



July 6, 2007

Darla Inglis  
Seattle Public Utilities  
700 Fifth Avenue, 4900  
P.O. Box 34018  
Seattle, Washington 98124-4018

Subject: Thornton Creek Water Quality Channel – Flow Control Strategies

2200 Sixth Avenue  
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Seattle  
Washington  
98121  
  
(206) 441-9080  
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Dear Darla:

This letter presents strategies for adaptive management of the Thornton Creek Water Quality Channel (TCWQC) in order to achieve the project performance objective of minimizing possible increases in peak flows in South Branch Thornton Creek downstream from the project site.

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59802  
  
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The recommendations presented herein supersede two specific recommendations related to flow control that were made in the *Hydraulic Modeling and Water Quality Evaluation for Thornton Creek Water Quality Channel* report (report) prepared by Herrera for Seattle Public Utilities (SPU) in June 2007. Those recommendations include 1) using low impact development techniques, such as porous pavement sidewalks, to reduce site runoff and 2) including an adjustable weir within the Thornton Creek Water Quality Channel (TCWQC) outlet to allow for operational control of hydraulic residence times within the channel and to further control peak flow rates leaving the project site.

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We understand that the project will not include porous pavement sidewalks and that the outlet to the TCWQC will not initially include an adjustable weir. However, the outlet structure will be constructed so that an adjustable weir can be installed at a later date, if needed, to help meet the flow control performance goal stated above.

435 Holgerson Road  
Sequim  
Washington  
98382

Recommendations were made in the report for long-term continuous flow monitoring of the TCWQC and South Branch Thornton Creek to establish baseline and postconstruction flow conditions and to monitor possible changes in creek flow rates after construction of the project. We recommend that these monitoring data be evaluated on an ongoing basis to determine whether construction of the project has an impact on peak flows leaving the site relative to baseline conditions. If deemed necessary based on these observations, the weir within the main diversion structure can be raised up to 1 foot above the normal operating elevation (from 248 feet to 249 feet in elevation). If additional flow control is needed based on evaluation of the monitoring data, the additional adjustable weir can be added within the outlet of the TCWQC. Other recommendations were made in the report for basinwide flood

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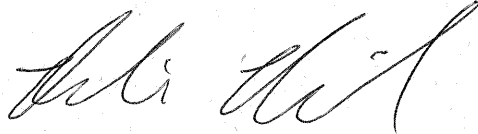


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control that may also be implemented to help meet the flow control objective for the project.

Sincerely,

Herrera Environmental Consultants, Inc.



Robin Kirschbaum, PE  
Senior Engineer

Enclosure: None

cc: 01-01948-373 project file



7-6-07

EXPIRES 2-22-09