City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Yarrow Creek Stream Channel Restoration
Proposal Address:	**3265 103rd Place NE (Generally)**
Proposal Description:	Land Use approval of retroactive application for Critical Areas Land Use Permit to correct damage caused by City of Bellevue Utilities Operations and Maintenance work. The project includes the restoration of the channel of Yarrow Creek directly adjacent to SR 520 upsteam of an abandoned section of Lake Washington Boulevard NE. The restoration activity was completed as an emergency action allowed under LUC 20.25H.055.B, LUC 20.25H.055.C.3.b, and WAC 197-11-880. The restoration includes the placement of wood and rock within the stream channel and the replanting of the streambank riparian area.
File Number:	**09-104532-LO**
Applicant:	**Don McQuilliams, City of Bellevue Utilities**
Decisions Included:	Critical Areas Land Use Permit (Process II. LUC 20.30P)
Planner:	David Pyle, Planner
State Environmental Policy Act Threshold Determination:	**SEPA Exempt – WAC 197-11-880**
Director's Decision:	**Approval with Conditions** Michael A. Brennan, Director Development Services Department By: _____ Carol V. Helland, Land Use Director

Application Date:	January 28, 2009
Notice of Application Publication Date:	February 12, 2009
Decision Publication Date:	May 13, 2010
Project/SEPA Appeal Deadline:	May 25, 2010

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

I. Background

A. General Project Description

This is a retroactive approval of a critical areas land use permit for stream stabilization and restoration in response to excessive sediment removal performed by the City Utilities Department Operation and Maintenance Division in a tributary to yarrow creek. Work (retroactively) authorized under this permit was completed through emergency approval in January of 2009 (File #09-104534-GH) and is currently under evaluation through active maintenance and monitoring. This staff report is intended to document the action taken to restore the stream and resolve the unpermitted excavation activity.

The issuance of this retroactive approval has been delayed in response to additional planning efforts related to this stream section underway by the City Utilities Department and by the Washington State Department of Transportation in relation the SR 520 expansion project. This is described in greater detail below.

B. Need for Correction

On or about September of 2008, the Utilities Department Operations and Management Division Storm and Surface Water maintenance crew, operating under a valid programmatic permit (08-123427-LM and 08-123428-GD) for the routine removal of sediment as maintenance, performed excavation work around a culvert drop structure within a tributary of Yarrow Creek (specifically segment 70_01_23 as identified in the City's 2001 Stream Typing Inventory) adjacent to an existing access road (old remnant of Lake Washington Boulevard NE) just South of State Route 520. See Figure 1 for a vicinity map identifying the project location. At the time of the maintenance activities, the city permit allowed for the removal of up to 2 cubic yards of material at this location and the site was not identified on State HPA permits, although an HPA was required.

The section of Yarrow Creek where the unpermitted activity was performed is directly adjacent to SR 520. The culvert drop structure that was the target of the original excavation activity is a historic feature that was installed as part of the old Lake Washington Boulevard construction. This structure provides stream flow under the road prism where a City Utilities sewer main crosses over the stream. This structure protects the road prism and ensures stability and protection of the sewer line. Maintenance of this culvert structure was intended to reduce the quantity of sediment accumulation that was potentially causing the overtopping of the road grade and the erosion of the road prism endangering the City's Utility infrastructure. The sediment that had accumulated and was removed was likely related to a massive bank failure upstream of the project site at the point where this section of stream crosses under 102nd Ave NE. This failure and erosion source is being addressed through separate permit and is described below in detail.

During the course of the maintenance activities, it was estimated by the Utilities Department that approximately 320 yards of material was excavated from the site, far beyond the 2 cubic yards allowed under the active city permit, and in violation of the City's codes and in violation of the Washington State Hydraulic Code. This resulted in the issuance of a correction notice from the City's Development Services Department Clearing and Grading Inspector who requested that an application for stream stabilization be submitted and restoration activities be undertaken at the site to stabilize and re-establish the stream channel and re-vegetate the surrounding disturbed areas. WDFW was also notified and the Utilities Department was informed by WDFW staff of the requirement to apply for a retroactive emergency HPA with a plan for restoration.

C. Interim Stabilization

In response to the sensitivity of the site and the possibility for further environmental impact shortly after the correction notice was issued the site was stabilized with erosion control netting and blankets at the direction of the Clearing and Grading inspector to prevent further erosion until such time that a restoration project could be implemented.

D. Stream Stabilization and Restoration – Project Design and Installation

Following issuance of the correction notice, a qualified consultant was contracted to develop restoration plans to stabilize the stream and restore those areas impacted by the unpermitted activity. Due to the sensitivity of the location and the potential for further environmental degradation, and considering the seasonal restrictions associated with aquatic resources, the project consultant, the Utilities Department, the Development Services Department, and WDFW agreed that immediate restoration of the site was appropriate. Final design plans were forwarded to the City and WDFW for review. Design components were reviewed and tentative initial approval was granted by the City through issuance of a Clearing and Grading Permit (09-104534-GH), issuance of an emergency SEPA exemption under WAC 197-11-880, and by WDFW through issuance of an emergency HPA. The HPA was granted with an expiration date of January 8th, 2009 providing a very short period to complete the work.

After approval of restoration plan design, the Utilities Department determined that the plans prepared by the consultant would be difficult to implement within the time frame granted by the HPA due to large quantities of fill materials that were identified as part of the plans. The plans were modified through revisions submitted to the City's Development Services Department and WDFW to reduce the need for fill material and instead implement the use of enhanced placement of large woody debris along with the restoration plantings. All parties agreed this was a viable approach and the revised plans were approved. Final project design consisted of utilizing logs and root mass to slow water movement and re-establish a channel condition in the stream. Logs were anchored and the stream banks were planted to help stabilize soils. The project design was determined to meet the requirements of LUC 20.25H.055.C.3.m. Final design plans are included as **Attachment 1** to this report. The HPA permit is included as **Attachment 2** to this report.

Following approval of the revised plans in the second week of January 2009, the Utilities Department mobilized work crews and completed the restoration work under the supervision of the restoration plan design engineer and landscape architect. The stream was bypassed and erosion control measures were put in place. Turbidity monitoring was started with readings taken at least twice per day during construction. Once the stream was diverted and the flow was minimal, a track hoe was carefully maneuvered into the channel to begin placing the large woody debris (LWD). The LWD was lowered from the access road into the holding area by use of a crane and with the assistance of the backhoe. Once the materials were roughly placed along the sides of the stream channel, the project design engineer directed the placement of the LWD. This process involved using the track hoe to set the LWD and nestle it into the stream channel in such a manner that would re-establish a functional stream channel and minimize erosion due to down cutting of the stream. Due to the small size of the channel, the LWD had to be carefully set one log at a time from the bottom to the top of the project area to allow for egress of the excavator. With placement of the LWD completed, the track hoe was driven out of the site on the same access that had been used for ingress. Photos taken

before, during, and after construction are included in Figure 2 below.

Figure 2 – Project Photos

After allowing the LWD to sit for a few hours, the stream was slowly released and flows began to establish the new channel. After a short but intense rainfall that evening, the stream had established several pools, eddies and sediment traps around and behind the LWD as designed.

To date, the channel and restoration plantings are being monitored on a regular basis. Regular monitoring will continue for a period of three years. See conditions of approval in Section X of this report.

E. Retroactive Permit Review

Documentation was developed, application materials prepared, and the Utilities Department applied for a Critical Areas Land Use Permit on January 28, 2009 following the completion of restoration work. One revisions letter was sent in response to the application materials requesting additional information necessary to approve the project. Questions presented in the comment letter were responded to. The commenter responded that they had no additional comments on the project. Comment letters are included as **Attachment 3** to this staff report. Review of materials submitted indicated the need for application of conditions to the approval to ensure long term project success. See conditions of approval in Section X of this report.

F. Other Projects in Vicinity

i. **SR 520 -** This project is directly adjacent to SR 520 and is within the area of influence associated with the SR 520 expansion project. The culvert that supports the sewer main in the remnant section of Lake Washington Boulevard SE is planned for removal as part of the SR 520 project, although details are currently in negotiation between the City and WSDOT. This culvert removal is being done in combination with a fish passage project under SR 520 and provides essential habitat connectivity to upstream reaches. It is likely that the areas restored as part of this project will be incorporated into the Lake Washington Boulevard SE culvert removal project.

ii. **Yarrow Creek Stabilization –** The Yarrow Creek stabilization project includes the design for stabilization of that section of yarrow creek immediately upstream of the project site. The Utilities Department is working to design bank stabilization of a portion of stream bank that failed immediately downstream of a culvert that runs under 102nd Ave NE. The bank failure under repair as part of the yarrow Creek Stabilization project is considered the source of the sediment that caused the need for excavation that resulted in the stream restoration activity that is under review for retroactive permit as part of this staff report. This project is currently in design and is expected to begin in 2011.

II. Site Context

A. Critical Areas:

Yarrow Creek- This restoration project is located in Yarrow Creek. Yarrow Creek is designated as a Type “N” stream. Activities within a Type “N” stream

are restricted by the City of Bellevue Land Use Code Critical Areas Overlay District requirements. Bank stabilization projects and stream restoration projects are identified in the Land Use Code as allowed activities under section LUC 20.25H.055. As an allowed activity, this proposal must meet the performance standards outlined in LUC 20.25H.055.C.3.m and LUC 20.25H.080.A. These requirements are discussed in detail below.

III. State Environmental Policy Act (SEPA)

As an emergency action, the restoration work that is under review was completed prior to permit approval. This project was granted an emergency exemption under WAC 197-11-880 as needed to avoid an imminent threat to public health or safety, public or private property, or to prevent serious environmental degradation. SEPA was not processed on this action.

IV. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

This is a proposal for restoration of a tributary to Yarrow Creek by the City of Bellevue Utilities Department. Stream restoration projects are not subject to the use and dimensional provisions of the Land Use Code. No structures or new uses are proposed as part of this project.

B. Critical Areas Requirements:

The City of Bellevue Land Use Code (section 20.25H.055.B) lists allowed uses in Critical Areas. Stabilization Measures such as those to be implemented by this project are considered allowed activities within stream critical areas if the performance standards outlined in 20.25H.055.C.3.m can be met.

V. Consistency With Land Use Code Critical Areas Performance Standards:

A. Consistency With LUC 20.25H.055.C.3.m

m. Stabilization Measures. Proposed stabilization measures within a critical area or critical area buffer to protect against streambank erosion or steep slopes or landslide hazards may be approved in accordance with this subsection.

i. When Allowed. New or enlarged stabilization measures shall be allowed only to protect existing primary structures and infrastructure, or in connection with uses and development allowed pursuant to subsection B of this section. Stabilization measures shall be allowed only where avoidance measures are not technically feasible.

ii. Type of Stabilization Measure Used. Where a stabilization measure is allowed, soft stabilization measures shall be used, unless the applicant demonstrates that soft stabilization measures are not technically feasible. An applicant asserting that soft stabilization measures are not technically feasible shall provide the information relating to each of the factors set forth in subsection C.3.m.iii.(D) of this section for a determination of technical feasibility by the Director. Only after a determination that soft

stabilization measures are not technically feasible shall hard stabilization measures be permitted.

iii. Definitions.

(B) Soft Stabilization Measures. As used in this part, "soft stabilization measures" include : biotechnical measures, bank enhancement, anchor trees, gravel placement, stepped back rockeries, vegetative plantings and similar measures that use natural materials engineered to provide stabilization while mimicking or preserving the functions and values of the critical area.

(C) Avoidance Measures. As used in this part, "avoidance measures " refer to techniques used to minimize or prevent erosion or slope collapse that do not involve modification of the bank or slope. "Avoidance measures' include vegetation enhancement, upland drainage control, and protective walls or embankments placed outside of the critical area and critical area buffer.

(D) Technically Feasible. The determination of whether a technique or stabilization measure is "technically feasible" shall be made by the Director as part of the decision on the underlying permit after consideration of a report prepared by a qualified professional addressing the following factors:

(1) Site conditions, including topography and the location of the primary structure in relation to the critical area;

(2) The location of existing infrastructure necessary to support the proposed measure or technique;

(3) The level of risk to the primary structure or infrastructure presented by erosion or slope failure and ability of the proposed measure to mitigate that risk;

(4) Whether the cost of avoiding disturbance of the critical area or critical area buffer is substantially disproportionate as compared to the environmental impact of proposed disturbance, include any continued impacts on functions and values over time; and

(5) The ability of both permanent and temporary disturbance to be mitigated.

Consistency With Performance Standards: This restoration effort in Yarrow Creek consists entirely of "soft measures" and "avoidance measures". The soft measures include planting and placing logs to protect streambanks and create habitat. These are also "avoidance measures" included in the project design in that the project employs planting techniques to minimize and prevent erosion or slope collapse that do not involve modification of the bank or slope. The use of soft stabilization measures has been found to be technically feasible and the project does not include the use of more invasive bank armoring techniques such as the use of gabions or rockeries.

VI. Summary of Technical Reviews

A. Clearing and Grading:

The Clearing and Grading Division of the Development Services Department has reviewed the proposal for compliance with Clearing and Grading codes and standards. Authorization to proceed was granted by the Clearing and Grading Division as an emergency action. Work completed was inspected to comply with Clearing and Grading Code standards. Continued monitoring is required to ensure long term success of the restoration effort. See conditions of approval in section X below.

VII. Public Notice and Comment

Application Date:	January 28, 2009
Public Notice:	February 26, 2009
Minimum Comment Period:	March 12, 2009

The Notice of Application for this project was published in the City's Permit Bulletin on February 26, 2009. One comment was received on the project from Karen Walter of the Muckleshoot Indian Tribe Fisheries Division. All questions were replied to and resolved. Correspondence with Ms. Walter can be found as **Attachment 3** to this file.

VIII. Decision Criteria

The proposal, as conditioned below, meets the applicable regulations and decision criteria for a Critical Areas Land Use Permit pursuant to LUC Section 20.30P.

A. The proposal obtains all other permits required by the Land Use Code;

Finding: The applicant must submit application for and receive a retro-active Clearing and Grading permit for stream restoration. **See Conditions of Approval in Section X of this report.**

B. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;

Finding: This is a proposal to restore a section of stream that was impacted by inappropriate clearing and grading activity resulting from advanced accumulation of sediment on yarrow creek. The proposed stream restoration project is designed to be the least impacting to the surrounding landscape as possible. The proposal incorporates soft stabilization and avoidance measures designed to eliminate the requirement to perform more intensive clearing and grading activities (or fill). Work proposed includes the installation of woody debris anchored in place to stabilize the stream bed and prevent down-cutting of the channel. **See Conditions of Approval in Section X of this report.**

C. The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;

Finding: As discussed in Section V of this report, the proposal meets the performance standards of LUC Section 20.25H.055.C.3.m for stream stabilization measures and LUC Section 20.25H.080.A for general performance standards.

D. The proposal will be served by adequate public facilities including street, fire protection, and utilities; and ;

Finding: This is a proposal to stabilize a section of damaged stream. It does not require street, fire protection, or utilities services. The project will assist in the preservation of the sewer main that resides in the road prism of that portion of old Lake Washington Blvd that crosses Yarrow Creek.

E. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and

Finding: This is a proposal to restore a section of stream that was impacted by inappropriate clearing and grading activity resulting from advanced accumulation of sediment on Yarrow Creek. The proposed stream restoration project is designed to include plantings consistent with the City's Critical Areas Handbook. New plantings will be monitored for three years as outlined in LUC 20.25H.220.H. **See Conditions of Approval in Section X of this report regarding the required restoration plan.**

F. The proposal complies with other applicable requirements of this code.

Finding: As discussed in Section IV & V of this report, the proposal complies with all other applicable requirements of the Land Use Code.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency and City Code and Standard compliance reviews, the Director of Development Services does hereby **approve with conditions** the proposal to restore a section of stream that was impacted by inappropriate clearing and grading activity resulting from advanced accumulation of sediment on Yarrow Creek.

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a Clearing and Grading Permit or other necessary development permits within one year of the effective date of the approval.

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207
Land Use Code- BCC 20.25H	David Pyle, 425-452-2973
Noise Control- BCC 9.18	David Pyle, 425-452-2973

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

1. **Clearing and Grading Permit:** The applicant must apply for and obtain a retroactive Clearing and Grading Permit. Final project sign off must be obtained by the City's Clearing and Grading Supervisor.

Authority: Bellevue City Code Section 23.76.025
Reviewer: David Pyle, Development Services Department

2. **Site Restoration:** A retroactive restoration and replanting plan for all areas to be restored that meets the requirements of LUC 20.25H.220.H and that is consistent with the City's Critical Areas Handbook shall be submitted and approved prior to the issuance of any clearing and grading permits for stabilization and restoration activity on this site.

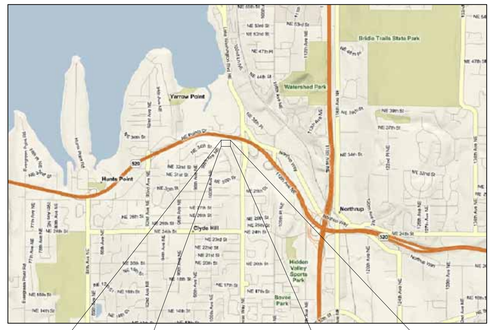
Authority: Land Use Code Section 20.25H.220
Reviewer: David Pyle, Development Services Department

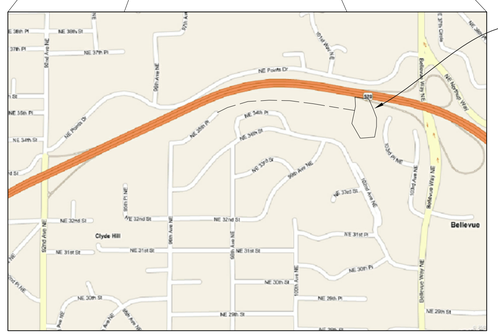
3. **Monitoring Required:** The applicant must submit as part of the required Clearing and Grading Permit application a monitoring plan that identifies how all areas that have been planted will be monitored for a period of three years following installation.

Authority: Land Use Code Section 20.25H.220.H
Reviewer: David Pyle, Planning and Community Development Department

XI. Attachments:

1. Restoration Plan – In File
2. Emergency HPA – In File
3. Public Comment and Response – In File





APPROXIMATE PROJECT AREA

VICINITY MAPS

GENERAL INFORMATION:

CITY CONTACT: PETE BLANE, SENIOR ENGINEERING TECHNICIAN
CITY OF BELLEVUE
UTILITIES DEPARTMENT
OPERATIONS & MAINTENANCE DIVISION
2901 115TH AVE NE BELLEVUE, WA 98004

ENVIRONMENTAL CONSULTANT: THE WATERSHED COMPANY
750 6TH ST S
KIRKLAND, WASHINGTON 98033
(425) 822-5242
CONTACT: GREG JOHNSTON
SENIOR FISHERIES BIOLOGIST

SITE DATA:

KC PARCEL NO.: 2025059171
PARCEL AREA: 26,220 SF
SITE ADDRESS: NE 35TH PL, FOLLOW UTILITY ROAD TO THE END
OWNER: STATE OF WASHINGTON, DEPT. OF TRANSPORTATION

SHEET INDEX

1 EXISTING CONDITIONS
2 SITE PLAN & MONITORING & MAINTENANCE NOTES
3 STREAM CHANNEL CROSS SECTIONS & CONSTURCTION NOTES
4 REVEGETATION PLAN
5 PLANTING SPECIFICATIONS & DETAILS

LEGEND

STREAM FLOW LINE

EXISTING VEGETATION LINE

* EXISTING TREES

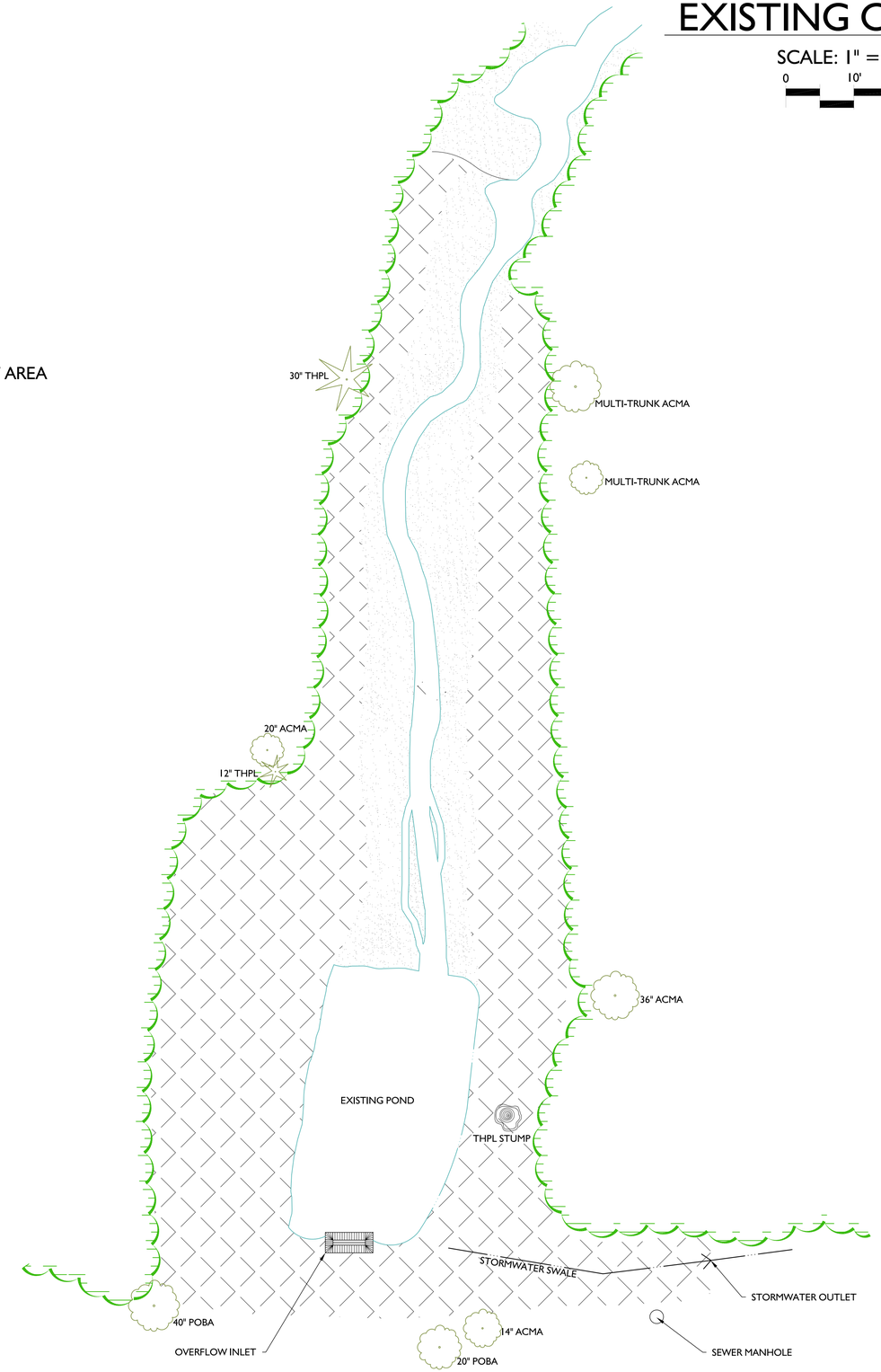
CLEARED AREA (TO BE REVEGETATED)

* TREE KEY:
ACMA = ACER MACROPHYLUM / BIG LEAF MAPLE
POBA = POPULUS BALSMIFERA ssp. TRICHOCARPA / BLACK COTTONWOOD
THPL = THUJA PLICATA / WESTERN RED CEDAR

NOTE: FEATURES DEPICTED HAVE NOT BEEN SURVEYED. THEY ARE DERIVED FROM IN-FIELD MEASUREMENT AND ARE APPROXIMATE ONLY.

EXISTING CONDITIONS

SCALE: 1" = 10'-0" (AT FULL SIZE)
0 10' 20' 40'



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Science & Design

YARROW CREEK TRIBUTARY
LOG PLACEMENT & REVEGETATION PLAN
PREPARED FOR: PETE BLANE
CITY OF BELLEVUE UTILITIES DIVISION
2901 115TH AVE NE
BELLEVUE, WA 98004

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	10-10-08	REVIEW SET	ZS
2	10-30-08	PERMIT SET	ZS
3	11-05-08	REVISION PER CITY/WDFW	ZS

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34" .
SCALE ACCORDINGLY.

PROJECT MANAGER: GJ
DESIGNED: GJ/ZS
DRAFTED: ZS
CHECKED: GJ
JOB NUMBER: 080914
SHEET NUMBER: 1 OF 5

DATE 11/5/2008 | PRINTED BY ZACK SMITH | FILENAME 080914-YARROW-TRIB RESTORATION.DWG

Stream Channel Restoration:
Yarrow Creek Tributary

Monitoring and Maintenance

Performance Standards

The following objectives and performance standards have been established to measure the success of this plan. The following standards need to be satisfied for the mitigation area to be a success:

Objective 1: Native sapling, shrub, and/or groundcover vegetation communities will be planted in the enhancement area as soon as practical after construction and established within five years after planting.
Performance Standard: Within the planting areas, all woody plantings (trees and shrubs) will have 100% survival at the end of Year 1, 60% cover by Year 3, and 85% cover by Year 5, with additional planting provided if these standards are not met. Native volunteer species can be included in overall percent cover calculations.
Performance Standard: Weedy cover by Himalayan and evergreen blackberry, reed canarygrass, Scot's broom, English ivy, morning glory, birds-foot trefoil, Japanese knotweed, or any other species listed by the Washington State Noxious Weed Board as Class A, Class B, or Class C weeds may not exceed 10%.

Objective 2: The in-stream woody debris shall remain distributed throughout the project area (as opposed to becoming grouped at the lower end). Normal desirable and expected changes in substrate are expected and include the formation of scour pools, riffles and gravel tail outs in the vicinity of each structure. Undue sideslope scour shall not occur. The trash rack at the inlet of the culvert under the maintenance road shall be kept clean to the extent that excessive ponding does not occur.
Performance Standard: For five years after enhancement plan implementation, all of the woody debris shall remain in the vicinity of where it was placed as specified on the enhancement plan, and any channel migration will remain within the established floodplain area.

Sampling Protocol

Monitoring of the site shall be conducted by a biologist from The Watershed Company [Phone: (425) 822-5242] or other qualified persons familiar with these plans.

As-Built Plan/Report
Prior to the first monitoring visit, during the first spring following implementation of the mitigation plan, an As-Built Plan/Report will be prepared that documents the general implementation of the mitigation plans. During the As-Built assessment, two 50-foot-long transects will be placed in the field, with endpoints marked by flagged metal T-posts. For each transect, a count by species of installed plantings within 5 feet of each side of the transect will be recorded.

The As-Built Plan will note the locations of transects, and note the location of fixed photo points. Photo points will be established along each transect, and as needed to provide an overview of the entire project area

The As-Built Report will include a table that lists the number of plants by species within each transect. This table will comprise the baseline for future monitoring efforts. The As-Built Report will also provide copies of all contractor receipts for plant purchases to demonstrate consistency with the approved Mitigation Plan plant numbers. Any minor changes to the approved revegetation plan that are required by plant availability or field conditions present during plan implementation will be documented in the As-Built Plan/Report and submitted to the City of Bellevue for approval. The monitoring period begins once the As-Built Plan/Report has been approved by the City. The approved As-Built Plan/Report then becomes the approved Mitigation Plan for future inspection purposes.

Annual Monitoring
Vegetation monitoring shall take place once each year, for five years. Vegetation monitoring visits shall occur between July 15 and September 15. The following will be recorded and reported in an annual monitoring report (due to the City of Bellevue by October 31 each year):
1) Percent cover for native shrubs and saplings using the line-intercept method on transects established during the As-Built site visit for (native "volunteers" will be credited toward the required native plant cover).
2) Percent cover of groundcovers by visual cover class estimates along the transects.
3) Counts by species of native plants along each transect. A complete count of dead stems by species in the enhancement area will also be conducted in Year 1 (only) for the purpose of establishing plant installer's obligation to guarantee 100% survival of plants for the first year. The Year 1 percent survival will be calculated from these data.
4) Percent cover by non-native species using the line-intercept method along transects and a visual estimate of the entire project area.
5) Visual assessment of entire project area for general survival and health of planted species.
6) Photographic documentation taken from a minimum of three fixed reference points established and mapped during the As-Built site visit.
7) Intrusions into the planting areas, vandalism or other actions that impair the intended functions of the mitigation area.
8) Recommendations for maintenance or repair.

The stream channel and log structures shall also be assessed annually for five years in the spring or early summer to evaluate project consistency with Objective 2 above. Specifically, depth and prevalence of pools formed and maintained, substrate and riffle characteristics, bank condition, and large woody debris position and condition will be noted.

Maintenance

The site will be maintained annually for five years following completion of the construction:
1) Visit site daily during heavy rains, weekly during the rainy season and monthly during the dry season. Visits during the dry season are to inspect for debris and sediment as well as other changes or repairs needed. Sediment removal will be needed if sediment from the stream channel rises above the inlet to the trash rack. Removal of sediment will be needed when accumulation at the inlet rise to the point where the trash rack will plug if not removed.
2) Replace every plant found dead in Year One (only).
3) Remove weeds and weed roots from beneath each installed plant to a distance of 12 inches from the main plant stem, or to the dripline, whichever is greater.
4) Remove all invasive plants (e.g., Himalayan and evergreen blackberry, reed canarygrass, Scot's broom, English ivy, morning glory, birds-foot trefoil, Japanese knotweed, or any other species listed by the Washington State Noxious Weed Board as Class A, Class B, or Class C) from the revegetated areas. Weeding shall take place at least twice each year (in May and in late June/early July prior to each year's monitoring visit) for five years following installation. More frequent weeding may be necessary based on findings of the monitoring reports. Weeding is to be done using hand tools to remove weed plants and weed roots.
5) Supply a minimum of 2 inches of water per week from June 1 through September 30 for at least the first two years following installation.
6) Mulch the weeded areas beneath each plant with wood chip mulch as necessary to maintain a 4-inch thick mulch ring.
7) Complete any other items identified in the annual monitoring reports (such as dead plant replacement, streambed substrate amendment, wood location, trash removal and trash rack maintenance, sensitive area sign or fence maintenance, etc).

Contigency & Management Plans

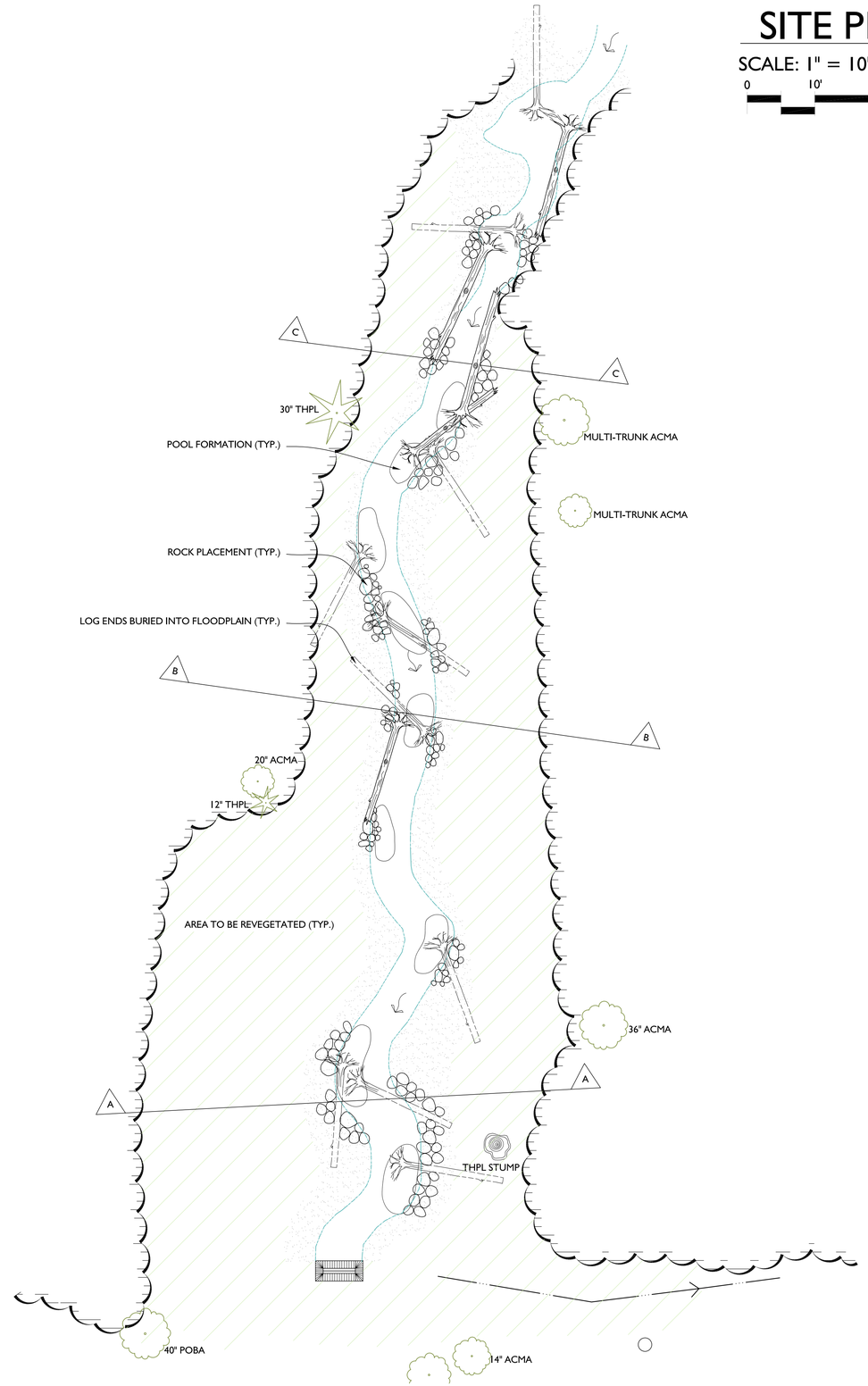
In the event that the implemented restoration plan does not meet the performance standards provided above, the consulting biologist would evaluate reasons for plant or log structure failure (e.g., poor installation, plant not suitable for site conditions, inadequate hydrology, animal damage, erosion and channel migration). Potential solutions to rectify poor performance include re-planting, additional watering, species substitutions, increasing plant density, providing protection to prevent animal damage, and repositioning of any logs which have moved such a manner as to threaten bank stability or clog the culvert inlet.

NOTE: SITE PLAN IS SCHEMATIC. ADJUSTMENTS MAY BE NECESSARY & ARE TO BE EXPECTED. VERIFY IN FIELD WITH STREAM RESTORATION SPECIALIST.

SITE PLAN

SCALE: 1" = 10'-0" (AT FULL SIZE)

0 10' 20' 40'



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BELLEVUE, WA 98004

SUBMITTALS & REVISIONS

NO.	DATE	DESCRIPTION	BY
1	10-10-08	REVIEW SET	ZS
2	10-30-08	PERMIT SET	ZS
3	11-05-08	REVISION PER CITY/WDFW	ZS

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34" .
SCALE ACCORDINGLY.

PROJECT MANAGER: GJ
DESIGNED: GJ/ZS
DRAFTED: ZS
CHECKED: GJ
JOB NUMBER:
080914
SHEET NUMBER:
2 OF 5

DATE 11/5/2008 | PRINTED BY ZACK SMITH | FILENAME 080914-YARROW-TRIB.RESTORATION.DWG

Stream Channel Restoration:
Yarrow Creek Tributary

Construction Sequencing:

A. Remove existing coir or similar fabric from the channel/ravine sideslopes and store for later use. Install any standard and/or required temporary erosion and sedimentation control measures (TESC).

B. Divert stream flow around the channel restoration work area by:
   1. placing a sheet plastic and sand bag dam at the outlet of the existing "sump" pool at the upstream end of the disturbed area;
   2. incorporating a flexible, min 12"dia. plastic pipe into the dam;
   3. aligning the pipe along the sideslopes of the work area for discharge into the existing concrete head box at the inlet of the culvert under the access road.

The flexible bypass pipe may be moved around as needed to accommodate channel reconstruction activities.

C. Pump the large pool at the culvert inlet down. Maintain a sump at the culvert inlet and keep the pool pumped down during channel reconstruction activities. Clean water may be discharged to the culvert; noticeably turbid water is to be discharged to upland locations for infiltration and biofiltration (provided it does not cause erosion), otherwise treated on-site before discharge (as in a Baker tank), or exported from the site.

D. Place pit-run Gravel fill, Log structures, and Rounded Boulders (see specifications) to re-form the stream channel as follows:

SEE SECTIONS

1. Rough-grade (fill) using the specified "pit-run" Gravel material to the sub-grade (low-flow riffle) elevation, as shown in the accompanying cross sections, A-C. 20% - 30% sound, large woody materials, i.e. stumps and logs, are to be included in this fill material to increase stability. These materials may be either partially or fully buried. Most native tree species are acceptable, with the exclusion of alder and hemlock; non-hemlock conifers are preferred.
2. Place Log structures and Rounded Boulders as shown in the plan view, excavating pool depressions at least 1 foot deep corresponding to locations where logs extend into or cross the low-flow channel, particularly at root wad locations. Pools at root wad locations are to be excavated sufficiently deep such that they do not "prop up" the log they are attached to. (Fill may be withheld in Step 1 at pool locations, where they can be anticipated, to assist in pool formation.)
3. Place additional fill, incorporating the placed rock and logs, to form the low flow channel and flood plain. Log ends extending into the bank or flood plain are to be fully buried.
4. Incorporate a 3-way topsoil mix into pit-run fill and locate onto the side slopes above the floodplain materials to support the revegetation plan, achieving a side slope of roughly 3:1 (See sections). Upon reaching grade, re-apply stockpiled coir-fabric atop banks to prevent erosion.

E. Upon approval of the work by involved stakeholders and regulators (Bellevue Utilities and/or designated representative, Bellevue Planning, Washington Department of Fish and Wildlife, and possibly others), re-place and secure the coir or similar fabric saved in step A, above, along the sideslope areas where soil is exposed. Remove the flow bypass dam and pipe, allowing water to flow through the reconstructed channel.

F. During the first dormant season (November through March), implement the bank soils amendment and native planting plan.

G. Remove any remaining TESC features, such as silt fencing, at the onset of the first growing season.

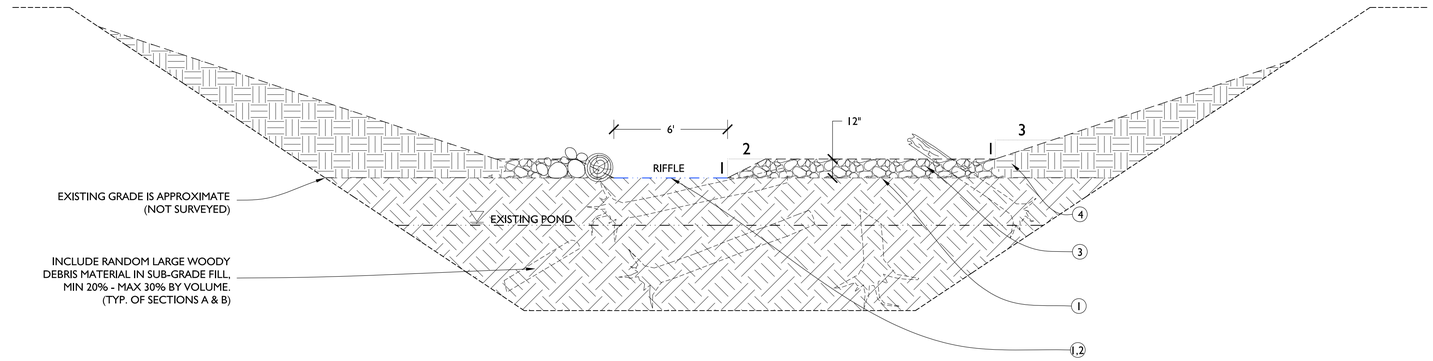
Stream Channel Material Specifications:

1. Logs as specified for this project are to be native species, excluding alder and hemlock, a minimum of 16 feet long and 12 inches in diameter 16 feet from the root end, at least 70% of which are non-hemlock conifers. All are specified with their root wads attached, and attached limbs and/or multiple trunks are allowed and encouraged. Acceptable species include western red cedar, Douglas-fir, bigleaf maple, Oregon ash, madrona, shore pine, and others as approved by the owner or the owner's designated representative.
2. Gravel fill material used to reform the channel is to be sandy, silty, gravelly, cobbly "pit run" material resembling the following mix:

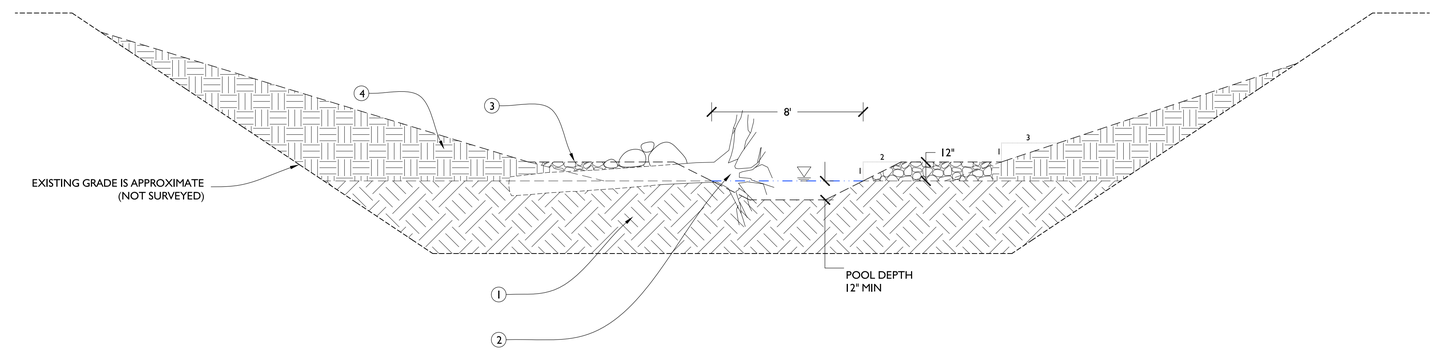
Silt	5%
Sand	10%
Pea Gravel	10%
Small Gravel ¾" to 3"	30%
Large "Gravel" 3-6"	25%
Cobble 6-10"	20%

3. Rounded Boulders are to be 12-18" in diameter along the median axis and are to be placed as shown on the plan view and details along the streambanks, primarily at log ends and between logs and the streambank.

NOTE: FOR ALL SECTIONS, CIRCLED NUMBERS CORRESPOND TO CONSTRUCTION SEQUENCING. SEE SIDEBAR NOTES, THIS SHEET.



A SECTION A
NTS



B SECTION B
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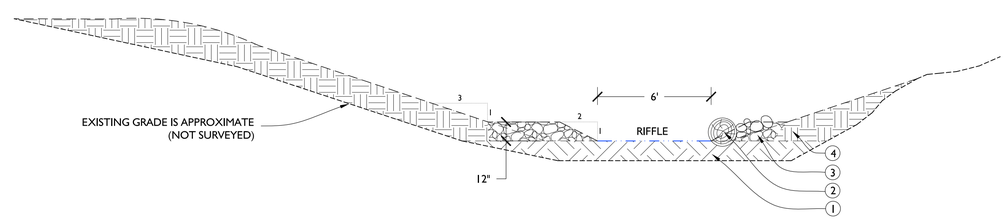

C SECTION C
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NOTE: SECTIONS ARE SCHEMATIC ONLY. ADJUSTMENTS MAY BE NECESSARY & ARE TO BE EXPECTED. VERIFY IN FIELD WITH STREAM RESTORATION SPECIALIST.

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Science & Design

YARROW CREEK TRIBUTARY
LOG PLACEMENT & REVEGETATION PLAN
PREPARED FOR: PETE BLANE
CITY OF BELLEVUE UTILITIES DIVISION
2901 115TH AVE NE
BELLEVUE, WA 98004

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PLANTING LEGEND

	SCIENTIFIC / COMMON NAME	QTY.	SIZE
	TREES - ALL TREES FULL & BUSHY		
PM	PSUEDOTSUGA MENZEISII DOUGALS-FIR	5	2 GAL
TH	THUJA PLICATA WESTERN RED CEDAR	5	2 GAL
TP	TSUGA HETEROPHYLLA WESTERN HEMLOCK	5	2 GAL
	SHRUBS - ALL SHRUBS TO BE HEALTHY & VIGOROUS		
AC	ACER CIRCINATUM VINE MAPLE	15	1 GAL
cs	CORNUS SERICEA REDTWIG DOGWOOD	28	1 GAL
CC	CORYLUS CORNUTA BEAKED HAZELNUT	9	1 GAL
hd	HOLODISCUS DISCOLOR OCEANSPRAY	6	1 GAL
oc	OEMLARIA CERASIFORMIS INDIAN PLUM	14	1 GAL
rb	RIBES BRACTEOSUM STINK CURRANT	12	1 GAL
sr	SAMBUCUS RACEMOSA RED ELDERBERRY	18	1 GAL
sa	SYMPHORICARPOS ALBUS SNOWBERRY	34	1 GAL
	FERNS		
a	ATHYRIUM FILIX FEMINA LADY FERN	52	1 GAL
p	POLYSTICHUM MUNITUM SWORD FERN	62	1 GAL
	LIVE STAKES		
●	SALIX LUCIDA ssp LASIANDRA PACIFIC WILLOW	35	LIVE STAKE (3' - 5' IN LENGTH)

PLANTING NOTES

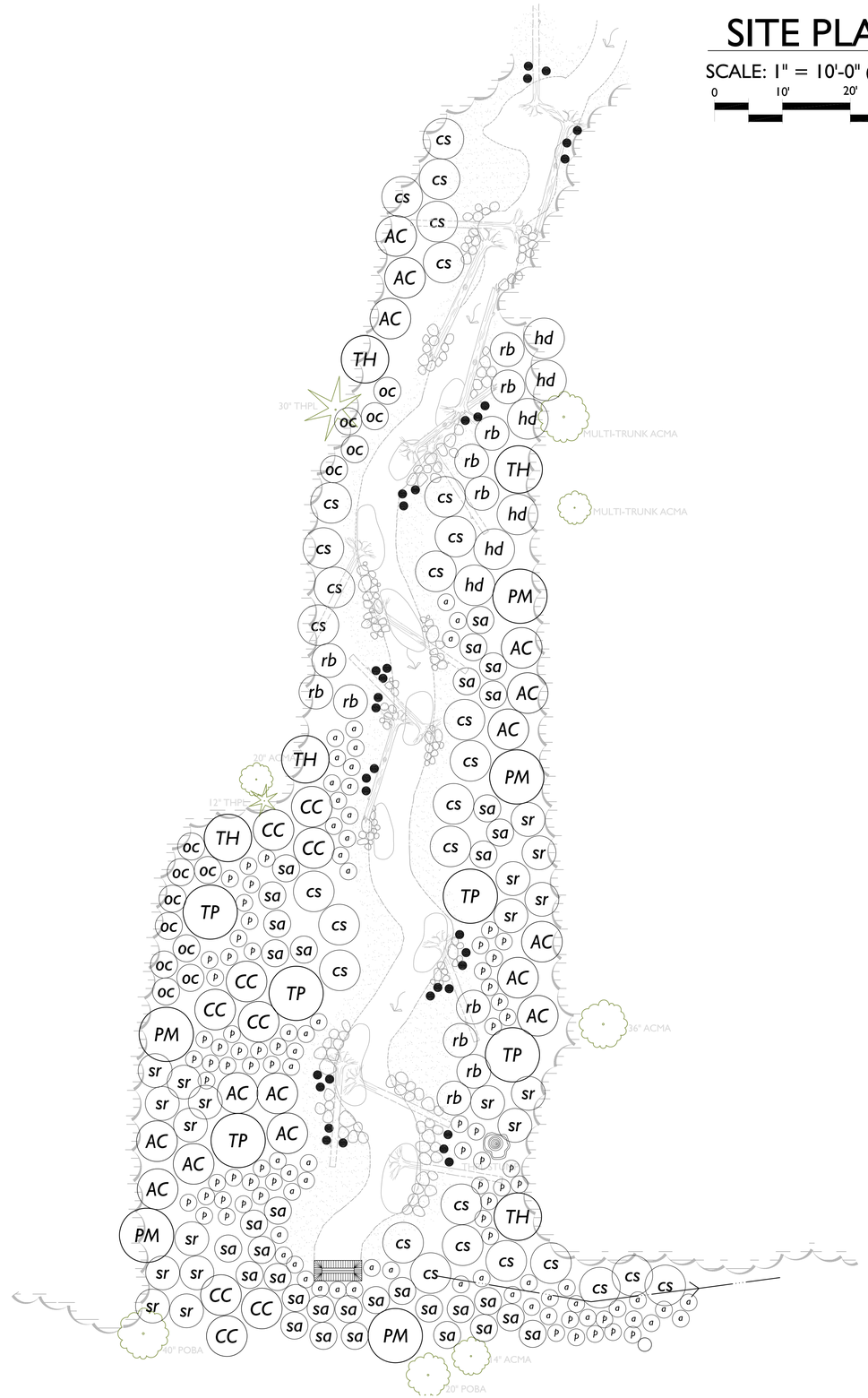
1. Native plant installation shall occur between October 15th and December 15th during frost-free periods only.
2. Before final grading is completed by the grading contractor, the landscape contractor should inspect the site to insure that soils, surface and grades are suitable for planting. At that time, assess soil conditions and if necessary provide amendment in planting areas such that there is a minimum of 20% organic material.
3. Remove any and all invasive weeds and their roots from the planting area. Species targeted for removal include Himalayan blackberry, English holly, English ivy, Scot's broom, Japanese knotweed, English laurel, and morning glory.
4. Locate all existing utilities within the limit of work. The contractor is responsible for any utility damage as a result of the landscape construction.
5. Cut holes into coir fabric 3X the size of the rootball to be planted.
6. Remove any large rocks or debris within planting pits and scarify the walls of the pit.
7. Layout plant material per plan for inspection by the Landscape Architect. Plant substitutions will NOT be allowed without the approval of the Landscape Architect.
8. Install plants per planting details.
9. Water each plant thoroughly to remove air pockets.
10. Install a 4" deep, coarse wood chip mulch throughout the planting area, atop the coir fabric. Pull mulch away from stems/trunks of plants to prevent rotting.
11. One year after initial plant installation, apply organic, slow-release fertilizer such as Osmocote or Perfect Blend 4-4-4 to each plant.

The landscape contractor shall maintain all plant material until final inspection and approval by the Owner or Owner's representative. All plantings and workmanship shall be guaranteed for one year following final owner acceptance

SITE PLAN

SCALE: 1" = 10'-0" (AT FULL SIZE)

0 10' 20' 40'



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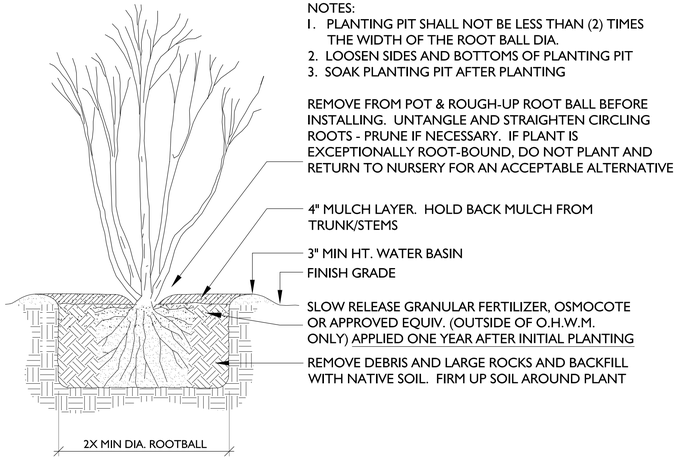
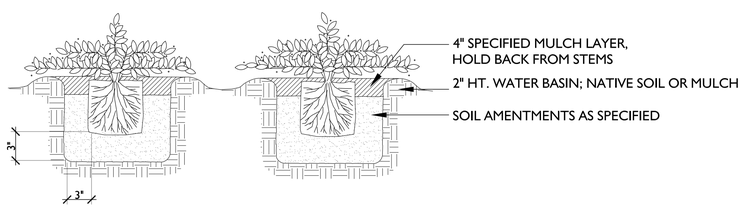


A TREE & SHRUB PLANTING DETAIL

NTS

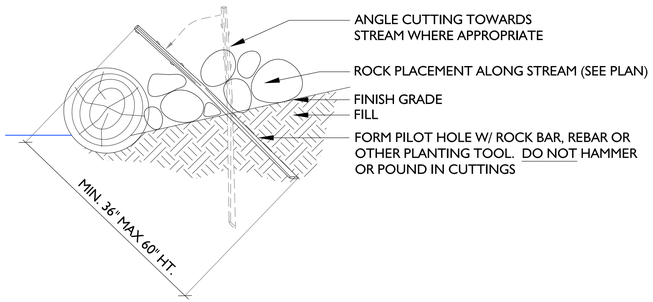
NOTES:
1. PLANT GROUNDCOVER AT SPECIFIED DISTANCE ON-CENTER (O.C.) USING TRIANGULAR SPACING, TYP.
2. LOOSEN SIDES AND BOTTOM OF PLANTING PIT AND REMOVE DEBRIS
3. LOOSEN ROOTBOUND PLANTS BEFORE INSTALLING
4. SOAK PIT BEFORE AND AFTER INSTALLING PLANT



B GROUNDCOVER & PERENNIAL PLANTING DETAIL

NTS

NOTES:
1. CUTTING SHOULD BE ANGLE CUT (45°) AT THE BASE AND PERPENDICULAR CUT JUST ABOVE A NODE (BUD)
2. INSTALL CUTTING A MIN. OF 1/2 WAY INTO SOIL
3. ENSURE THAT NODES (BUDS) ARE POINTING UP
4. WHERE GROUPED WITHIN LARGER ROCKS, REMOVE ROCKS, FORM PILOT HOLE AND GENTLY REPLACE ROCKS AROUND STAKE AFTER INSTALLATION.
5. ENSURE STAKE IS DEEP ENOUGH TO REACH FILL LAYER.
6. WATER CUTTINGS AFTER PLANTING



C LIVE STAKE PLANTING DETAIL

NTS

PLANT INSTALLATION SPECIFICATIONS

NOTE: THESE SPECIFICATIONS ARE A LEGALLY BINDING CONTRACT

GENERAL NOTES

QUALITY ASSURANCE
1. PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
2. PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
3. TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUNSCALD WILL BE REJECTED.

DEFINITIONS
1. PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC.; SPRIGS, PLUGS, AND LINERS.
2. CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
2. SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE LANDSCAPE ARCHITECT / CONSULTANT.
3. IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
4. SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION
1. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.
2. PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
3. THE CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENTS OF PLANTS
1. PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
2. HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
3. WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.)

SUBMITTALS

PROPOSED PLANT SOURCES
1. WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES
1. PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
2. HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION
CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS
1. TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE ENSURED.
2. SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
3. HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
4. LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY
PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT
1. PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONSULTANT'S DISCRETION.
2. PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

GENERAL
1. PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES
SEE PLANT LIST ON ACCOMPANYING PLANS.

ROOT TREATMENT
1. CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
2. PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
3. ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.

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Washington Department of FISH and WILDLIFE

HYDRAULIC PROJECT APPROVAL

RCW 77.55.021(10) & (11) - Appeal Pursuant to Chapter

North Puget Sound
16018 Mill Creek Boulevard
Mill Creek, WA 98012-1296
(425) 775-1311

Issue Date: November 10, 2008
Project Expiration Date: January 08, 2009

Control Number: 115201-1
FPA/Public Notice #: N/A

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Bellevue City of Utilities Dept. O & M ATTENTION: Peter Blane 2901 115th Ave. NE Bellevue, WA 98004 425-452-6450	

Project Name: Yarrow Creek Stream Restoration

Project Description: Restore section of creek disturbed by unpermitted dredging; location is at end of utility access road south of SR 520 accessed eas of north end of 96th Ave. NE

PROVISIONS

1. Stream restoration work, including installation of the approved revegetation plan (Provision 2), may begin immediately and shall be completed by January 8, 2009.

2. Work shall be accomplished per plans and specifications approved by the Washington Department of Fish and Wildlife (WDFW) entitled, "YARROW CREEK TRIBUTARY LOG PLACEMENT & REVEGETATION PLAN", dated last revised November 5, 2008, except as modified by this Hydraulic Project Approval (HPA). A copy of these plans shall be available on site during construction.

3. NOTIFICATION REQUIREMENT: The Area Habitat Biologist (AHB) listed below (e-mail to fisheldf@dfw.wa.gov) and the Enforcement Program Officer (e-mail to steveles@dfw.wa.gov) shall receive e-mail notification from the person to whom this HPA is issued (permittee) no less than three working days prior to start of work, and again within seven days of completion of work to arrange a compliance inspection. The notification shall include the permittee's name, project location, starting date of work or completion date of work, and the control number of this HPA.

4. A temporary bypass to divert flow around the work area shall be in place prior to initiation of other work in the wetted perimeter.

5. A sandbag revetment or similar device shall be installed at the bypass inlet to divert the entire flow through the bypass.

6. A sandbag revetment or similar device shall be installed at the downstream end of the bypass to prevent backwater from entering the work area.

7. The bypass shall be of sufficient size to pass all flows and debris for the duration of the project.

Washington
Department of
FISH and
WILDLIFE

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8. Prior to releasing the water flow to the project area, all instream work shall be completed.

9. Upon completion of the project, all material used in the temporary bypass shall be removed from the site and the site returned to preproject or improved conditions.

10. Fish habitat components such as logs, stumps, and/or large boulders are required as part of the project to mitigate the impacts of prior unpermitted dredging. All large woody material used shall be native coniferous species, such as western red cedar and Douglas fir. These fish habitat components shall be installed to withstand 100-year peak flows.

11. Equipment used for this project shall operate stationed on the bank shall be free of external petroleum-based products while working around the stream and wetlands associated with the stream. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to its working below the ordinary high water line. Equipment shall be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream and wetlands associated with the stream.

12. If at any time, as a result of project activities, fish are observed in distress, a fish kill occurs, or water quality problems develop (including equipment leaks or spills), immediate notification shall be made to the Washington Emergency Management Division at 1-800-258-5990, and to the AHB.

13. Erosion control methods shall be used to prevent silt-laden water from entering the stream. These may include, but are not limited to, straw bales, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas.

14. Prior to starting work, the selected erosion control methods (Provision 13) shall be installed. Accumulated sediments shall be removed during the project and prior to removing the erosion control methods after completion of work.

15. All waste material such as construction debris, silt, excess dirt or overburden resulting from this project shall be deposited above the limits of floodwater in an approved upland disposal site.

16. Extreme care shall be taken to ensure that no petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the stream.

Washington Department of FISH and WILDLIFE

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Mill Creek, WA 98012-1296
(425) 775-1311

Issue Date: November 10, 2008
Project Expiration Date: January 08, 2009

Control Number: 115201-1
FPA/Public Notice #: N/A

PROJECT LOCATIONS

Location #1 end of utility road

WORK START: November 10, 2008					WORK END: January 08, 2009	
WRIA: 08.0252	Waterbody: Yarrow Creek				Tributary to: Lake Washington	
1/4 SEC: NW 1/4	Section: 20	Township: 25 N	Range: 05 E	Latitude: N 47.64208	Longitude: W 122.20416	County: King
Location #1 Driving Directions						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW (formerly RCW 77.20). Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in a civil penalty of up to one hundred dollars per day and/or a gross misdemeanor charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued pursuant to RCW 77.55.021 (EXCEPT agricultural irrigation, stock watering or bank stabilization projects) or 77.55.141 are subject to additional restrictions, conditions or revocation if the Department of Fish and Wildlife determines that new biological or physical information indicates the need for such action. The person(s) to whom this Hydraulic Project Approval is issued has the right pursuant to Chapter 34.04 RCW to appeal such decisions. All agricultural irrigation, stock watering or bank stabilization Hydraulic Project Approvals issued pursuant to RCW 77.55.021 may be modified by the Department of Fish and Wildlife due to changed conditions after consultation with the person(s) to whom this Hydraulic Project Approval is issued: PROVIDED HOWEVER, that such modifications shall be subject to appeal to the Hydraulic Appeals Board established in RCW 77.55.301.

APPEALS INFORMATION

If you wish to appeal the issuance or denial of, or conditions provided in a Hydraulic Project Approval, there are informal and formal appeal processes available.

Washington
Department of
FISH and
WILDLIFE

HYDRAULIC PROJECT APPROVAL

RCW 77.55.021(10) & (11) - Appeal Pursuant to Chapter

North Puget Sound
16018 Mill Creek Boulevard
Mill Creek, WA 98012-1296
(425) 775-1311

Issue Date: November 10, 2008 | Control Number: 115201-1

Project Expiration Date: January 08, 2009 | FPA/Public Notice #: N/A

A. INFORMAL APPEALS (WAC 220-110-340) OF DEPARTMENT ACTIONS TAKEN PURSUANT TO RCW 77.55.021, 77.55.141, 77.55.181, and 77.55.291: A person who is aggrieved or adversely affected by the following Department actions may request an informal review of:

(A) The denial or issuance of a Hydraulic Project Approval, or the conditions or provisions made part of a Hydraulic Project Approval; or

(B) An order imposing civil penalties. A request for an INFORMAL REVIEW shall be in WRITING to the Department of Fish and Wildlife HPA Appeals Coordinator, 600 Capitol Way North, Olympia, Washington 98501-1091 and shall be RECEIVED by the Department within 30 days of the denial or issuance of a Hydraulic Project Approval or receipt of an order imposing civil penalties. If agreed to by the aggrieved party, and the aggrieved party is the Hydraulic Project Approval applicant, resolution of the concerns will be facilitated through discussions with the Area Habitat Biologist and his/her supervisor. If resolution is not reached, or the aggrieved party is not the Hydraulic Project Approval applicant, the Habitat Technical Services Division Manager or his/her designee shall conduct a review and recommend a decision to the Director or his/her designee. If you are not satisfied with the results of this informal appeal, a formal appeal may be filed.

B. FORMAL APPEALS (WAC 220-110-350) OF DEPARTMENT ACTIONS TAKEN PURSUANT TO RCW 77.55.021 (EXCEPT agricultural irrigation, stock watering or bank stabilization projects) or 77.55.291:
A person who is aggrieved or adversely affected by the following Department actions may request a formal review of:

(A) The denial or issuance of a Hydraulic Project Approval, or the conditions or provisions made part of a Hydraulic Project Approval;

(B) An order imposing civil penalties; or

(C) Any other 'agency action' for which an adjudicative proceeding is required under the Administrative Procedure Act, Chapter 34.05 RCW.

A request for a FORMAL APPEAL shall be in WRITING to the Department of Fish and Wildlife HPA Appeals Coordinator, shall be plainly labeled as 'REQUEST FOR FORMAL APPEAL' and shall be RECEIVED DURING OFFICE HOURS by the Department at 600 Capitol Way North, Olympia, Washington 98501-1091, within 30-days of the Department action that is being challenged. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, the deadline for requesting a formal appeal shall be within 30-days of the date of the Department's written decision in response to the informal appeal.

C. FORMAL APPEALS OF DEPARTMENT ACTIONS TAKEN PURSUANT TO RCW 77.55.021 (agricultural irrigation, stock watering or bank stabilization only), 77.55.141, 77.55.181, or 77.55.241: A person who is aggrieved or adversely affected by the denial or issuance of a Hydraulic Project Approval, or the conditions or provisions made part of a Hydraulic Project Approval may request a formal appeal. The request for FORMAL APPEAL shall be in WRITING to the Hydraulic Appeals Board per WAC 259-04 at Environmental Hearings Office, 4224 Sixth Avenue SE, Building Two - Rowe Six, Lacey, Washington 98504; telephone 360/459-6327.

D. FORMAL APPEALS OF DEPARTMENT ACTIONS TAKEN PURSUANT TO CHAPTER 43.21L RCW: A person who is aggrieved or adversely affected by the denial or issuance of a Hydraulic Project Approval, or the conditions or provisions made part of a Hydraulic Project Approval may request a formal appeal. The FORMAL APPEAL shall be in accordance with the provisions of Chapter 43.21L RCW and Chapter 199-08 WAC. The request for FORMAL APPEAL shall be in WRITING to the Environmental and Land Use Hearings Board at Environmental Hearings Office, Environmental and Land Use Hearings Board, 4224 Sixth Avenue SE, Building Two - Rowe Six, P.O. Box 40903, Lacey, Washington 98504; telephone 360/459-6327.

E. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS results in forfeiture of all appeal rights. If there is no timely request for an appeal, the department action shall be final and unappealable.

Washington
Department of
FISH and
WILDLIFE

HYDRAULIC PROJECT APPROVAL

RCW 77.55.021(10) & (11) - Appeal Pursuant to Chapter

North Puget Sound
16018 Mill Creek Boulevard
Mill Creek, WA 98012-1296
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Issue Date: November 10, 2008

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Control Number: 115201-1

FPA/Public Notice #: N/A

ENFORCEMENT: Sergeant Chandler (34) P2E

Habitat Biologist Larry Fisher	425-313-5683	Larry Fisher	for Director WDFW

CC:

Pyle, David

From: Karen Walter [KWalter@muckleshoot.nsn.us]
Sent: Thursday, March 05, 2009 10:14 AM
To: Pyle, David
Subject: Yarrow Creek Restoration, 09-104532-LO, Notice of Application

David,

The Muckleshoot Indian Tribe Fisheries Division received notice that the City is planning to conduct work to correct the damage caused by the City's Utilities to Yarrow Creek. We would like to get additional information about this propose work including site plans and any technical reports or analyses or other documents submitted with the application packet that describe the work that was completed and the proposed restoration to correct the damage. With this information, we will determine if we have any comments about the proposed restoration work.

We appreciate your assistance in obtaining the available information requested above. Please let me know if you have any questions.

Thank you,

Karen Walter

Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division

39015 172nd Ave SE

Auburn, WA 98092

Pyle, David

From: Pyle, David
Sent: Thursday, March 05, 2009 10:18 AM
To: Karen Walter
Subject: RE: Yarrow Creek Restoration, 09-104532-LO, Notice of Application

Karen-

Please note that this information is available electronically as a link to the City's Permit Bulletin at http://www.ci.bellevue.wa.us/pdf/Land%20Use/2-26-09_WeeklyPermitBulletin.pdf .

Thanks,

David Pyle

From: Karen Walter [KWalter@muckleshoot.nsn.us]
Sent: Thursday, March 05, 2009 10:14 AM
To: Pyle, David
Subject: Yarrow Creek Restoration, 09-104532-LO, Notice of Application

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Thank you,

Karen Walter

Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division

39015 172nd Ave SE

Auburn, WA 98092

Pyle, David

From: Karen Walter [KWalter@muckleshoot.nsn.us]
Sent: Thursday, March 05, 2009 10:24 AM
To: Pyle, David
Subject: RE: Yarrow Creek Restoration, 09-104532-LO, Notice of Application

Thanks! Previous postings to the weekly permit bulletin were usually it is just a one pager or sometimes the checklist. It helps having the available information posted electronically. We'll let you know if we have any questions.

Karen Walter

MITFD

From: DPyle@bellevuewa.gov [mailto:DPyle@bellevuewa.gov]
Sent: Thursday, March 05, 2009 10:18 AM
To: Karen Walter
Subject: RE: Yarrow Creek Restoration, 09-104532-LO, Notice of Application

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David Pyle

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With this information, we will determine if we have any comments about the proposed restoration work.

We appreciate your assistance in obtaining the available information requested above. Please let me know if you have any questions.

Thank you,

Karen Walter

Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division

39015 172nd Ave SE

Auburn, WA 98092

Pyle, David

From: Karen Walter [KWalter@muckleshoot.nsn.us]
Sent: Thursday, March 12, 2009 11:00 AM
To: Pyle, David
Cc: Fisher, Larry (DFW); reinbsgr@dfw.wa.gov
Subject: Yarrow Creek Tributary Restoration, 09-104532-LO, Notice of Application

Mr. Pyle

The Muckleshoot Indian Tribe Fisheries Division has reviewed the Notice of Application materials for the above referenced project. We have some questions about this project as noted below.

1. What is the purpose of the existing facility that requires maintenance?

2. Is there an overall maintenance plan for this site with measurable goals and objectives?

3. Sheet 1 of 5 shows an overflow inlet at the trash rack at the end of the existing pond. Is there a high flow by-pass system on this stream? If so, please describe.

4. Is the pond upstream of the abandoned Lake Washington Boulevard part of an overall stormwater system for this Yarrow Creek tributary?

5. Per the materials, the City had a maintenance permit to dredge 2 cubic yards of material from this stream, but ended up dredging 320 cubic yards of material. How will we ensure that future maintenance activities do not overdredge the site again and disturb the restored stream areas upstream?

6. Has the City replanted the site? If not, when will the site be replanted?

7. The Yarrow Creek Project Narrative indicates that the SR 520 widening project may affect this restoration site. According to Washington State Department of Transportation (WSDOT) staff at a meeting yesterday, WSDOT will not be affecting this site based on the information they have. If the City has different information, we would appreciate it if the City could forward to the Tribal Fisheries Division.

8. According to information we received from WSDOT, the culvert conveying this tributary under the former Lake Washington Boulevard is a fish passage barrier according to the Washington Department of Fish and Wildlife fish passage barrier guidelines. What are the

City’s plans to repair/replace this culvert so that it is fish passable as required by the State Hydraulics Code?

We appreciate the opportunity to review and comment on this proposal and look forward to the City’s responses to these questions.

Karen Walter

Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division

39015 172nd Ave SE

Auburn, WA 98092

Pyle, David

From: Karen Walter [KWalter@muckleshoot.nsn.us]
Sent: Monday, March 16, 2009 11:17 AM
To: Pyle, David
Subject: RE: Comments/response to the Muckleshoot Tribe on Yarrow, Yarrow Creek Tributary Restoration, 09-104532-LO, Notice of Application

David,

We have some follow-up questions to the responses from the applicant as noted below.

1. With respect to question 1, the response did not answer the question. The question we asked what is the purpose of the facility (not the maintenance work itself)? Why is sediment transport downstream a problem? It appears to be an instream sediment pond. Why was it built initially? How long has this instream pond been in place?

Has maintenance been completed previously? If so, how often and how much material was removed each time maintenance was completed? What size material is typically removed during maintenance?

2. Is there an overall plan for this facility? The response only describes the pursuit of permits but doesn't identify a plan for this facility.

3. If the existing overflow inlet is not a highflow by-pass structure, what is the purpose of this structure? Why is it described as an overflow inlet?

4. Assuming the habitat logs placed as part of mitigation for the overdredging of the pond will store sediment, how will the pond be managed now that there is wood in the channel to store sediment? Will it be reduced? Dredged less frequently?

5. We would like to review the maintenance guidelines identified in the responses below.

6. When was the site replanted? In Mr. McQuilliams' undated memo for this project, it suggests that as of February 3 2009 the site had not been replanted.

7. The City should replace the existing fish barrier culvert downstream of the pond when WSDOT will be replaces the SR 520 culvert downstream.

Thank you,

Karen Walter

Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division

39015 172nd Ave SE

Auburn, WA 98092

From: DPyle@bellevuewa.gov [mailto:DPyle@bellevuewa.gov]
Sent: Friday, March 13, 2009 2:01 PM
To: Karen Walter
Subject: FW: Comments/reponse to the Muckleshoot Tribe on Yarrow...

Karen-

Please let me know if you have any follow up questions to these responses from the applicant.

Thanks,

David Pyle
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov

From: McQuilliams, Don
Sent: Friday, March 13, 2009 2:01 PM
To: Pyle, David
Cc: KWalter@muckleshoot.nsn.us
Subject: FW: Comments/reponse to the Muckleshoot Tribe on Yarrow...

David, our responses to Ms. Walters questions are noted below in blue. Please let me know if you have any questions.

Don McQuilliams
Storm & Surface Water Superintendent
Utilities Department, O&M Division
(425) 452-7865

From: Karen Walter [mailto:KWalter@muckleshoot.nsn.us]
Sent: Thursday, March 12, 2009 11:00 AM
To: Pyle, David
Cc: Fisher, Larry (DFW); reinbsgr@dfw.wa.gov
Subject: Yarrow Creek Tributary Restoration, 09-104532-LO, Notice of Application

Mr. Pyle

The Muckleshoot Indian Tribe Fisheries Division has reviewed the Notice of Application materials for the above referenced project. We have some questions about this project as noted below.

1. What is the purpose of the existing facility that requires maintenance? Maintenance is conducted at this location to prevent sediment from entering the lower portion of the Yarrow Creek Tributary that feeds into Yarrow Bay on Lake Washington.

2. Is there an overall maintenance plan for this site with measurable goals and objectives? Sediment is to be removed from the settling pond on an annual basis as needed. We are currently updating the necessary permits to define the maximum allowable removal limits.

3. Sheet 1 of 5 shows an overflow inlet at the trash rack at the end of the existing pond. Is there a high flow by-pass system on this stream? If so, please describe. There is not a high flow bypass at this location and there is no plans to install a structure of this type. The existing inlet is approximately 3-5 feet above the bottom of the settling pond.

4. Is the pond upstream of the abandoned Lake Washington Boulevard part of an overall stormwater system for this Yarrow Creek tributary? The pond serves to function as a sediment trap for upstream material deposits.

5. Per the materials, the City had a maintenance permit to dredge 2 cubic yards of material from this stream, but ended up dredging 320 cubic yards of material. How will we ensure that future maintenance activities do not overdredge the site again and disturb the

restored stream areas upstream? Future maintenance guidelines will be defined in the appropriate permits to conduct the maintenance activities. All permits will be reviewed by the Operations Crew and Crew Leader before site work is to be conducted to ensure that the maximum allowable limits of the permits are listed appropriately and not exceeded.

6. Has the City replanted the site? If not, when will the site be replanted? Yes, the site has been replanted per the proposed site restoration plan.

7. The Yarrow Creek Project Narrative indicates that the SR 520 widening project may affect this restoration site. According to Washington State Department of Transportation (WSDOT) staff at a meeting yesterday, WSDOT will not be affecting this site based on the information they have. If the City has different information, we would appreciate it if the City could forward to the Tribal Fisheries Division. The information you received was put together before the WSDOT announced that they will not be conducting any work beyond the culvert at Lake Washington Blvd. To the best of our knowledge, the City has no plans at this time to remove or upgrade the existing structure under Lake Washington Blvd.

8. According to information we received from WSDOT, the culvert conveying this tributary under the former Lake Washington Boulevard is a fish passage barrier according to the Washington Department of Fish and Wildlife fish passage barrier guidelines. What are the City's plans to repair/replace this culvert so that it is fish passable as required by the State Hydraulics Code? There are no plans at this time to replace or upgrade this culvert that the Operations and maintenance Division is aware of.

We appreciate the opportunity to review and comment on this proposal and look forward to the City's responses to these questions.

Karen Walter

Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division

39015 172nd Ave SE

Auburn, WA 98092

Pyle, David

From: Karen Walter [KWalter@muckleshoot.nsn.us]
Sent: Tuesday, April 28, 2009 1:34 PM
To: Pyle, David
Subject: RE: Comments/response to the Muckleshoot Tribe on Yarrow, Yarrow Creek Tributary Restoration, 09-104532-LO, Notice of Application

David,

Thanks for responding our follow-up questions as noted below. Your answers provided us with a better understanding of the proposed project and actions taken to date. Our questions for this project were based on previous descriptions of the depression at the culvert from outside sources. We were told by WSDOT that this upstream depression was Bellevue's managed stormwater facility. In the conversations, WSDOT has expressed concern disturbing this facility and cited its existence as one of the reasons why they are not pursuing the replacement of the Yarrow Creek culvert under Lake Washington Boulevard as a mitigation measure for other actions in the SR 520 HOV project. The City's responses below indicate to me that this is not an engineered facility managed by the City, but more likely a depression that has formed due to culvert and channel hydraulics. It appears that the unpermitted work was culvert maintenance work, not dredging of an existing instream sediment pond. If I am incorrect in my interpretation, please let me know.

Thank you too for Rick Logwood's name and number. We'll call him about SR 520 project issues.

Regards,

Karen Walter

MITFD

From: DPyle@bellevuewa.gov [mailto:DPyle@bellevuewa.gov]
Sent: Tuesday, April 14, 2009 2:33 PM
To: Karen Walter
Cc: RLogwood@bellevuewa.gov; MPaine@bellevuewa.gov; DMcQuilliams@bellevuewa.gov
Subject: RE: Comments/response to the Muckleshoot Tribe on Yarrow, Yarrow Creek Tributary Restoration, 09-104532-LO, Notice of Application

Karen-

I have reviewed the additional questions listed below. Several of the questions are not directly related to this restoration project and may be better submitted through the records request process. Records requests can be made through the City Clerks Office. Please contact the City Clerks Records Division at 425-452-4895 or at publicrecords@bellevuewa.gov.

Please understand that this is a proposal to restore a segment of stream that was impacted by unpermitted and inappropriate clearing activity, and is limited to the restoration of that area. The scope of work addressed in the application does not include any proposal to modify the culvert under Lake Washington Boulevard, and does not address any future plans for the culvert structure. Likewise the plans submitted do not include any proposal to construct or maintain a stormwater or sediment pond. Any future request to construct or maintain a facility at this location is subject to a separate permit process from this restoration effort, and would require noticing and SEPA review.

Q) With respect to question 1, the response did not answer the question. The question we asked what is the purpose of the facility (not the maintenance work itself)? Why is sediment transport downstream a problem? It appears to be an instream sediment pond. Why was it built initially? How long has this instream pond been in place? Has maintenance been completed previously? If so, how often and how much material was removed each time maintenance was completed? What size material is typically removed during maintenance?

A) Sediment transport has occurred due to upstream erosion within vicinity of the stream channel and sediment has been transported downstream. The unpermitted action taken by the City Utilities Department was an attempt to clean material from around the culvert that was trapped due to a depression that was established by the construction of the Lake Washington Boulevard road grade. Unfortunately there was no permit to complete this work and the amount of work that was completed was excessive. The application under review is in response to a code violation action that required the submittal of a restoration plan to restore the stream channel and adjacent upland that was impacted by the proposal and does not include any request to create or maintain a stormwater facility or sediment pond. Additional information on historic maintenance activity at this culvert location can be obtained by contacting the City's Utilities Department Storm and Surface Water Division or by filing a public records request as described above.

Q) Is there an overall plan for this facility? The response only describes the pursuit of permits but doesn’t identify a plan for this facility.

A) Please contact the Utilities Department Storm and Surface Water Division for answers to this question or submit a public records disclosure as described above. This is an application for stream restoration and does not include a long term plan for the maintenance of this segment of stream aside from the maintenance of the features installed as part of the restoration (logs, plantings). There is no proposal to establish a stormwater or sediment "facility" as part of this permit application. Any future action to construct or maintain a "facility" does require a separate permit process.

Q) If the existing overflow inlet is not a highflow by-pass structure, what is the purpose of this structure? Why is it described as an overflow inlet?

A) There is no overflow or highflow by-pass in this system. The feature labeled "overflow inlet" is improperly labeled and should instead be labeled "culvert inlet".

Q) Assuming the habitat logs placed as part of mitigation for the overdredging of the pond will store sediment, how will the pond be managed now that there is wood in the channel to store sediment? Will it be reduced? Dredged less frequently?

A) There is no plan included as part of this application to dredge or maintain the depression that surrounds the culvert. The proposal submitted is limited to the restoration of the stream channel. Any future work or work outside of the scope of this proposal will require additional permit review and SEPA processing. Any plans to establish or maintain a sediment facility must be permitted as a separate action.

Q) We would like to review the maintenance guidelines identified in the responses below.

A) The City Utilities Department is currently in the process of analyzing this drainage system and is aware that a maintenance permit and SEPA review will be required for any future work in this stream segment. Maintenance guidelines will be be required at the point of future permit review for "maintenance" of the depression area surrounding the culvert on the upstream side of the old Lake Washington Boulevard road grade. No maintenance or excavation within the depression area is allowed or proposed as part of this permit application. Minor filling was completed as part of the stream restoration and is consistent with the plans that were submitted as part of this application.

Q) When was the site replanted? In Mr. McQuilliams’ undated memo for this project, it suggests that as of February 3 2009 the site had not been replanted.

A) The site was replanted in the last week of February, 2009.

Q) The City should replace the existing fish barrier culvert downstream of the pond when WSDOT will be replaces the SR 520 culvert downstream.

A) The City is aware of the WSDOT Plans to improve the SR 520 Yarrow Creek culvert. This action is outside of the scope of work included as part of this application (09-104532-LO) and the work under review is limited to the restoration/repair of the damage done to the stream channel as part of the unpermitted clearing and grading completed by the Utilities Department in this reach of Yarrow Creek. For more information on City plans related to the WSDOT SR-520 project, please contact Rick Logwood in the City Transportation Department at rlogwood@bellevuewa.gov or at 425-452-6858. Mr. Logwood is the point of contact for the SR-520 project and would be best suited to forward your comments on to the appropriate contact within the City.

As stated above, if there are any additional requests for information related to this stream section that are not directly related to the restoration of the area impacted by the unpermitted Utilities Department excavation, you may be best served by contacting the Utilities Department directly, or by filing a public records disclosure request. Likewise, I would be happy to help determine who you should contact within the City to obtain more information on specific topics that may not be related to a specific project or permit application. If you have additional questions please feel free to forward them to me.

David Pyle
Senior Land Use Planner
City of Bellevue
dpyle@bellevuewa.gov
(425)452-2973 (Office)
(425)452-5225 (Fax)
www.bellevuewa.gov

From: Karen Walter [mailto:KWalter@muckleshoot.nsn.us]
Sent: Monday, March 16, 2009 11:17 AM
To: Pyle, David
Subject: RE: Comments/response to the Muckleshoot Tribe on Yarrow, Yarrow Creek Tributary Restoration, 09-104532-LO, Notice of Application

David,

We have some follow-up questions to the responses from the applicant as noted below.

1. With respect to question 1, the response did not answer the question. The question we asked what is the purpose of the facility (not the maintenance work itself)? Why is sediment transport downstream a problem? It appears to be an instream sediment pond. Why was it built initially? How long has this instream pond been in place?

Has maintenance been completed previously? If so, how often and how much material was removed each time maintenance was completed? What size material is typically removed during maintenance?

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3. If the existing overflow inlet is not a highflow by-pass structure, what is the purpose of this structure? Why is it described as an overflow inlet?

4. Assuming the habitat logs placed as part of mitigation for the overdredging of the pond will store sediment, how will the pond be managed now that there is wood in the channel to store sediment? Will it be reduced? Dredged less frequently?

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Thank you,

Karen Walter

Watersheds and Land Use Team Leader

Muckleshoot Indian Tribe Fisheries Division

39015 172nd Ave SE

Auburn, WA 98092

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Sent: Friday, March 13, 2009 2:01 PM
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Cc: KWalter@muckleshoot.nsn.us
Subject: FW: Comments/reponse to the Muckleshoot Tribe on Yarrow...

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Don McQuilliams
Storm & Surface Water Superintendent
Utilities Department, O&M Division
(425) 452-7865

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Sent: Thursday, March 12, 2009 11:00 AM
To: Pyle, David
Cc: Fisher, Larry (DFW); reinbsgr@dfw.wa.gov
Subject: Yarrow Creek Tributary Restoration, 09-104532-LO, Notice of Application

Mr. Pyle

The Muckleshoot Indian Tribe Fisheries Division has reviewed the Notice of Application materials for the above referenced project. We have some questions about this project as noted below.

1. What is the purpose of the existing facility that requires maintenance? Maintenance is conducted at this location to prevent sediment from entering the lower portion of the Yarrow Creek Tributary that feeds into Yarrow Bay on Lake Washington.

2. Is there an overall maintenance plan for this site with measurable goals and objectives? Sediment is to be removed from the settling pond on an annual basis as needed.

We are currently updating the necessary permits to define the maximum allowable removal limits.

3. Sheet 1 of 5 shows an overflow inlet at the trash rack at the end of the existing pond. Is there a high flow by-pass system on this stream? If so, please describe. There is not a high flow bypass at this location and there is no plans to install a structure of this type. The existing inlet is approximately 3-5 feet above the bottom of the settling pond.

4. Is the pond upstream of the abandoned Lake Washington Boulevard part of an overall stormwater system for this Yarrow Creek tributary? The pond serves to function as a sediment trap for upstream material deposits.

5. Per the materials, the City had a maintenance permit to dredge 2 cubic yards of material from this stream, but ended up dredging 320 cubic yards of material. How will we ensure that future maintenance activities do not overdredge the site again and disturb the restored stream areas upstream? Future maintenance guidelines will be defined in the appropriate permits to conduct the maintenance activities. All permits will be reviewed by the Operations Crew and Crew Leader before site work is to be conducted to ensure that the maximum allowable limits of the permits are listed appropriately and not exceeded.

6. Has the City replanted the site? If not, when will the site be replanted? Yes, the site has been replanted per the proposed site restoration plan.

7. The Yarrow Creek Project Narrative indicates that the SR 520 widening project may affect this restoration site. According to Washington State Department of Transportation (WSDOT) staff at a meeting yesterday, WSDOT will not be affecting this site based on the information they have. If the City has different information, we would appreciate it if the City could forward to the Tribal Fisheries Division. The information you received was put together before the WSDOT announced that they will not be conducting any work beyond the culvert at Lake Washington Blvd. To the best of our knowledge, the City has no plans at this time to remove or upgrade the existing structure under Lake Washington Blvd.

8. According to information we received from WSDOT, the culvert conveying this tributary under the former Lake Washington Boulevard is a fish passage barrier according to the Washington Department of Fish and Wildlife fish passage barrier guidelines. What are the City’s plans to repair/replace this culvert so that it is fish passable as required by the State Hydraulics Code? There are no plans at this time to replace or upgrade this culvert that the Operations and maintenance Division is aware of.

We appreciate the opportunity to review and comment on this proposal and look forward to the City’s responses to these questions.

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Watersheds and Land Use Team Leader

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