

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

<p>AGENDA TITLE: Ronald Bog South Project Design Award</p> <p>DEPARTMENT: Public Works</p> <p>PRESENTED BY: Mark Relph, Public Works Director Jesus Sanchez, Public Works Operations Manager Jerry Shuster, Surface Water and Environmental Services Manager</p>

EXECUTIVE SUMMARY

The objectives for this project are to resolve past flooding problems downstream of Ronald Bog, and identify opportunities for implementing project features that provide a water quality, habitat, and community benefit. The project begins at the outlet to Ronald Bog and ends at the intersection of N 167th Street and Corliss Place N.

In early 2006, the City selected RW Beck from five firms that responded to a request for qualifications (RFQ) for this project. Based on their experience in the basin and on projects of similar scope and size, RW Beck was selected. On April 10, 2006 Council approved a professional services contract for pre-design and permitting for this project. The result of this previous contract was a 30% design completed in December 2006.

This 30% design document will be formally submitted to the appropriate regulatory permitting agencies (U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife) once the City completes the State Environmental Policy Act (SEPA) process. The City began the SEPA process based on the 30% design submittal on January 18, 2007. The City intends to work closely with the permitting agencies to address the interests of all stakeholders involved in the project.

The City has been pleased with RW Beck's work on the 30% design. The original RFQ stated that the selected firm may also be requested to continue services and prepare final plans, specifications, and an engineer's cost estimate. It is recommended that RW Beck continue providing design services for this project.

This new professional service contract will complete the design of the project and produce construction-ready documents. The scope of work for this award includes:

- Regulatory Permitting Support
- Geotechnical Evaluation
- Production of 60%, 90 %, and 100% design submittals
- Production of Bid Documents

The project schedule will be largely influenced by the permitting requirements. Due to the location of the project, the majority of the construction can only be completed within the "fish window" between July 1st and September 30 of any year.

FINANCIAL IMPACT

In 2001, the City obtained a loan from the Public Works Trust Fund for surface water projects in the Ronald Bog basin at an interest rate of 0.5%. Approximately 60% of this loan remains for surface water projects in the basin (\$2.26 Million remains). The 2007 - 2012 CIP includes approximately \$1,889,000 for the flood protection portion of the Thornton Creek Corridor Project. Additional funding for the proposed water quality features and habitat enhancement are programmed into the Surface Water Master Plan.

The value of this design contract is \$188,633 approximately 10% of the total dollars identified for the flood protection portion of this project. The design also includes water quality and habitat improvement features. This contract will be entirely funded by a Public Works Trust Fund loan obtained by the City in 2001.

STAFF RECOMMENDATION

Staff recommends Council authorize the City Manger to sign a contract in the amount of \$188,633 with RW Beck for engineering design services for the Ronald Bog South Project..

Approved By: City Manager  City Attorney ____

INTRODUCTION

During the Summer of 2005, Council approved the Surface Water Master Plan (SWMP). The 2007-2012 Capital Improvement Plan (CIP) was approved in 2007. Both these documents included several CIP projects in the vicinity of Ronald Bog. This contract will provide construction-ready plans and specifications for the Thornton Creek Corridor Project.

BACKGROUND

In early 2002, Council approved the *Ronald Bog Drainage Improvements, Phase 1, Thornton Creek Tributary Flood Reduction Study*, prepared by Otak, Inc. (dated December 7, 2001). Several of the projects that were recommended by Otak in the study, have been implemented in the basin. Additional local flooding correction projects were also implemented. The other projects contained in the Otak plan have been included in the SWMP for future implementation. The following are the projects that have been implemented:

- 10th Avenue NE/11th Avenue NE & 175th improvements
- Serpentine project –pipe and lift station improvements
- Drainage improvements on 1st Avenue NE between NE 180th and NE 192nd Street.
- North City Drainage Improvements
- WSDOT I-5/N 175th Street drainage modifications

These implemented projects and the established regular maintenance of the storm drainage system, have changed the hydraulic regime of the basin compared to 2001. Regular maintenance includes root cutting, pipe jetting, and repair of damaged infrastructure. As discussed in the City's Surface Water Master Plan (item F2a, page 59) these improvements necessitate a re-evaluation of the alternatives for the corridor from Ronald Bog south to the culvert under N167th St.

In addition, one of the major assumptions used to formulate the solutions suggested by Otak was that no property would be acquired for stormwater management purposes. This project will re-examine the option of acquiring property for stormwater and habitat management purposes.

The City would like to address historic flooding of private property in the Thornton Creek Corridor, defined for this project as the drainage system from the outlet of Ronald Bog to and N 167th Street (Project Area-See Attachment A). Despite all the work done in this area, the outflow pipe from the Bog still has inadequate capacity for large storm events, is at reverse grade, and is in poor condition. Up to 20 homes have had damage in major storm events.

In addition to alleviating flooding problems in the Project Area, the goal of this project is to construct features that also provide a water quality, habitat, and community benefit in accordance with the goals and objectives established by City policies and the Surface

Water Master Plan. These features will be incorporated to the extent possible given budgetary and physical constraints.

In early 2006, the City selected RW Beck from five firms that responded to a request for qualifications (RFQ) for this project. RW Beck was selected based on their experience in the basin and on projects of similar scope and size. On April 10, 2006, Council approved a professional services contract for pre-design and permitting for this project. The result of this previous contract was a 30% design completed in December 2006.

The 30% design includes the following items:

- Existing conveyance system: Replacing, realigning for positive slope, and upsizing the existing conveyance pipelines.
- Habitat Improvements to the Existing Open Channel System South of N. 170th St: Re-grading, adding some sinuosity, and re-vegetating and stabilizing new bank slopes to create a more natural open channel system with more stable side slopes. In addition, existing culverts will be replaced with fish-friendly bottomless arch or box culverts.
- New High Flow Bypass: Adding a new piped conveyance system that parallels the upgraded open channel system to prevent channel scour and provide flood protection to adjacent homes located on Corliss Place N.
- Water Quality Improvements: Constructing additional water quality features to treat runoff from the right-of-way.

The proposed project would reduce flooding in the area immediately downstream of Ronald Bog and would improve the existing channel/riparian environment. Large woody debris and bank vegetation with native plantings will be coordinated with the private property owners. The project is expected to provide water quality benefits by reducing the frequency of flooding of pollution-generating surfaces (i.e. streets). In addition, routing street runoff through new landscape curb extensions and grass swales will provide a level of treatment not currently provided.

This 30% design document will be formally submitted to the appropriate regulatory permitting agencies (U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife) once the City completes the SEPA process. The City began the SEPA process based on the 30% design submittal on January 18, 2007. The original SEPA comment period ended February 12, 2007, but was extended to February 20, 2007 based on citizen input.

The City intends to work closely with the permitting agencies and residents to address the interests of all stakeholders involved in the project. This includes incorporating any mitigation required due to increases in creek flows downstream of this project. Elements of this project include a study and review of the diverter structure installed by the State per an agreement with a private property owner (1963). The Washington Department of Transportation agreement with the private property owner limits the amount of flow that can go through the reach of Thornton Creek that traverses the private property (17 cubic feet per second). The City of Shoreline is not a party to

this agreement. This project will be designed such that Creek flows through the private property remain the same post construction.

This new professional service contract will complete the design of the project and produce construction-ready documents. The scope of work for this award includes:

- Regulatory Permitting Support
- Additional modeling and design options to address the downstream concerns
- Geotechnical Evaluation
- Production of 60%, 90%, and 100% design submittals
- Production of Bid Documents

The project schedule will largely be influenced by the permitting requirements. Due to the location of the project, the majority of the construction can only be completed within the "fish window" (July 1st through September 30) of any year.

CONSULTANT SELECTION

The City has been pleased with RW Beck's work on the 30% design. The original RFQ stated that the selected firm may also be requested to continue services and prepare final plans, specifications, and an engineer's cost estimate. It is recommended that RW Beck continue providing design services for this project.

FINANCIAL IMPACT

In 2001, the City obtained a loan from the Public Works Trust Fund for surface water projects in the Ronald Bog basin at an interest rate of 0.5%. Approximately 60% of this loan remains for surface water projects in the basin (\$2.26 Million remains). The 2007 - 2012 CIP includes approximately \$1,889,000 for the flood protection portion of the Thornton Creek Corridor Project. Additional funding for the proposed water quality features and habitat enhancement are programmed into the Surface Water Master Plan.

The value of this design contract is \$188,633 approximately 10% of the total dollars identified for the flood protection portion of this project. The design also includes water quality and habitat improvement features. This contract will be funded in its entirety by a Public Works Trust Fund loan obtained by the City in 2001.

RECOMMENDATION

Staff recommends Council authorize the City Manger to sign a contract in the amount of \$188,633 with RW Beck for engineering design services for the Ronald Bog South Project.

ATTACHMENTS

Attachment A 30% Design Concept



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