 ha; 17.7 m mean depth), that are used as rearing areas by juvenile Chinook salmon. They commonly inhabit shallow, nearshore areas of these lakes from January to June (Koehler et al. 2006; Tabor et al. *in press*). Besides naturally-produced fish, juvenile Chinook salmon in this watershed also come from the Issaquah Creek Hatchery, which are typically released in late May.

There are several small tributaries to these lakes that do not provide spawning habitat but their importance as juvenile Chinook salmon rearing areas is unknown. Juveniles may move upstream into the nonnatal tributary or use the tributary delta area while they inhabit the lake nearshore area. Also, nonnatal tributaries may provide additional prey resources for lake-dwelling juvenile Chinook salmon. Both lakes are in highly urbanized areas and the lower sections of some

¹ Author to whom correspondence should be addressed.

Email: roger_tabor@fws.gov

² Present address: NOAA-National Marine Fisheries Service, Northwest Fisheries Science Center, Newport Laboratory, 2032 SW OSU Drive, Newport, OR 97365.

³ Present address: South Puget Sound Community College, 2011 Mottman Road SW, Olympia, WA 98512

small tributaries are in culverts and enter the lake several meters below the lake surface. Daylighting these streams has been considered for benefit to rearing Chinook salmon but little information is available on Chinook salmon use of nonnatal streams to guide decisions on project benefits, feasibility, and design.

Our purpose was to document the use of nonnatal streams for juvenile Chinook salmon in Lake Washington and Lake Sammamish. We had four specific objectives: 1) to determine if juvenile Chinook salmon use nonnatal streams of Lake Washington and Lake Sammamish and determine important characteristics of those streams that influence their use; 2) to examine the temporal abundance and habitat use patterns of juvenile Chinook salmon in a nonnatal stream; 3) to determine whether delta areas of tributaries are also important habitat features and determine if juvenile Chinook salmon use of deltas increases with rain events; and 4) to determine if juvenile Chinook salmon that are present on deltas areas consume prey from nonnatal tributaries and if their diet changes with rain events.

Methods

Nonnatal Stream Use

To determine the use of nonnatal tributaries, we conducted snorkel surveys of 12 tributaries located

in three major areas: south Lake Washington, north Lake Washington, and south Lake Sammamish (Table 1, Figure 1). Adult Chinook salmon have not been documented in any of these tributaries, except Thornton Creek. However, adult Chinook salmon were not observed in Thornton Creek (stream #7) in 2001, the spawning season before our surveys. We included two stream segments in Thornton Creek: 1) a 130 m reach in the lower mainstem and 2) Matthews Creek, a small tributary that flows into Thornton Creek, 30 m from its mouth on Lake Washington. Surveys were conducted during three different time periods: late-March-April, May, and June 2002. In May and June, each tributary was surveyed once. During the late March-April period, most tributaries were surveyed only once but a few tributaries were surveyed twice. To be consistent with the other surveys, these surveys were combined. The June survey was conducted after hatchery Chinook salmon had been released from the Issaquah Creek Hatchery and thus, observed Chinook salmon were a mixture of hatchery and naturally-produced fish. No attempt was made to distinguish between hatchery and naturally-produced fish. Within each tributary, we surveyed two general habitat types: 1) convergence pool and 2) other slow-water habitats (pools and glides). Convergence pools were the downstream end of the tributary that consisted of backed up water from the lake. The size of the convergence pool

TABLE 1. Nonnatal tributaries surveyed for juvenile Chinook salmon in Lake Washington and Lake Sammamish, WA, and the tributaries' physical characteristics. X denotes whether the stream and/or delta were surveyed for juvenile Chinook salmon. Stream size (S = small, L = large) was based on whether baseline discharge levels were < or > 2 cfs. Streams names that end with "tributary" are unofficial names given by the authors. Stream locations are shown in Figure 1.

Lake area Stream name	Stream number	Areas surveyed		Stream size	Maximum depth (m)	Mean width (m)	Gradient (%)	Delta size (m ²)
		Stream	Delta					
South Lake Sammamish								
SW Sammamish tributary	1	X		S	0.52	1.13	5.1	6
Schneider Creek	2	X	X	S	0.80	1.83	0.3	235
Tibbetts Creek	3	X	X	L	1.70	5.25	0.3	1,100
Laughing Jacobs Creek	4	X	X	L	0.50	2.46	1.4	404
North Lake Washington								
Lyon Creek	5	X	X	L	0.80	3.46	0.5	1,350
Denny Creek	6	X		S	0.48	2.33	0.9	6
Thornton Creek	7	X	X	L	1.60	4.14	1.7	3,600
Matthews Creek	8	X		S	1.50	11.36	0.3	0
South Lake Washington								
May Creek	9		X	L	1.20	4.30	0.4	2,160
Kennydale Beach tributary	10		X	S	0.20	0.50	14.4	105
Kennydale Creek	11	X	X	S	0.44	1.27	5.9	93
Johns Creek	12	X		S	1.10	4.96	0.6	0
West Mercer tributary	13	X		S	0.48	2.65	4.0	6
Taylor Creek	14	X	X	S	0.90	1.62	1.8	722
Bryn Mawr tributary	15		X	S	0.30	0.80	4.0	60

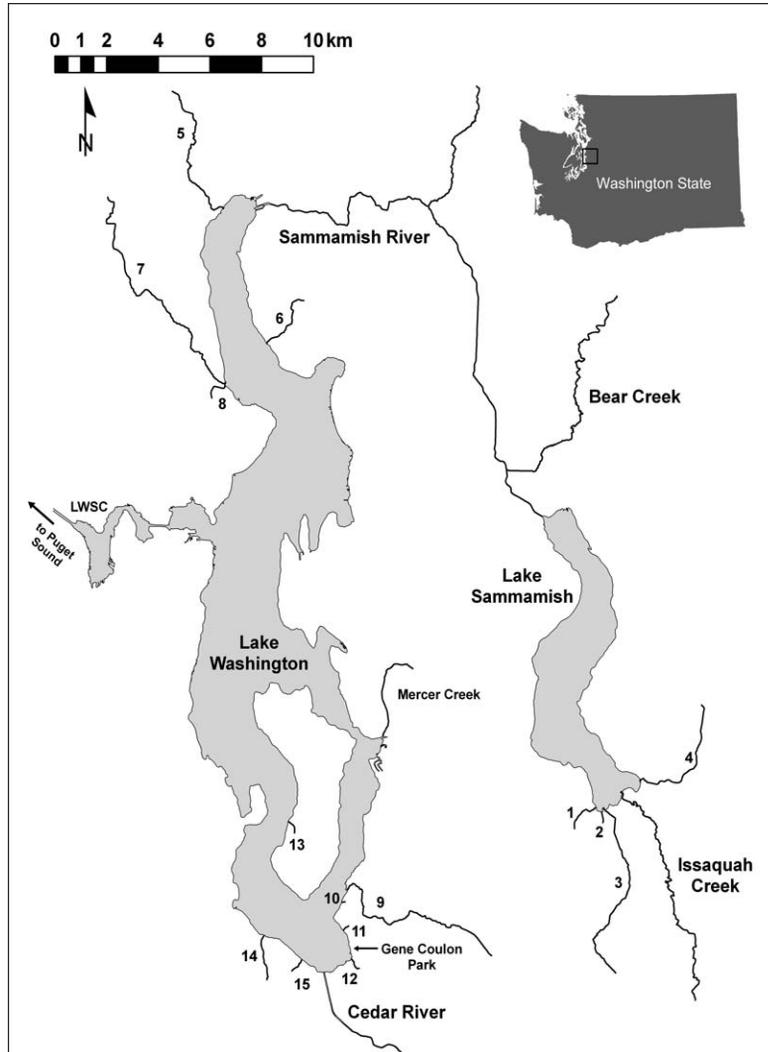


Figure 1. Map of nonnatal streams surveyed for juvenile Chinook salmon in Lake Washington and Lake Sammamish. Each study stream is designated with a stream number. Stream names and physical characteristics are given in Table 1. LWSC = Lake Washington Ship Canal.

changed depending on lake level. Immediately upstream of the convergence pool, we attempted to survey at least two or three pools or glides. At some tributaries, we did not survey any upstream pools or glides because either the stream was not accessible or there was an obvious impassable barrier to juvenile Chinook salmon. Surveys were only conducted at night and consisted of a snorkeler that slowly moved upstream to identify and count all fish. For each tributary, the same stream reach was snorkeled during the three time periods,

except one survey in Tibbetts Creek (stream #3) and one in Thornton Creek (stream #7) when we were only able to survey the upstream section due to turbid conditions in the convergence pool. At each tributary, stream measurements were taken to determine mean wetted width, maximum depth, and gradient (upstream of convergence pool). During baseline conditions in April, we also measured stream discharge and subsequently each stream was categorized as either a small (< 2 cfs) or large stream (≥ 2 cfs). Baseline conditions occurred

typically when there had been little precipitation for three to four days. Also, discharge levels of < 15 cfs at Mercer Creek (a tributary to central-east Lake Washington with U.S. Geological Survey stream-gaging station #12120000; Figure 1) were also used as an indication of baseline conditions in other tributaries of Lake Washington and Lake Sammamish.

Johns Creek—Temporal and Spatial Distribution

In 2003 and 2004, we repeatedly surveyed the lower 260 m of Johns Creek (stream #12) to determine the temporal abundance and habitat use patterns of juvenile Chinook salmon. Preliminary information in 2002 indicated that Johns Creek had a higher abundance of juvenile Chinook salmon than any other stream. Johns Creek is located in Gene Coulon Park in the southeast corner of Lake Washington, 1.5 km from the mouth of the Cedar River (Figure 1). Typical winter baseline streamflow is about 0.8 cfs. Mean wetted width is 5 m and the gradient is less than 1%. Juvenile Chinook salmon have been observed in the lower 460 m of the stream. Just upstream, Johns Creek is formed by two equal-sized streams that are mostly in culverts.

The study reach was divided into habitat units, which were either classified as a convergence pool, scour pool, glide, or riffle. The convergence pool was the lower 61 to 136 m of the reach with a water level that was directly influenced by lake level. As the lake rose from February to June, the convergence pool became progressively larger. Scour pools were other pools upstream of the convergence pool that had a maximum depth \geq 0.35 m. Glides or shallow pools were other slow water habitats that had a maximum depth < 0.35 m. Riffles were areas that had noticeable surface turbulence with increased water velocities. Length, width, maximum depth, and average depth were measured for each habitat unit.

Fish surveys of Johns Creek were conducted during the day primarily by a snorkeler who slowly moved upstream and counted fish. Preliminary surveys of Johns Creek in 2002 indicated day and night snorkel counts were similar and we just conducted day surveys for convenience. Some glides that were too shallow to snorkel were surveyed by surface observations by walking slowly along the stream bank. The use of surface observations

has been shown to be effective for studying juvenile salmonid habitat use in lotic systems where there is little surface turbulence (Heggenes et al. 1990). Because fish are often difficult to observe in riffles, we used electrofishing equipment to sample this habitat. Because surface observations and electrofishing together were conducted in less than 10% of the total area surveyed, we felt the potential differences in sampling efficiencies of these other techniques did not significantly bias our overall estimates. Also, surveys were conducted in a consistent manner from occasion to occasion. The number of juvenile Chinook salmon observed in each habitat unit was combined by habitat type to estimate the number of juvenile Chinook salmon per m². Where Chinook salmon were found, the bottom depth (total water column depth) was measured and categorized into 0.1-m intervals. Comparisons between sample dates within each year were made with a Kruskal-Wallis test (contingency table format) and a multiple comparisons procedure (Conover 1999). In 2003, surveys of Johns Creek were done once every two weeks from March to June while in 2004, surveys were conducted once every three weeks from February to the end of May. Additionally, once a month in 2003 (February-May) we determined sizes of juvenile Chinook salmon in Johns Creek by using a small beach seine to collect fish in pools and glides.

Delta Areas

In 2002, we also examined juvenile Chinook salmon use of deltas of nonnatal tributaries by comparing their abundance at deltas to other nearby lake shoreline sites and examining their change in abundance and diet after rain events. To compare deltas and shoreline sites, snorkel surveys were conducted at eight delta sites and a nearby shoreline site was surveyed at each site. Nonnatal streams with a delta area of less than 20 m² were not used. The lake shoreline site was selected based on proximity to the delta site and the appearance of good quality habitat for juvenile Chinook salmon (i.e., gentle slope with small substrates and little or no armoring). Surveys were only conducted at night and consisted of a snorkeler slowly moving parallel to shore along a depth contour while identifying and counting all fish. Two depth contours were surveyed, 0.4 and 0.7 m depth at both the delta site and the lake reference site. Transects widths were 2.5 m for

the 0.4-m depth contour and 2 m for the 0.7-m depth contour. Snorkelers visually estimated the transect width and calibrated this estimation at the beginning of each survey night by viewing a measured staff underwater. Similar to stream surveys, delta surveys were conducted in 2002 during three time periods (late-March-April, May, and June) and the June survey was conducted after hatchery Chinook salmon had been released from the Issaquah Creek Hatchery. We used a sign test to determine if the density of Chinook salmon (mean of the two depth contours) was higher on deltas than shoreline sites during each time period.

We collected juvenile Chinook salmon at three delta sites in south Lake Washington during baseline and high discharge conditions to determine if fish use of delta areas increased after rain events. Two tributaries (May Creek and Taylor Creek) were surveyed in 2004 and one (Bryn Mawr tributary) was examined in 2005. Adult Chinook salmon have not been documented in Taylor Creek or Bryn Mawr tributary; however, they have occasionally been observed in May Creek but no Chinook salmon were observed during the 2003 spawning season before our collections were taken. Peak daily discharge measurements at Mercer Creek (5.8 to 8.8 km away from our sites, Figure 1) by the U.S. Geological Survey (<http://waterdata.usgs.gov/nwis>) were used as an index of baseline and high discharge levels. Because snorkeling was ineffective during turbid conditions after rain events, fish were collected with a small beach seine. The net was 9.1 m long and 1.8 m deep with a 1.8-m deep by 1.8-m long bag in the middle. The mesh size in the wings

was 6-mm stretch mesh while the bag was 2-mm stretch mesh. The same time of the day and number of seine sets was used during baseline and high discharge conditions at each site. At Bryn Mawr tributary, two sets were conducted, while at the other tributaries three to four sets were conducted. Sampling was first conducted shortly after a rain event and then baseline sampling was conducted a few days later when discharge levels returned to baseline conditions. The total number of juvenile Chinook salmon collected was used to compare between discharge conditions.

Diet Analysis

Diet analysis was used to determine if fish diets are different at delta sites than along the lakeshore and if the diet changes during rain events. Gene Coulon Park was used as the lakeshore reference site because it was easily accessible and large numbers of juvenile Chinook salmon are known to rear at this location. Previous sampling indicated the diet of juvenile Chinook salmon were similar between lakeshore sites (Tabor et al. 2006). Up to 10 Chinook salmon were randomly selected from each site for diet analysis (Table 2). After fish were captured, they were anaesthetized with MS-222, the fork length was measured, and their stomach contents were removed through gastric lavage. Stomach contents were put in plastic bags, placed on ice, and frozen upon returning from the field (approximately 1-2 hours after sampling). In the laboratory, stomach samples were thawed, examined under a dissecting scope, and divided into major prey taxa. Aquatic insects and crustaceans were identified to family, while other prey items

TABLE 2. Number and size (mean fork length, *SD*, and range) of juvenile Chinook salmon used for diet analysis to compare between delta areas and a lakeshore reference site, south Lake Washington, WA. All lakeshore sampling was conducted at Gene Coulon Park.

Year	Sample type	Location	Date	<i>N</i>	Mean length (mm)	<i>SD</i>	Range
2004	Baseline conditions	Lakeshore	March 30	10	54.1	5.04	46 - 63
		May Creek	April 1	10	54.0	8.60	40 - 64
		Taylor Creek	March 30	5	54.8	5.31	47 - 61
	Rain event	Lakeshore	March 25	10	48.3	5.21	42 - 58
		May Creek	March 26	10	57.1	4.38	51 - 62
		Taylor Creek	March 25	2	49.5	10.61	42 - 57
2005	Baseline conditions	Lakeshore	March 31	6	52.8	2.04	50 - 56
		Bryn Mawr tributary	March 31	1	47.0	---	---
	Rain event	Lakeshore	March 26	8	57.0	5.21	50 - 63
		Bryn Mawr tributary	March 26	4	56.0	6.22	51 - 65

were identified to major taxonomic groups (class or order). Prey groups were counted and the wet weight was measured. Each group was weighed to the nearest 0.0001g after blotting the sample on tissue paper for approximately 10 seconds.

To quantify the diet composition of juvenile Chinook salmon, we calculated the percent by weight (%W) and percent by number (%N) for each prey group in each sample (Chipps and Garvey 2007). To help compare the diet between samples, we calculated Schoener's diet overlap index (Schoener 1971):

$$C_{xy} = 1 - 0.5 (\sum |p_{xi} - p_{yi}|)$$

where C_{xy} is the index value, p_{xi} is the proportion of food type i used by Chinook salmon at site x and p_{yi} is the proportion of food type i used by Chinook salmon at site y . Researchers commonly use an overlap index level of 0.6 or more to indicate a significant overlap in diet (Zaret and Rand 1971; Johnson 1981). Comparisons were made between tributary deltas and lakeshore reference sites, and between high and base streamflow conditions at each delta.

Results

Nonnatal Stream Use

For the 12 tributaries combined, 32 snorkel surveys were completed that encompassed the three

time periods. Juvenile Chinook salmon were documented in eight of the 12 tributaries surveyed (Figure 2). Of the six tributaries with a gradient less than 1%, juvenile Chinook salmon were present in five and of those, the density of Chinook salmon was higher in the upstream pools and glides than in the convergence pool in three tributaries. Of the six tributaries with a gradient more than 1%, juvenile Chinook salmon were present in three and of those, the density of Chinook salmon was always higher in the convergence pool than in the upstream pools and glides. The density (fish/m) of juvenile Chinook salmon decreased from March-April to June in all small tributaries (< 2 cfs). In Lyon Creek (stream #5), the only large tributary completely surveyed each time period, the density of juvenile Chinook salmon increased substantially from March to June. The increase in density in June may have been partly because large numbers of hatchery Chinook salmon had been released shortly before our surveys.

Johns Creek—Temporal and Spatial Distribution

In both 2003 and 2004, large numbers of juvenile Chinook salmon were present in the lower reach of Johns Creek in February and March (Figure 3). Peak abundance was 632 Chinook salmon on 5 March 2003. Numbers gradually decreased from March through May and few Chinook salmon

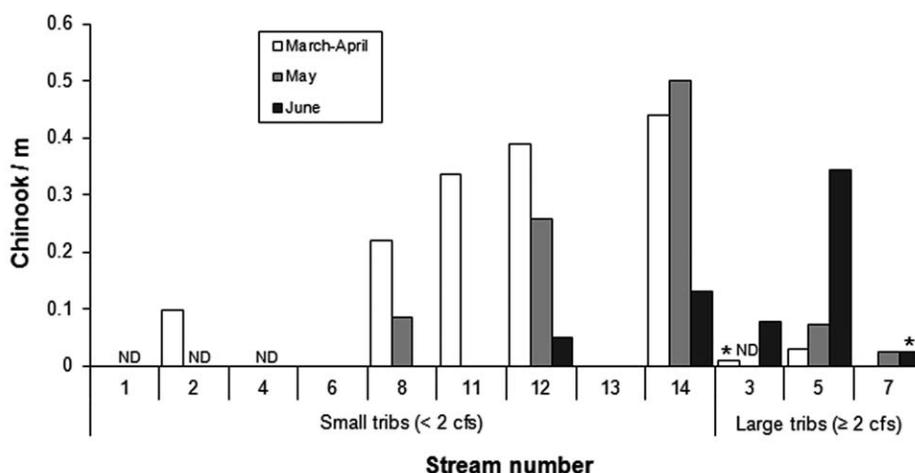


Figure 2. Abundance of juvenile Chinook salmon (fish/m) in several tributaries of Lake Washington and Lake Sammamish, March-June, 2002. Density estimates are the results of snorkel surveys in the lower convergence pool and upstream pools and glides. Stream numbers correspond to those in Table 1 and Figure 1. ND = no data (May samples only); * = only includes upstream pools and glides because the convergence pool was too turbid to survey.

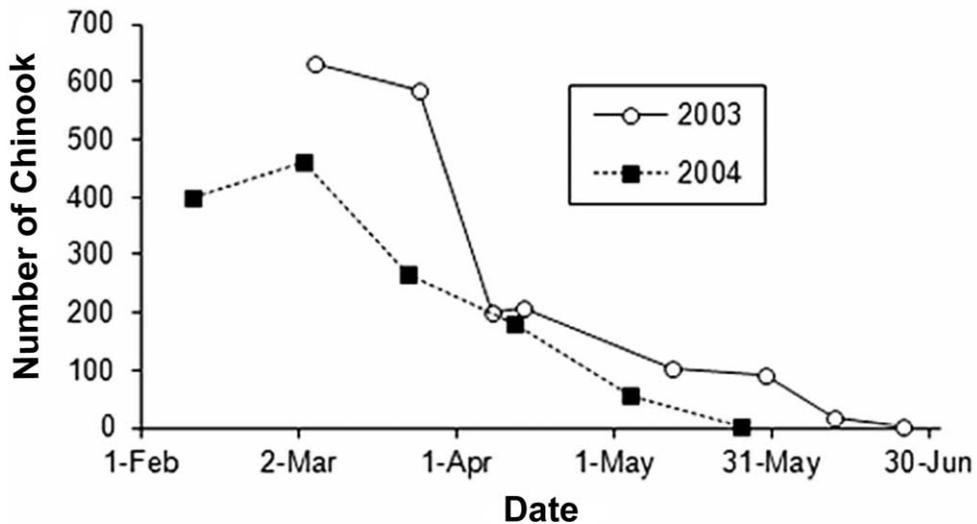


Figure 3. Number of juvenile Chinook salmon observed in the lower 260 m of Johns Creek in 2003 and 2004. Data are based primarily on snorkel counts. Habitats that were too shallow to snorkel were surveyed with surface observations or electrofishing surveys.

were present by the beginning of June. In 2003, the mean length of juvenile Chinook salmon in Johns Creek ranged from 40.5 mm FL ($n = 10$; $SD = 2.17$) on February 21 to 73.6 mm FL ($n = 18$; $SD = 3.73$) on May 30. Bottom depths of juvenile Chinook salmon locations were significantly different between most survey dates (Figure 4; Kruskal-Wallis test and multiple comparisons procedure; $P < 0.05$) and were generally deeper as juvenile Chinook salmon increased in size. In February, the most frequently used depth category was 0.2 - 0.29 m, while in May it was 0.5 - 0.59 m in 2003 and 0.4 - 0.49 m in 2004.

Juvenile Chinook salmon density was highest in glides in February and early March (Figure 5). In both 2003 and 2004, the density in the beginning of March was about twice as high in glides than scour pools. The density in glides declined dramatically in late March and after the beginning of April, few Chinook salmon were present in glides and those that were present were almost always under overhanging vegetation. In April and May, the density in scour pools was 3 to 65 times higher than in glides. Juvenile Chinook salmon were present in scour pools throughout the study period. In February, they were located in shallow areas of the pool such as the edges and tailouts. After February, they were found in deeper water and by the end of March they were usually in the deepest part of the pool. Few Chinook salmon

were ever collected in riffles. They were only collected in riffles in February and early March and within the riffle, they were located in small eddies behind small boulders.

Similar to scour pools, Chinook salmon were present in the convergence pool throughout the study period, albeit at a much lower density than in glides and scour pools. Chinook salmon in the convergence pool were usually close to the edge associated with shoreline vegetation and did not appear to use the large area in the middle of the stream channel. The deep areas (≥ 0.9 m) of the convergence pool did not appear to be used extensively by Chinook salmon. Instead these areas were often inhabited by large trout (*Oncorhynchus* spp.) or largemouth bass (*Micropterus salmoides*).

Delta Areas

During March and April sampling, five of six sites had a higher density of juvenile Chinook salmon on the delta than on the nearby reference site (Figure 6). At Lyon Creek (stream #5), no juvenile Chinook were observed and the delta of Tibbetts Creek (stream #3) was too turbid to survey. For all sites during March and April, there was not any significant difference between the two habitat types (sign test, $P = 0.125$). In May, we only surveyed five sites of which four had a higher density of juvenile Chinook salmon on the delta than at their reference site (sign test, $P = 0.375$).

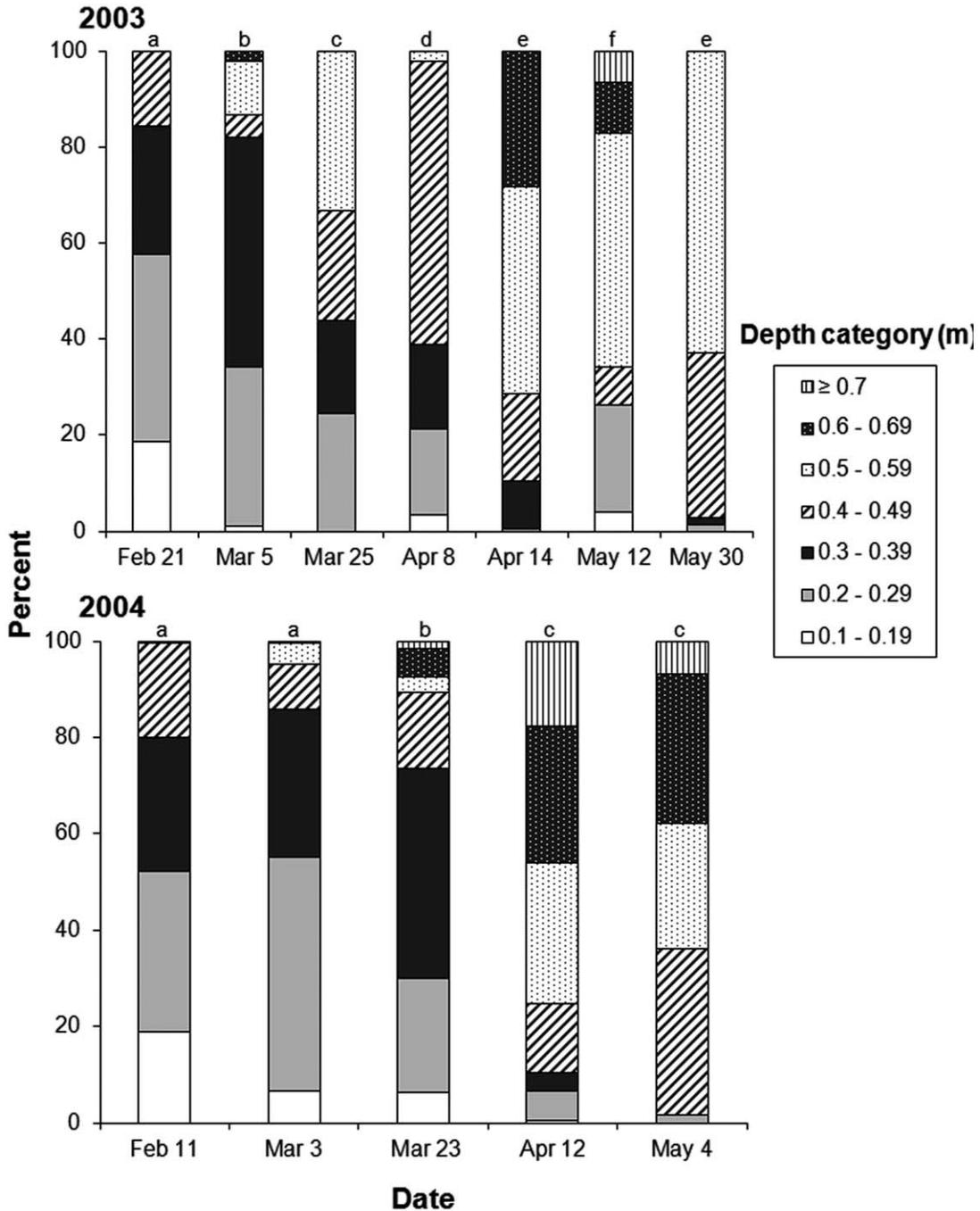


Figure 4. Percent of juvenile Chinook salmon found in seven bottom depth categories (m) in Johns Creek, 2003 and 2004. Groups of bars (within each year) with different letters are significantly different (Kruskal-Wallis test and multiple comparisons test). Figure only includes dates when at least 10 Chinook salmon were observed.

During the June sampling period, all eight sites had a higher density of juvenile Chinook salmon

on the delta than at their reference site (sign test, $P = 0.008$).

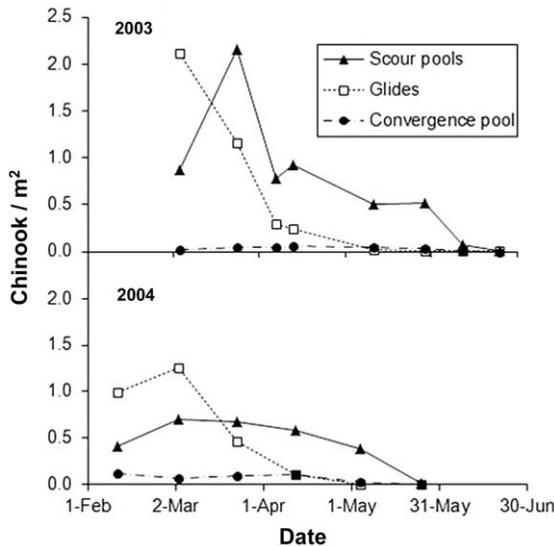


Figure 5. Density (fish/m²) of juvenile Chinook salmon in three habitat types in the lower 260 m of Johns Creek, 2003 and 2004. Density in riffles is not shown because few fish were observed in this habitat type.

A substantially higher number of juvenile Chinook salmon were caught after a rain event than during baseline discharge conditions in May Creek and Bryn Mawr tributary (Figure 7). There was no noticeable difference in catch at Taylor Creek. Beach seining may not have been as effective at Taylor Creek because it was sampled under brighter light conditions than the other two streams. Peak daily discharge levels at Mercer Creek were 11 to 15 cfs on sampling days of baseline conditions. In contrast, peak discharge levels were 37 to 99 cfs on our rain-event sampling days.

Diet Analysis

A total of 66 juvenile Chinook salmon were sampled for diet analysis, which ranged in size from 40 to 65 mm FL. There was no apparent change in diet with fish size; therefore, we combined all fish into one size class. For example, in 2004 the diet of fish < 55 mm FL ($n = 24$) significantly overlapped that of fish ≥ 55 mm FL ($n = 23$; $C = 0.87$). During baseline conditions, chironomid pupae and adults comprised more than 60% of the diet by weight and by number at both stream delta and the lakeshore reference site (Figure 8). The proportion of the diet (by weight and by number) comprised of oligochaetes, larval chironomids, and ephemeroptera increased during rain event

conditions in the three streams sampled. At the Bryn Mawr tributary delta, oligochaetes made up 78% of the overall diet after a rain event. There was little overlap between fish from the delta sites feeding during a rain event and either 1) fish feeding along the lakeshore or 2) fish feeding on the delta during baseline (non-rain events) conditions (Table 3). Diets were similar 1) between delta and lakeshore sites during baseline conditions and 2) between rain and baseline conditions at lakeshore sites.

Discussion

Our results indicate that nonnatal streams that flow directly into Lake Washington and Lake Sammamish provide valuable habitat for juvenile Chinook salmon. First, these small streams provide stream rearing habitat for juvenile Chinook salmon. These fish are present for as long as four months and in some situations large numbers may be present. Secondly, nonnatal streams often have deltas within the lake environment that are shallow and sandy and are valuable rearing habitat for juvenile Chinook salmon. Lastly, nonnatal streams are a source of prey for lake-dwelling juvenile Chinook salmon, especially during rain events.

The movement of juvenile Chinook salmon into nonnatal tributaries was highly variable between streams. The abundance of Chinook salmon appeared to be related to a variety of factors including proximity to the natal stream, stream gradient, and stream size. Because juvenile Chinook salmon in January to mid-May are concentrated close to the mouth of the Cedar River in the south end of Lake Washington (Tabor et al. 2006) and the mouth of the Sammamish River in the north end (K. Fresh, National Marine Fisheries Service, personal communication), their abundance would be expected to be higher in streams closer to the natal system. The distribution of juvenile Chinook salmon in Lake Sammamish is not known; however, it seems likely that juvenile Chinook salmon are more concentrated near the mouth of Issaquah Creek (the only natal stream) in the south end and thus more likely to move into tributaries in the south part of the lake. After mid-May, juvenile Chinook salmon are generally widespread throughout both lakes and would be expected to be found in the lower reaches of all the larger tributaries. For example, hatchery Chinook salmon (likely from Issaquah Creek hatchery) are commonly

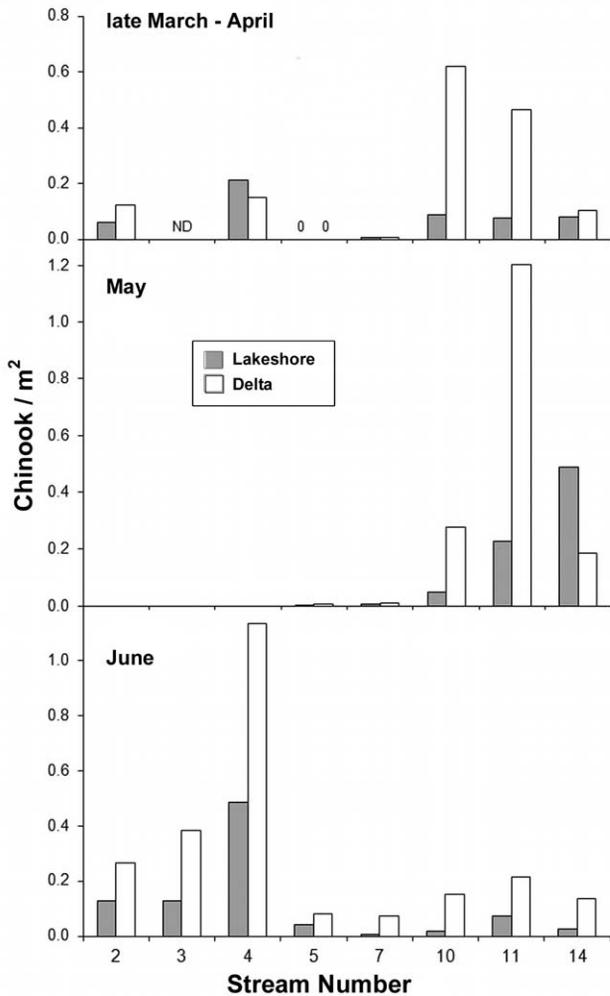
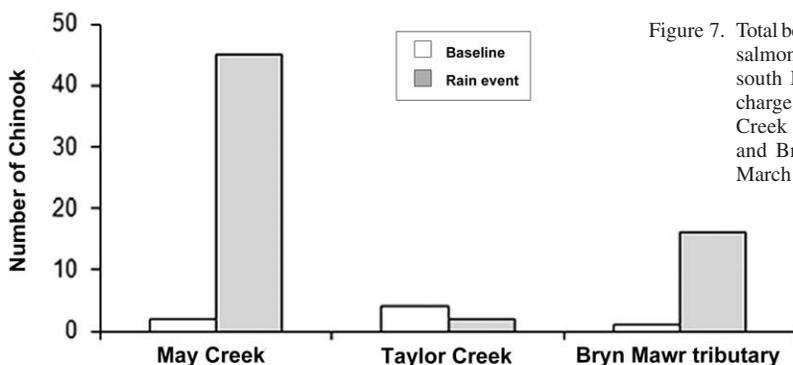


Figure 6. Density of juvenile Chinook salmon (fish/m²) at delta sites (open bars) compared to a nearby lake reference site (shaded bars), March-June, 2002. Density estimates are the mean of two snorkel transects, 0.4- and 0.7-m depth contours. Each bar represents the results of one nighttime snorkel survey. Stream numbers correspond to those in Table 1 and Figure 1.



caught in the Cedar River smolt enumeration trap at river kilometer 1.1 (Kiyohara and Volkhardt 2008).

In some streams, juvenile Chinook salmon only used the convergence pool because upstream sections had a much higher gradient. Juvenile Chinook salmon probably have a limited ability to move upstream of barriers, such as a small cascade or long riffle. Some streams have small weirs that may be a barrier to juvenile Chinook salmon moving upstream. In the lower part of the Fraser River, British Columbia, juvenile Chinook salmon used nonnatal tributaries that had low gradients and had no fish barriers such as waterfalls, culverts, bridge footings, or flood control gates (Murray and Rosenau 1989).

The number of juvenile Chinook salmon in the large tributaries in March and April was lower than expected. These streams had a large convergence pool yet few small juvenile Chinook salmon were present. Additionally, we observed this same trend in three other large tributaries of Lake Washington in 2002 that had a few adult Chinook salmon present the previous spawning season. The low abundance of juvenile Chinook salmon in all these tributaries may have been because the water was usually deep and banks were often armored with riprap. Previous sampling in Lake Washington demonstrated that shallow water habitat is an important element of Chinook salmon habitat use; especially from February to May when Chinook salmon are relatively small (Tabor et al. *in press*). In many tributaries, the banks were steep due to rip rap and thus the amount of

Figure 7. Total beach seine catch of juvenile Chinook salmon on the deltas of three tributaries of south Lake Washington during two discharge conditions. May Creek and Taylor Creek were sampled March-April 2004 and Bryn Mawr tributary was sampled March 2005.

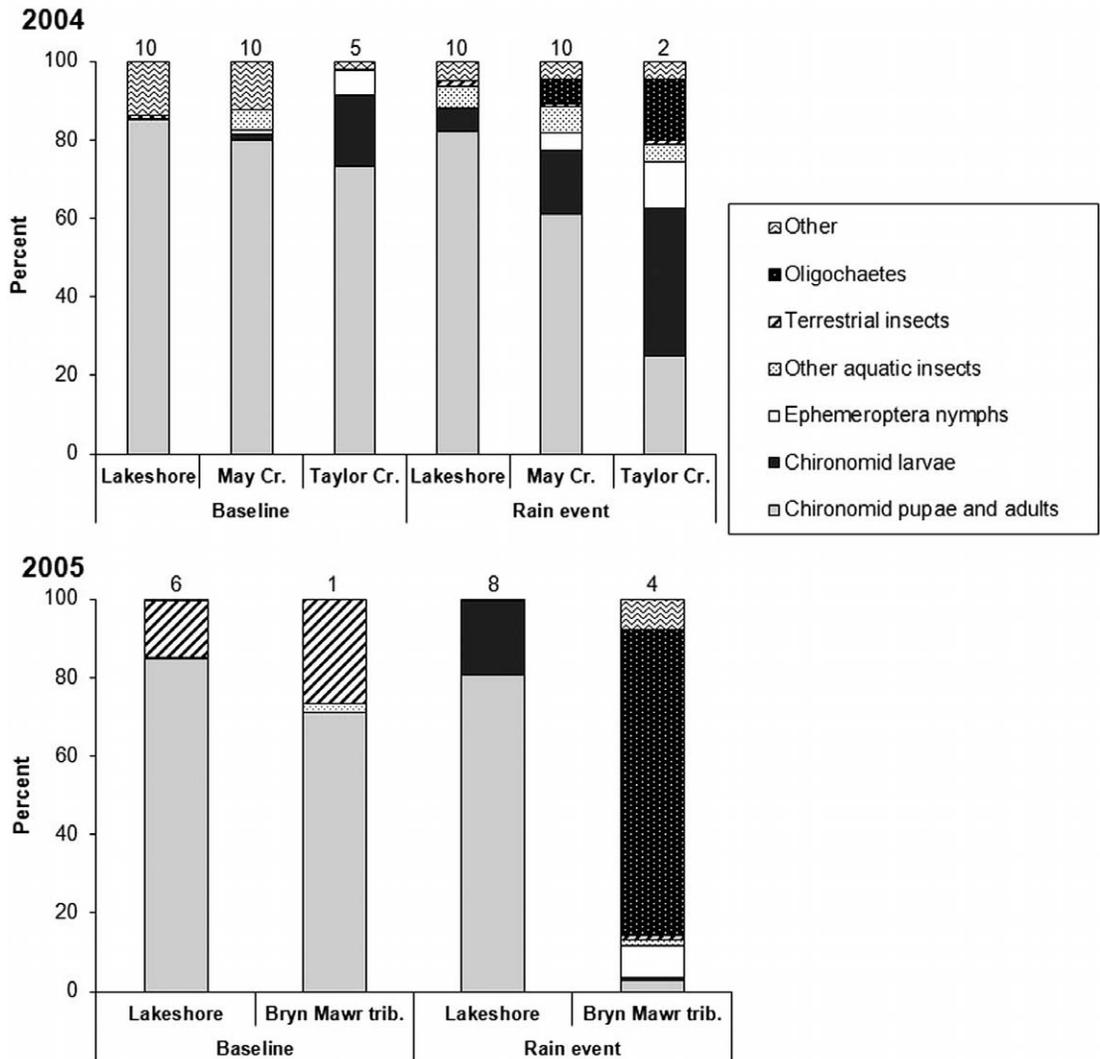


Figure 8. Diet composition (percent by weight) of juvenile Chinook salmon in south Lake Washington. Samples were collected at a lakeshore site (Gene Coulon Park) and at the deltas of three tributaries during different weather conditions. Number of fish sampled is given above each bar. The other category includes primarily plant material, crustaceans, and larval fish.

shallow water habitat was minimal. Deep water is probably avoided because of increased predation risk. Large trout and sculpin (*Cottus* spp.) were commonly observed in deep pools. Riprap may also provide suitable habitat for predators of Chinook salmon such as trout and large sculpin (Knudsen and Dilley 1987; Lister et al. 1995; Knaepkens et al. 2002).

Our primary sampling technique was snorkeling which allowed us to observe juvenile Chinook salmon in a variety of habitat types and also elimi-

nated handling of an ESA-listed species. Based on preliminary surveys, day and night snorkel survey counts of juvenile Chinook salmon in tributaries were similar and we conducted night snorkel surveys because we surveyed tributaries the same night as delta and lakeshore sites. Surveys of delta and lakeshore sites were conducted at night because juvenile Chinook salmon were difficult to observe in this habitat type during the day. Delta and lakeshore sites were mostly open areas and during the day the distance at which

TABLE 3. Diet overlap index values (C) of juvenile Chinook salmon between stream deltas and lakeshore sites during different weather conditions, south Lake Washington. May Creek and Taylor Creek were sampled March-April 2004 and Bryn Mawr tributary was sampled March 2005. Diet overlap index numbers in bold indicate comparisons that do not have a significant overlap ($C < 0.6$).

		Delta		Lakeshore		
		baseline	rain	baseline	rain	
1) May Creek	Delta	baseline	-----	0.67	0.82	0.83
		rain	-----	-----	0.62	0.69
	Lakeshore	baseline	-----	-----	0.87	-----
		rain	-----	-----	-----	-----
2) Taylor Creek						
		baseline	rain	baseline	rain	
Delta	baseline	-----	0.45	0.74	0.80	
	rain	-----	-----	0.26	0.34	
Lakeshore	baseline	-----	-----	-----	0.87	
	rain	-----	-----	-----	-----	
3) Bryn Mawr tributary						
		baseline	rain	baseline	rain	
Delta	baseline	-----	0.03	0.83	0.71	
	rain	-----	-----	0.04	0.04	
Lakeshore	baseline	-----	-----	-----	0.82	
	rain	-----	-----	-----	-----	

fish first flee from snorkelers (reactive distance) can be much greater in open areas than for fish close to cover (Grant and Noakes 1987). At night, juvenile Chinook salmon are generally inactive, close to the bottom (Tiffan et al. 2010), and do not actively move away from the snorkeler. Overall, snorkeling proved to be an effective sampling technique for observing juvenile Chinook salmon; however, its effectiveness was limited primarily by turbidity and depth (too shallow). To overcome these limitations, we employed other techniques (beach seining, electrofishing, and surface observations) on a limited basis. The use of a beach seine also allowed us to collect stomach samples for diet analysis.

Based on the habitat use patterns of juvenile Chinook salmon in Johns Creek, a suitable stream for juvenile Chinook salmon should have a wide variety of habitat features, which would take into account the change in habitat use of Chinook salmon as they grow. Glides (shallow, slow water habitats < 0.35-m depth) were used extensively

in February and early March. After late March, Chinook salmon were usually in deeper pools; however, they were rarely observed in pools greater than 0.9 m depth. Additionally, the presence of some type of overhead cover may be an important habitat feature for juvenile Chinook salmon (Brusven et al. 1986; Meehan et al. 1987; Tabor et al. *in press*) to reduce predation risk.

The density of Chinook salmon in the convergence pool of Johns Creek was considerably lower than in the upstream reach. Low density in the convergence pool may have been due to a combination of suboptimal habitat conditions and presence of other fish species. Much of the convergence pool was deeper than 0.9 m deep and some of the banks were armored with rip rap. Also, there was little woody debris and riparian vegetation. Potential predators of Chinook salmon, such as largemouth bass, smallmouth bass (*M. dolomieu*), large trout, and prickly sculpin (*C. asper*), were commonly observed in the convergence pool, thus Chinook salmon may avoid this area. Besides predators, the convergence pool also had large numbers of potential competitors including juvenile peamouth (*Mylocheilus caurinus*), juvenile sunfish (*Lepomis* spp.), threespine stickleback (*Gasterosteus aculeatus*), and prickly sculpin. In the upstream reach, few other fish species were present and the habitat conditions appeared to be better than the convergence pool.

As juvenile Chinook salmon grow, their requirements for space and food increase (Chapman 1966) and their habitat preference changes to faster and deeper stream sections (Everest and Chapman 1972; Hillman et al. 1987). Johns Creek and other small tributaries may not be able to support many of these larger fish. In Johns Creek, we observed a steep decrease in their abundance from February to June. Additionally, juvenile Chinook salmon in June were primarily found in larger tributaries where space and food is likely more abundant. Also, faster and deeper stream sections can be more prevalent in larger tributaries than in small tributaries. Our results were consistent with results found for other stream-dwelling salmonids (Elliot 1993, Dunham and Vinyard 1997) where their abundance is self-thinning due to growth and intense competition. While juvenile Chinook salmon abundance in nonnatal tributaries is likely influenced by intraspecific competition and changes in habitat preference, other factors, such as high discharge events, abundance of other

fish species (competitors and predators), water quality, and temperature, may also affect their use of these tributaries.

Delta areas appeared to be especially valuable habitat for juvenile Chinook salmon. In Lake Washington and Lake Sammamish, delta areas of larger tributaries provide large areas of shallow water that is preferred by juvenile Chinook salmon (Tabor et al. *in press*). Additionally, delta areas typically have gentle slopes and small substrates that are preferred by juvenile Chinook salmon (Curet 1993; Tiffan et al. 2002; Sergeant and Beauchamp 2006; Johnson et al. 2007; Tabor et al. *in press*). In Lake Quinault in western Washington, delta areas had the highest shoreline density of juvenile Chinook salmon of all shoreline habitat types (Tabor et al. 2006). Besides providing suitable physical habitat conditions for juvenile Chinook salmon; delta areas may also be an ideal foraging location because both lake- and stream-origin prey is available. This appeared to be particularly important following rain events.

Although differences in the diet between lakeshore and tributary deltas during baseline conditions were not pronounced, Chinook salmon at tributary deltas do utilize some prey from the tributary. At tributary deltas, benthic insects (chironomid larvae and ephemeroptera nymphs) and terrestrial insects were more prevalent in the diet than at lakeshore sites. Occasionally, some prey types (e.g., larval simuliids and rhyacophiliids) were consumed at tributary deltas that most likely came from a stream. Prey availability in these small streams is not well known. In Johns Creek, chironomid pupae and adults also made up a major portion of the diet of juvenile Chinook salmon (Tabor et al. 2006); therefore, we would expect the diets of lakeshore and tributary delta fish to be similar to some degree. In the Lake Washington basin, chironomids consist of several species that inhabit a variety of habitats (White 1975) and identifying them to genera or species may allow us to better detect differences in juvenile Chinook salmon diets between lakeshore and tributary deltas.

Differences between the lakeshore and tributary deltas were more pronounced for samples taken after a rain event than during baseline conditions. High discharge events likely displaced downstream a large number of small invertebrates (especially oligochaetes) that juvenile Chinook salmon and

other fish were able to consume. White and Harvey (2007) also found a large increase in the consumption of oligochaetes by rainbow trout (*O. mykiss*) and cutthroat trout (*O. clarkii*) during high discharge events in northwestern California streams. During our May Creek rain-event sample, we also collected nine cutthroat trout (range, 147-190 mm FL) that had consumed large numbers of terrestrial isopods (38% of diet by weight); which was unlike previous diet sampling of cutthroat trout in the littoral zone of south Lake Washington (Nowak et al. 2004). In streams, invertebrate drift typically increases during high discharge events (Anderson and Lehmkuhl 1968), but this increase may not be enough to compensate for the decreased ability of salmonids to detect drifting prey due to increased turbidity levels (Sweka and Hartman 2001). However, once the stream enters the lake, water velocities and turbidity levels are reduced and foraging conditions are improved; therefore, deltas areas may be an ideal foraging location following a rain event.

Our results suggest nonnatal tributaries in Lake Washington and Lake Sammamish are valuable habitat features for juvenile Chinook salmon. Even extremely small tributaries may benefit juvenile Chinook salmon, especially during January through March. Identification of nonnatal streams can aid land-use managers with recovery efforts of Chinook salmon. In some cases, nonnatal tributaries have been extensively altered (e.g., placed in a culvert) and are in need of restoration efforts. Restoration and preservation of these nonnatal tributaries should be considered as one tool in the recovery of Chinook salmon populations. In this study we documented the use of nonnatal tributaries in Lake Washington and Lake Sammamish; however, additional research is needed to fully understand the overall role these streams have on this population of lake-dwelling Chinook salmon. For example, what percent of juvenile Chinook salmon utilizes nonnatal tributaries; are growth and survival rates improved in nonnatal tributaries; and is there greater abundance of prey in nonnatal tributaries than in the nearshore area? Another important area of research involves water quality concerns of nonnatal tributaries and their potential to deliver high levels of contaminants to fish. Additionally, research is needed in other systems to determine if our results are applicable to other lake-dwelling populations of ocean-type juvenile Chinook salmon.

Acknowledgements

Scott Sanders, Daniel Lantz, Hwa Kim, Jonathan Hyde, Sergio Camacho, Heather Tschaekofske, and Eric Bixler of the U.S. Fish and Wildlife Service (USFWS) assisted with the field sampling. City of Renton and Lake Sammamish State Park personnel provided logistical support with our field sampling. We also thank Barbee Mill Company and other private landowners for allowing us access to their property. Steve Dilley and Scott

Sanders, USFWS, assisted with the figures. The study was financially supported by Seattle Public Utilities (SPU), and administered by Keith Kurko and Julie Hall. Comments provided by Julie Hall and Michele Koehler, SPU, and two anonymous reviewers greatly improved earlier versions of this manuscript. The findings and conclusions in this article are those of the authors and do not necessarily represent the views of the U.S. Fish and Wildlife Service.

Literature Cited

- Anderson, N. H., and D. M. Lehmkuhl. 1968. Catastrophic drift of insects in a woodland stream. *Ecology* 49:198-206.
- Brusven, M. A., W. R. Meehan, and J. F. Ward. 1986. Summer use of simulated undercut banks by juvenile chinook salmon in an artificial Idaho channel. *North American Journal of Fisheries Management* 6:32-37.
- Chapman, D. W. 1966. Food and space as regulators of salmonid populations in streams. *American Naturalist* 100:345-357.
- Chippis, S. R., and J. E. Garvey. 2007. Assessment of diets and feeding patterns. In C.S. Guy and M.L. Brown (editors), *Analysis and Interpretation of Freshwater Fisheries Data*. American Fisheries Society, Bethesda, MD. Pp. 473-514.
- Conover, W. J. 1999. *Practical Nonparametric Statistics*. John Wiley and Sons, New York.
- Curet, T. 1993. Habitat use, food habits, and the influence of predation on subyearling chinook salmon in Lower Granite and Little Goose Reservoirs, Washington. M.S. Thesis, University of Idaho, Moscow.
- Dunham, J. B., and G. L. Vinyard. 1997. Relationships between body mass, population density, and the self-thinning rule in stream-living salmonids. *Canadian Journal of Fisheries and Aquatic Sciences* 54:1025-1030.
- Elliot, J. M. 1993. The self-thinning rule applied to juvenile sea-trout, *Salmo trutta*. *Journal of Animal Ecology* 62:371-379.
- Everest, F. H., and D. W. Chapman. 1972. Habitat selection and spatial interaction by juvenile chinook salmon and steelhead trout in two Idaho streams. *Journal of the Fisheries Research Board of Canada* 29:91-100.
- Grant, J. W. A., and D. L. Noakes. 1987. Escape behaviour and use of cover by young-of-the-year brook trout, *Salvelinus fontinalis*. *Canadian Journal of Fisheries and Aquatic Sciences* 44:1390-1396.
- Healey, M. C. 1991. Life history of chinook salmon (*Oncorhynchus tshawytscha*). In C. Groot and L. Margolis (editors), *Pacific Salmon Life Histories*. UBC Press, Vancouver, British Columbia. Pp. 313-393.
- Heggenes, J., A. Brabrand, and S. J. Saltveit. 1990. Comparison of three methods for studies of stream habitat use by young brown trout and Atlantic salmon. *Transactions of the American Fisheries Society* 119:101-111.
- Hillman, T. W., J. S. Griffith, and W. S. Platts. 1987. Summer and winter habitat selection by juvenile chinook salmon in a highly sedimented Idaho stream. *Transactions of the American Fisheries Society* 116:185-195.
- Johnson, J. E., S. P. DeWitt, and J. A. Clevenger, Jr. 2007. Causes of variable survival of stocked Chinook salmon in Lake Huron. *Fisheries Research Report 2086*, Michigan Department of Natural Resources, Lansing.
- Johnson, J. H. 1981. Comparative food selection by coexisting coho salmon, chinook salmon and rainbow trout in a tributary of Lake Ontario. *New York Fish and Game Journal* 28:150-161.
- Kiyohara, K., and G. Volkhardt. 2008. Evaluation of downstream migrant salmon production in 2007 from the Cedar River and Bear Creek. Washington Department of Fish and Wildlife, Olympia.
- Knaepkens, G., L. Bruyndonex, L. Bervoets, and M. Eens. 2002. The presence of artificial stones predicts the occurrence of the European bullhead (*Cottus gobio*) in a regulated lowland river in Flanders (Belgium). *Ecology of Freshwater Fish* 11:203-206.
- Knudsen, E. E., and S. J. Dilley. 1987. Effects of riprap bank enforcement on juvenile salmonids in four western Washington streams. *North American Journal of Fishery Management* 7:351-356.
- Koehler, M. E., K. L. Fresh, D. A. Beauchamp, J. R. Cordell, C. A. Simenstad, and D. E. Seiler. 2006. Diet and bioenergetics of lake-rearing juvenile Chinook salmon in Lake Washington. *Transactions of the American Fisheries Society* 135:1580-1591.
- Lister, D. B., R. J. Beniston, R. Kellerhals, and M. Miles. 1995. Rock size affects juvenile salmonid use of streambank riprap. In C. R. Thorne, S. R. Abt, F. B. J. Barends, S. T. Maynard, and K. W. Pilarczyk (editors). *River, Coastal and Shoreline Protection: Erosion Control Using Riprap and Armourstone*. John Wiley and Sons Ltd, New York. Pp. 621-632.
- Meehan, W. R., M. A. Brusven, and J. F. Ward. 1987. Effects of artificial shading on distribution and abundance of juvenile chinook salmon (*Oncorhynchus tshawytscha*). *Great Basin Naturalist* 47:22-31.
- Murray, C. B., and M. L. Rosenau. 1989. Rearing of juvenile chinook salmon in nonnatal tributaries of the lower Fraser River, British Columbia. *Transactions of the American Fisheries Society* 118:284-289.
- Nowak, G. M., R. A. Tabor, E. J. Warner, K. L. Fresh, and T. P. Quinn. 2004. Ontogenetic shifts in habitat and diet of cutthroat trout in Lake Washington, Washington. *North American Journal of Fisheries Management* 24:624-635.

- Schoener, T. W. 1971. Theory of feeding strategies. *Annual Review of Ecology and Systematics* 2:369-404.
- Sergeant, C. J., and D. A. Beauchamp. 2006. Effects of physical habitat and ontogeny on lentic habitat preferences of juvenile Chinook salmon. *Transactions of the American Fisheries Society* 135:1191-1204.
- Sweka, J. A., and K. J. Hartman. 2001. Influence of turbidity on brook trout reactive distance and foraging success. *Transactions of the American Fisheries Society* 130:138-146.
- Tabor, R. A., K. L. Fresh, R. M. Piaskowski, H. A. Gearns, and D. B. Hayes. *In press*. Habitat use of juvenile Chinook salmon in the nearshore areas of Lake Washington: effects of depth, shoreline development, substrate, and vegetation. *North American Journal of Fisheries Management*.
- Tabor, R. A., H. A. Gearns, C. M. McCoy III, and S. Camacho. 2006. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington basin, annual report, 2003 and 2004. U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, Lacey, Washington.
- Tiffan, K. F., R. D. Garland, and D. W. Rondorf. 2002. Quantifying flow-dependent changes in subyearling fall chinook salmon rearing habitat using two-dimensional spatially explicit modeling. *North American Journal of Fisheries Management* 22:713-726.
- Tiffan, K. F., T. J. Kock, and J. J. Skalicky. 2010. Diel behavior of rearing fall Chinook salmon. *Northwestern Naturalist* 91:342-345.
- White, J. L., and B. C. Harvey. 2007. Winter feeding success of stream trout under different streamflow and turbidity conditions. *Transactions of the American Fisheries Society* 136:1187-1192.
- White, S. T. 1975. The influence of piers and bulkheads on the aquatic organisms in Lake Washington. M.S. Thesis, University of Washington, Seattle.
- Zaret, T. M., and A. S. Rand. 1971. Competition in tropical stream fishes: support for the competitive exclusion principle. *Ecology* 52:336-342.

Received 28 December 2010

Accepted for publication 21 April 2011

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

To Peter Rosen

Issaquah Development Services Department
1715 12th Avenue NW
P.O. Box 1307, Issaquah, WA 98027-1307
(425) 831-3094

Subject: Citizen comments on SDP15-000002, Gateway Apartments

Please find the following comments / responses to the Gateway Apartment (Mull) SEPA that have been collected from residents of Summerhill, Sammamish Point Terra Highlands, Sammamish Hills, Monahan HOA's.

Over riding site issues

1. This SEPA is very broad sweeping in the answers and the City tables or studies which support the statements not clearly listed so be able to reference. The actual parcels and parcel acres and developable acres for this "phase 1" are not consistently documented thru out the various studies are reference in the Staff report. Some places in the reports like with credit for public-park projects are combined yet not for others. Very confusing and do not understand with reference to Schneider Creek Stream Corridor.

Staff Response: The SEPA determination specifically references the technical studies and information that were reviewed and considered for the environmental analysis, listed in the "Notes" section of the determination. The findings on impacts are based on the referenced studies and information and the SEPA mitigation measures are quantified and directly related to the specific findings of project impacts.

I understand there has been some confusion regarding parcel sizes, developable acres, and credit for the public park. However, these factors do not affect the analysis of environmental impacts under SEPA. SEPA accurately considered the project boundaries, development impacts of 400 apartment units, and the potential impacts and mitigation for Schneider Creek and wetland buffers.

2. Tibbetts Creek is to be relocated as part of the Rowley Hyla Project when and where how does this impact the buffer areas, park area and the multi modal trail. When will this trail actually be viable safe trail connection for present and future residence?

Staff Response: The section of Tibbetts Creek that will be relocated in the future would not further extend the buffer into the developed area of the Gateway site or the proposed park area. The stream buffer would still be within the large wetland complex associated with Tibbetts Creek and depending on the stream re-location the buffer could potentially extend onto the Arena Sports site parking area and/or the Rowley property businesses fronting on NW Poplar Way.

Gateway will be constructing a shared use (pedestrian, bicycle) elevated boardwalk trail across the Tibbetts Creek wetland and bridging Tibbetts Creek. The Gateway applicants are presently negotiating with Rowley Development to extend the trail on the Rowley property to connect to 19th Ave NW.

3. How does this trail impact the Anti Aircraft Stream Corridor is within 200 ft of this project but not listed?

Comments submitted to the City staff are reflected "as received" and the only editing made is to number them.

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

Staff Response: *Anti-Aircraft Creek is approximately 750 feet to the south of the proposed Gateway trail crossing the Tibbetts Creek wetland. A separate project to relocate the Anti-Aircraft Creek culverts crossing Newport Way NW would shift the stream corridor further south and increase the distance from the trail. The trail crossing would be far to the north of the current and proposed location of Anti-Aircraft Creek and its associated stream buffer.*

4. Development is in according to Issaquah 2011 flood plan does show property is part the 100 flood plan and at least have is saturated annually per FEMA and City studies.

<http://www.ci.issaquah.wa.us/DocumentCenter/View/1050>

Staff Response: *The Tibbetts Creek 100-year floodplain on the Gateway site was revised (FEMA Letter of Map Revision or LOMR) when WSDOT replaced the Tibbetts Creek culverts under I-90.*

The map referenced above (Regulatory Areas, Figure 3) is used for stormwater modeling assumptions. It shows the Gateway site with historic high groundwater and seasonally saturated soils versus assuming a forested pre-development condition for purposes of stormwater modeling.

5. If Tibbetts is to be relocate what will the flood plan look like then?\

Staff Response: *It's difficult to say what the floodplain will be when Tibbetts Creek is relocated. However, the Tibbetts Creek re-location completed by Rowley in 2000 substantially increased the channel width, included a floodplain bench within the channel, and thereby the stream re-location contributed to the reduced FEMA floodplain boundaries together with the replacement of culverts under I-90.*

6. What is the actual acreage of each project 1 and 2? Why are they being separated and not as they both will impact Schneider Creek and Traffic Impact?

Staff Response: *I assume the reference to project 1 and 2 are the Gateway apartments (phase 1) and the Gateway senior housing (phase 2) projects. These are 2 separate land use applications and they are in different permit review stages. Phase 1 is 23.81 acres. Phase 2 is not part of this SEPA review. The traffic impacts and impacts on Schneider Creek differ between the 2 separate project applications and therefore the impacts will be reviewed separately.*

7. Why are the projects combined for the park credit but not combined for the SEPA and stormwater permit as Schneider Creek Corridor is in both of these projects?

Staff Response: *The parks credit is not an environmental issue that was addressed under SEPA and the issue will be discussed in the Briefing Memo prepared for the Development Commission public hearing. The City in both the CIP and City Council 2015 goals state that the entire stream and wildlife corridors are to be studied and enhanced why is this Gateway Apartment Project only looking at stream buffers and not Corridor for all the 3 streams in this project?*

<http://your.kingcounty.gov/dnrp/library/water-and-land/salmon/kokanee/kokanee-workgroup/category-2-streams-kokanee-blueprint.pdf#page=6>

<http://www.kingcounty.gov/environment/animalsAndPlants/salmon-and-trout/kokanee.aspx>

Staff Response: *The 2015 City Council goals and the CIP did not address studies for entire stream and/or wildlife corridors.*

Comments submitted to the City staff are reflected "as received" and the only editing made is to number them.

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

The referenced/linked study, "Blueprint for Restoration and Enhancement of Lake Sammamish Kokanee Tributaries" August 2014, was a collaborative effort of the Lake Sammamish Kokanee Work Group (KWG) composed of King County, U.S. Fish and Wildlife, Washington State Fish and Wildlife, Cities of Issaquah, Sammamish, Redmond and Bellevue, and others. Information from this study was referenced in the applicant's Critical Areas Report and in the SEPA determination regarding Kokanee use and habitat of Schneider Creek.

The SEPA determination addressed only Schneider Creek because it's located on the part of the Gateway apartment site that will be developed and therefore potentially impacted. Tibbetts Creek is off-site and the only project impact would be crossing the associated wetland and the creek with an elevated shared-use trail. This impact was evaluated and mitigated for in the SEPA determination.

SEPA mitigation requirements to enhance the stream buffer of Schneider Creek would improve fish and wildlife habitat on the site; by providing shade/cover to maintain cool water temperatures, increase plant species diversity and structure, provide organic inputs to support macroinvertebrates and insects, and eventually to supply wood recruitment to the stream. The stream buffer enhancement plans also include habitat features for wildlife such as snags, buried rootwads and stumps. These measures will support a continuous wildlife corridor across the site through the Schneider Creek stream buffer.

8. Has the City of Issaquah studied the total existing stream discharge from the Bentley House project and the build out of the Terra Highlands II on Pine View Dr all which drain into Schneider? Or the all the proposed projects that may effect Schnieder including the redesign of Newport Way?

I can only find a 2002 storm water study and the CIP storm water plan did not study this area of the City only the core down town area.

Staff Response: Each of the development projects referenced above were reviewed according to applicable stormwater standards when the developments were approved by the City. Stormwater standards are specifically adopted to protect stream and fish habitat and to mitigate the impacts of development. The "redesign" of Newport Way will not affect stream discharge in Schneider Creek.

9. Same hold true for the east end of the development and Tibbetts as the City of Issaquah studied the total existing stream discharge from the Talus expansion, the new development planned on upper Tibbetts Valley and Goodes Corner, Bergsman Anti Aircraft Creek relocation or Riva project and other projects in the pipe line? CIP stormwater study did not this area in that study nor did the Rowley Hyla Project. Nor had the redesign of Newport Way been study for what impact it may on Tibbetts Stream Corridor and flooding

Staff Response: Similar to the response above.....all development projects and City road improvements are evaluated according to applicable stormwater standards, which are specifically intended to protect stream and fish habitat and to mitigate the impacts of development.

10. Current Sammamish Point residents are experiencing sinking of their building foundations. There has been storm water flowing over Newport Way from Schneider Creek and the uphill wetlands adjacent to Spyglass with heavy rains. Issaquah Public Works last spring was investigating this issue last spring but I have seen no reports issued on their findings.

Staff Response: The proposed Gateway apartments development is downstream of the Sammamish Point condos and Spyglass; therefore, the Gateway project would not contribute stormwater flows or

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

worsen the described situation. We encourage you to contact Public Works regarding their investigation of this issue.

11. Also currently Sammamish Plot Agreement with the City supports a 10 ft screening easement on the Mull property which is not mentioned in the Staff or developers reports. Grading and leveling for the 2.2 acre public park and the multimodal trail which is proposed to abut up to this existing development could greatly jeopardize all the Sammamish Point foundation and road ways. We see no mention of this in the SEPA or project report that would protect this buffered area during or after construction. See site plan for Sammamish Pointe parcel on KC parcel view OPP199712011688.pdf already submitted to A. Tarce and P Rosen.

Staff Response: When the Sammamish Pointe Condos were developed (1997), wetlands were identified on the Mull site and therefore the condo property boundary reflected the wetland/wetland buffer boundary and included the 10-foot easement. Grading for the park will be reviewed in detail with construction permits to ensure the grading would not impact foundations of the Sammamish Pointe Condos or roadways.

12. Central Area Plan studies / EIS did not include this section of Newport Way road conditions, stormwater, wildlife or stream Corridors in its studies so all need to be by study the City to support the staff conclusions.

Staff Response: The Central Plan EIS did include this section of Newport Way and considered stormwater, wildlife/stream corridors in the EIS programmatic evaluation.

13. City has not updated the Tibbetts East Cougar Subarea Plan the area which is south of to CIP area and whose streams and wildlife corridors connect to this project.

Staff Response: The subarea plan was approved in 1990. The land that was included was not all within the city limits at that time. Since annexation, new policies have been written in the comprehensive plan to reflect these areas, so the subarea plan from 1990 is no longer used as a policy document for policy direction.

14. CIP Village standards are not clearly listed or detail in the Staff report and thus the SEPA needs to have tables and documented pages that support up staff board statements.

Staff Response: The purpose of the SEPA determination is to evaluate potential environmental impacts of the proposed development. It is not intended to duplicate or evaluate a project per the detailed CIP standards.

15. "The project is adjacent to Newport Way, an important regional cycling route and part of the

Mountains to Sound greenway trail network. A new shared-use regional path will provide pedestrian and bicycle access between Newport Way and the future Rowley Properties Hyla Crossing project to

Issaquah Farm SEPA Environmental checklist (WAC 197-11-960) April 2015 Page 17 of 23

the east, offering a low-traffic alternative to Newport Way for users navigating the Mountains to Sound Greenway."

Currently this regional path way corridor is identified by the Mountains to Sound Greenway. The path way in current state is identify as unsafe and in need of improvement. Currently the City of Issaquah has

Comments submitted to the City staff are reflected "as received" and the only editing made is to number them.

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

no funds identity in its 20 year plan to improve this regional pathway. The City also currently has no contract in place or according to the Rowley Properties Hyla Crossing agreement if something is not changed they can do nothing about this trail to connect this Gateway project to Central area for 30 years.

Staff Response: The Gateway development will construct the regional shared use trail as part of their frontage improvements on Newport Way. In addition, the applicant is constructing a Shared Use Route through the site which will cross Tibbetts Creek and the applicant is negotiating with Rowley properties to connect the trail to 19th Ave NW. This would provide a separate, safe pedestrian/bicycle route from Newport Way.

16. b. "What views in the immediate vicinity would be altered or obstructed? [help]"

In general, views across the site will be obstructed by new buildings. This includes views to Lake Samammish and Cougar Mountain.

The two 5-story buildings located on the northern edge of the site would be prominently visible by people traveling in vehicles on I-90, eastbound traffic in particular. However, this visibility reflects City goals to establish a sense of arrival to Issaquah for motorists traveling east on I-90.

Proposed measures to reduce or control aesthetic impacts, if any: [help]"

The project's two five-story residential buildings were designed with a distinctive architecture and intentionally placed at the north edge of the site to create a sense of arrival and establish an urbanscale for Central Issaquah, primarily for motorists traveling east on I-90."

The Central Area Plan for this Gateway project was not to block the view of the regional landscape mountains at the western gateway with 5 story building but to have stair step buildings with openspace that would blend into the hill side and draw the views up to the forested mountain tops and reflect a Village area not a densely populated buildings without and open green spaces. This area was to blend in with the existing single family homes in the area with possible small business and village amenities. Buildings were to reflect. This area was not to reflect the denser more compact area of the downtown area with already has no green spaces but reflect a welcoming Village atmosphere.

Staff Response: The applicant provided a view analysis to demonstrate the Gateway project would not block views of the upper forested hillslopes of Cougar and Squak Mountains.

The Gateway development incorporates substantial green, open space areas including the 2 acre park area on the south side of the development and the Schneider Creek stream corridor. The Village Residential zoning requires a minimum floor area ratio (FAR), the zoning requires higher density development, consistent with the policies and standards of the Central Issaquah Plan.

17. c. "Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]"

Staff Response: The proposal is dedicating approximately 2 acres of public park/recreation area on-site.

18. Note with the current definition in the CIP for parkway (**not** defined as such in the developers traffic study) does not allow for safe crosswalks. Calls for a narrow high speed two lane road. This is does not encourage or allow existing citizens to safely

Comments submitted to the City staff are reflected "as received" and the only editing made is to number them.

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

access on foot or motor vehicle the proposed small park. Most of the development along Newport Way is on the south side of the road. Mitigation to redesign Newport for safe bike and foot travel along Newport Way and across for present developments if this park is to work. Also note a 2.2 acres park is relative small to handle all the new development plus existing for the Western end of Newport Way.

Staff Response: Please see the briefing memo for a response to this comment.

19. SEPA MDNS comments

4. Wildlife Habitat - Eagles and Osprey both nest in the vicinity and use this open space a feeding area. Pileated, flickers and downy woodpeckers are residence of the area. Although reduce in number do to the increase in coyotes, quail also have been observed by Residences of the area have observed both over the years. Black bear, bob cat, cougar and deer all use this property for feeding on berries and hunting grounds and have been observed. Concern that there appears to be no plan to address wildlife corridor along Schneider Creek and only a brief mention on Tibbetts and that adjacent wetlands. All walkway over the streams need to be elevated to the 10 ft for wild life passages. Wetland and stream buffs need to be protected from this dense population of this development and would look for some more elevated railed interactive/ interpretive walkways along so as to education and monitoring by the residences so these area do not become play spaces and degraded.

Staff Response: The planting enhancement required for the stream buffer of Schneider Creek would improve fish and wildlife habitat on the site; by providing shade/cover to maintain cool water temperatures, increase plant species diversity and structure, provide organic inputs to support macroinvertebrates and insects, and eventually to supply wood recruitment to the stream. The stream buffer enhancement plans also include habitat features for wildlife such a snags, buried rootwads and stumps. These measures will support a continuous wildlife corridor across the site through the Schneider Creek stream buffer.

A permit condition will require the elevated trail over the Tibbetts Creek wetland to allow for wildlife passage.

--Sept 8 2015 _"The one thing I thought they missed is that juvenile Chinook salmon can also be present in Schneider Creek. They have been documented downstream of I-90 and could possibly occur upstream but no one has looked that I'm aware of. Juvenile Chinook salmon also use the lower end of Tibbetts Creek. Chinook salmon are a federally protected species and should have been addressed in their document. I've attached our research paper that lists Schneider and Tibbetts creeks.

Roger Tabor
U.S. Fish and Wildlife Service
Lacey, Washington

Staff Response: The report emphasizes juvenile Chinook use in the delta area of the creeks adjacent to Lake Sammamish. The Gateway site is upstream of the delta and across I-90 from the lower stream segment. The Critical Area Report concludes that the segment of Schneider Creek on the subject site is limited in its ability to provide winter rearing or refugia habitat for anadromous fish because of the gradient of the stream, the current channel morphology and lack of pools.

5. Stormwater The pre Site assumptions as this SEPA state are not correct and given this land was once in a flood plan and City studies so the ground to be saturated normally but with old drain field system that

Comments submitted to the City staff are reflected "as received" and the only editing made is to number them.

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

was install to drain the water being disturbed during construction the statement that the study underestimated the flow would appear to be a given. Also the study did not mention the existing known problems of the draining up land wetlands and Schneider Creek flowing over Newport Way in the heavy rainy season. These issues need to be studies for impact to this project and any improvements to Newport Way since the entrance is located in this area and is very close to the protected area on the northside of Newport Way

Staff Response: The site is no longer mapped in the FEMA floodplain. A floodplain map revision (LOMR) was completed after WSDOT replaced Tibbetts Creek culverts under I-90. The drainage issues will be considered with review of stormwater construction plans.

6. Noise The placement of the new trail and park is adjacent to the property line and backyards of SammPointe residence. Current standards for the single family area have required 20 screening on both sides of lot lines. This should be a min. based on the public trail and the new multi story units proposed along this south lot line.

The develop has not stated any additional mitigation for future residence of the two 5 story buildings they are using to block noise from I90 at least triple pain window, air-conditioning units, and additional insulation for noise abatement need to be done. Also some light screen on the window to reduce headline glare etc.

Staff Response: The current development standards for the Gateway apartments, as well as the Sammamish Pointe condominiums, should that property redevelop or expand, is the Central Issaquah Development and Design Standards (CIDDS). The CIDDS does not require any screening for abutting properties. There are no required side and rear setbacks for properties in the Village Residential Zone, which includes both the Gateway property and all adjacent properties. However, the Applicant intends to retain the significant trees at the southern edge of the property, which will ensure that a vegetated area serves as a defacto screen between the Sammamish Pointe Condos and the Shared Use Route and Neighborhood Park.

As noted in the SEPA checklist, the Applicant will hire an acoustic engineer to determine the appropriate construction methods to mitigate the I-90 noise. While triple pane windows could be one option for noise mitigation, modern construction technology has advanced and there are other viable solutions. This level of detail in building design is not required for SDP approval and will be reviewed by City staff during building permit review.

Headlight glare will not be an issue for any ground floor residential units because the streets have parallel parking and a landscape edge with evergreen shrubs effectively serving as screening for the residential units. The five-story buildings will not be adversely impacted by vehicular traffic glare from I-90 because of the orientation of the residential units, the layer of trees that will be planted along the I-90 edge of the property, and the fact that the lowest level of residential units are raised one story above the I-90 grade.

8. Traffic The traffic study done by the developer is based on **40 mph** and not the current planned road design. New speed limit is 30mph and the City traffic study which for this stretch has not been completed.

New traffic study need to be done with new speed and new design when City study is known.

Comments submitted to the City staff are reflected "as received" and the only editing made is to number them.

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

Staff Response: The traffic study will be updated to analyze and recommend the appropriate road design based on the lowered speed limit as adopted by the City Council.

Current CIP road standards do not fit with the flow of the pedestrians and bikes for this 2.3 mile stretch were over have of the residence will be on the southside of the road and need safe access to the walking path or sidewalks on the north. The s curves along a lot of the roadway are not called out for siteline for this entrance. The traffic study did not supply any mitigation for the Samm.Pointe citizens who will be impact by traffic back up blocking their entrance on the west side of their development which is heavily used currently.

-The impact of the 400 plus units should require **two** entrances to the development and a more direct route to I90. Thus the existing connection on Poplar needs to be made not only for emergency vehicles but construction and a permanent entrance to this development. This road access was identified in the City CIP Pickering meetings and the Citizen Task force meeting if mid density verses business or private homes were to be allowed.

No trucks are currently allowed on this already congested stretch of Newport Way nor is there any on street parking with the walking path on the north side the majority of construction traffic needs to be required use this Poplar entrance to reduce the impact to current residence and reduce safety issues on Newport Way.

Several school bus stops are along this area and step made to be made to protect these stops for construction and make certain these stops.

New ones required are made safe for the children. Exhaust and noise from trucks using this corridor to access the site would impact the health of all the current residence.

City need to make certain safe calming measures are done for existing road before construction is started and new residence move for mitigation for existing residence along Newport Way

Staff Response: Please see the Briefing Response Memo dated Sept. 16, 2015, which has staff response to these items.

9. Bicycle and Pedestrian Facilities City need to make certain if the new mutil model trail is build it has agreement for who is to maintain and have money in budget if City is to assume. Trail need to be fully functioning thru Hyla Development and identify who is paying if Tibbetts Creek is relocated later and rebuild is needed. Fund for safe sidewalks and bike routes along Newport Way to the transit center must be in place since not regional transit is servicing this area and residents need safe way into Issaquah especially on dark rainy mornings.

Staff Response: Funding for Newport Way system improvements is a policy issue for the City Council and should not be confused with project specific impacts covered by this SEPA review. See trail connection staff response to comment #16 above.

10. Public Services the developer should be assessed a ongoing mitigation service fee for public service since it is know that apartments have higher crime and requirements for public service than single

Comments submitted to the City staff are reflected "as received" and the only editing made is to number them.

Part of Attachment 6

City Responses to SEPA Comments by Homeowners Associations along Newport Way c/o Mary Lynch

family owner occupied units which is in the surrounding area. Need to be made to protect Sammamish Point and Spyglass from overflow parking issues and noise from the park and apartment club house.

Response: Mitigation fees for public services are required at the time of development and are intended for capital facility costs not for operational costs.

11. Grading of the area adjacent to Sammamish Point need to be closely studies and mitigated to make certain that the foundation of the buildings are not compromised by the grading or the continue sidling for saturation during the raining season in this graded area.

Response: The grading will be reviewed with more detailed construction-level grading plans.

We are available to clarify any of the above comments.

Mary Lynch, NW Newport Way Neighborhood Community Group

2690 NW Oakcrest Drive

Issaquah WA 98027