AM NO. 11-126 (C.10)

CityofRedmond
WASHINGTON

MEMO TO: City Council

FROM: John Marchione, Mayor

DATE: June 21, 2011

SUBJECT: **APPROVAL OF SUPPLEMENTAL CONSULTANT AGREEMENT NO. 4 FOR THE GROUNDWATER MONITORING NETWORK ENHANCEMENT PROJECT**

I. RECOMMENDED ACTION:

Approve Supplemental Consultant Agreement No. 4 with GeoEngineers to provide engineering services for the Groundwater Monitoring Network Enhancement Project, in the amount of $254,987, and authorize the Mayor to sign the agreement.

II. DEPARTMENT CONTACT PERSONS:

Bill Campbell, Director of Public Works	425-556-2733
Ron Grant, Assistant Public Works Director/City Engineer	425-556-2742
Elaine Dilley, Groundwater Technician	425-556-2757

III. DESCRIPTION:

Background

The City of Redmond operates five supply wells that provide approximately 40% of Redmond's drinking water. These wells are screened in a shallow, unconfined, alluvial aquifer located in downtown and industrial areas and are therefore rated moderately to highly vulnerable. Redmond's 1997 Source Water Assessment determined that the quality of water in the aquifer was excellent based on the fact that water samples from the five supply wells had been routinely collected and were generally in compliance with maximum contaminant levels for public water supplies. Over the next ten years, groundwater sampling was conducted predominantly at the supply wells.

In October 2003, City Council adopted a Wellhead Protection Ordinance to meet federal, state, and regional requirements for the protection of the City's drinking water supply. An important requirement of the ordinance is the citywide groundwater monitoring program

to detect the presence of contaminants and declines in water levels before they impact a water supply well.

In an effort to assess overall water quality in the shallow alluvial aquifer, the City established a Groundwater Monitoring Program in 2007. Redmond obtained access to monitor several privately-owned groundwater monitoring wells and gathered data from private investigations and clean-ups. Additionally, the City installed a network of groundwater monitoring wells to fill-in spatial data gaps, focusing upgradient of the supply wells and downgradient of known contaminated sites (many of which were dry cleaners).

Project Description

The purpose of this project is to enhance the network of monitoring wells to provide additional information on the movement of contaminants in downtown Redmond and groundwater interaction with surface water. Work includes pre-installation field activities; geoprobe borehole advancement and groundwater sampling; installation, development, instrumentation, survey and sampling of wells, in-stream piezometers, and stream gauges; and preparation of reports that include analysis and evaluation of results. Approximate locations are shown on Attachment A.

Geoprobe technology will be utilized to investigate locations near ten historical dry cleaners in an effort to identify a source (or sources) of the extensive low-level perchloroethylene (PCE) contamination in downtown Redmond. The data collected from the Geoprobe borings and new wells will be utilized to initiate site hazard assessment at locations identified to be potential sources of the PCE plume, through the Washington State Department of Ecology. This is the first step toward thorough site investigation and cleanup.

Once this effort is completed, Natural Resources wellhead protection staff will have enhanced ability to track contaminants to their source and initiate site investigation and cleanup. They will have a better understanding of groundwater/surface water interactions, as well as the ability to triangulate groundwater flow direction and gradient in the wellhead protection zones on the west side of the Sammamish River.

IV. IMPACT:

A. Service/Delivery:

This project will equip Wellhead Protection Program staff with the information necessary to protect public health and the environment. Additionally, analysis of the data collected from the groundwater monitoring network will enable the City

to make better policy and management decisions regarding groundwater protection which affect property owners and businesses throughout the City.

B. Fiscal:

Project Costs	
Supplemental Consultant Agreement No. 4	$254,987
Project Funding	
Water/Wastewater CIP	$254,987

V. ALTERNATIVES:

Reject the Proposal: The City could continue to rely upon the existing groundwater monitoring well network. This alternative would greatly limit the ability for wellhead protection staff to determine the source(s) of PCE contamination in downtown Redmond and groundwater interaction with surface water.

VI. TIME CONSTRAINTS:

City Council's approval will allow this project to proceed in July 2011. All monitoring points will be installed by September 2011. One dry season and one wet season groundwater monitoring event will be complete by March 2012.

VII. LIST OF ATTACHMENTS:

A. 2011/2012 Groundwater Monitoring Network Enhancement Project Map
B. Supplemental Consultant Agreement No. 4

William J. Campbell, Director of Public Works — 6/10/11 Date

Approved for Council Agenda — John Marchione, Mayor — 6/13/11 Date