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PORTLAND
Office Coming Soon

RICHLAND
114 Columbia Point Drive, Suite C
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TACOMA
One Pacific Building
621 Pacific Avenue, Suite 104
Tacoma, WA 98402

January 4, 2013

Mr. Kevin Hushagen, Utilities Superintendent
City of Stanwood
10220 270th Street NW
Stanwood, WA 98292

*Sent via:* *Email and US Mail*

**Subject: Engineering Services for Hatt Slough Springs Geologic and Geotechnical Evaluation**

Dear Mr. Hushagen:

Thank you for the opportunity to present RH2 Engineering, Inc.'s (RH2) scope of work and fee estimate to perform engineering services for the City of Stanwood's (City) Hatt Slough Springs Geologic and Geotechnical Evaluation. The scope of work is contained in **Exhibit A**. The estimated fee for these services is detailed in **Exhibit B**, and is based on the hourly rates and charges identified in **Exhibit C**.

This work will be accomplished under the contract City Engineering Services dated January 13, 2011, between the City and RH2. If the scope of work and estimated fee meet your satisfaction, you may authorize the work by signing in the space provided at the end of this letter and returning this letter to our office.

We are prepared to proceed with this project when authorization is received from the City. If you have any questions regarding this proposal, please contact me directly at (425) 951-5312.

Sincerely,

**RH2 ENGINEERING, INC.**

Tony V. Pardi

Tony V. Pardi, P.E.
Vice President

BEB/TVP/jq

Enclosures: Exhibit A – Scope of Work
Exhibit B – Fee Estimate
Exhibit C – Schedule of Rates and Charges



City of Stanwood
Contract #2013-005

The engineering services described in this letter and accompanying scope of work and fee estimate are acceptable to the City of Stanwood, and RH2 Engineering, Inc., is hereby authorized to proceed with the work.

**Authorization for Engineering Services for the Hatt Slough Springs Geologic and Geotechnical Evaluation – Not to Exceed $20,617.**

Dianne White 1/25/13

City of Stanwood Date

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**OPTIONAL: Authorization for Task 2 – Hydrogeologic Evaluation – Not to Exceed $9,818.**

City of Stanwood Date

# Exhibit A
# Scope of Work
# City of Stanwood
# Hatt Slough Springs Geologic and Geotechnical Evaluation

January 2013

## Background

The City of Stanwood's (City) Hatt Slough Springs source of supply facility is located south of the City limits and Hatt Slough, near the base of a steep slope. The springs are situated on City-owned property in an undeveloped area that is accessed by a dirt road from Marine Drive. Four spring collection areas are located within the fenced and secured property. Each collection area has an infiltration piping gallery that delivers water to a 300-gallon settling tank. Water is conveyed by gravity through pipes from each of the settling tanks to the pump building, which houses the mechanical, chlorination, and electrical equipment. The Hatt Slough Springs source was constructed in 1934 and was granted a maximum instantaneous water right of 1,125 gallons per minute (gpm) in 1939 under water right S1-02432CWRIS. However, the current maximum supply rate of the springs is approximately 250 gpm.

Since the existing collection system does not have the capacity to fully utilize the water right for the spring source, the City's 2010 Comprehensive Water System Plan (WSP) recommended Capital Improvement Project (CIP) F10 for conducting a Hatt Slough Springs Study. The project is described as follows:

> Conduct an evaluation of the Hatt Slough Springs to determine the sources' ability to produce water supply at a rate equivalent to the water right amount. Identify improvements for increasing the capacity of the source. Recommend a sampling schedule and procedures for the City to implement to determine the potential for surface water influence on the spring. Also, evaluate the stability of the steep slope adjacent to the facility and recommend measures to resolve any concerns regarding the slope's stability.

CIP F11 is the proposed Hatt Slough Rehabilitation project, which would replace the aging facility with a facility that fully utilizes the existing water right.

Since the time of the WSP, the access road to the Hatt Slough Springs facility has become a significant problem as it is now impassable. Access to this site must be evaluated to determine the ability to continue using this source in the future. The purpose of the Scope of Work is to perform initial geologic and geotechnical analyses for evaluating the feasibility of the City's continued operation of the Hatt Slough Springs Source and potential enhancement of the water supply rate from the source.

## Task 1 – Site Access and Water Main Evaluation

**Objective:** Evaluate the ability to repair the existing access road or construct an alternative access road and the resulting impact on the existing transmission main. Evaluate site slope stability.

**Approach:**

1.1 Review aerial photos, geologic and soil maps, topography, and parcel boundaries to determine if other access points are available to the site.

1.2 Perform a site visit to assess and identify geologic, topographic, and groundwater seepage conditions promoting unstable slopes along current roadway and along potential alternate routes.

1.3 Summarize slope stability risk factors and options for risk mitigation along current roadway and along potential alternate routes.

1.4 Prepare planning-level schematic designs and preliminary cost estimates to: 1) repair the existing access road along its current alignment; and 2) construct an alternate site access road along a new alignment, including potential impacts to the transmission main alignment from Hatt Slough Springs to Marine Drive.

1.5 Prepare report summarizing findings and evaluation of the efforts listed in this task.

**RH2 Deliverables:**

- Summary report describing the findings of the evaluation of the site access and water main.

## Optional Task 2 – Hydrogeologic Evaluation

**The City may authorize this Task 2 separately to allow the City flexibility in what work is performed for this project.**

**Objective:** Evaluate the options for improving the spring collection system and developing a well or well field source to fully utilize the existing water right and increase water production.

**Approach:**

2.1 Prepare hydrogeologic evaluation of springs to identify sources of groundwater recharge, groundwater flow, and estimated spring discharge.

2.2 Evaluate enhancement of spring collection system and constructing a well or well field system.

2.3 Evaluate alternatives and water rights processing to relocate the point of withdrawal for the Hatt Slough Springs water right or to entrust the water right.

2.4 Prepare summary report with summary comparison of spring and well/well field alternatives including water rights processing, design and construction, system operation and maintenance, and risk-benefit.

**RH2 Deliverables:**

- Summary report (to be incorporated with the Task 1 report) describing the findings of the hydrogeologic evaluation.

## Task 3 – Project Coordination and Management

**Objective:** Monitor scope and budget. Maintain project files and records.

**Approach:**

3.1 Monitor budget spent and provide monthly status updates.

3.2 Maintain project records and project files.

3.3 Manage design team.

**RH2 Deliverables:**

- Monthly invoices and progress reports that outline the current status of various tasks and present progress.

## Task 4 – Management Reserve

**Objective:** Address unanticipated services associated with this project, as needed. A separate written authorization will be provided by the City prior to any work being performed on this activity. The management reserve is set at 10 percent of the estimated fee for the Hatt Slough Springs Evaluation.

**Approach:**

4.1 Address unanticipated services beyond what is identified in the Hatt Slough Springs Evaluation services listed in this Scope of Work.

## Provided by the City

The City will provide the following items and services to facilitate the project. RH2 will rely on the accuracy and completeness of the data furnished by others including, but not limited to, mapping, geotechnical reports, plans, and utilities information.

- Available geologic, geotechnical, and soil investigation reports for the project site.
- Any available plans for the project site and the existing improvements.
- Any mapping information available for the project area including, but not limited to, aerial survey and photo, existing utility information, and right-of-way boundaries.

## Schedule

It is the intention of both parties that the work for this project shall be fully completed by end of year 2013. The following are anticipated milestones to achieve the schedule:

Deliver report to the City by March 31, 2013.

City staff will present the findings to the Public Works Committee at the meeting on April 8, 2013.

The schedule for this project may be modified as mutually agreeable to both parties.

# EXHIBIT B

## City of Stanwood
## Hatt Slough Springs Geologic and Geotechnical Evaluation

### Estimate of Time and Expense

| | Description / Classification | Total Hours | Total Labor | Total Expense | Total Cost |
|---|---|---|---|---|---|
| **Task 1** | **Site Access and Water Main Evaluation** | | | | |
| 1.1 | Review available geologic and topographic information | 4 | $ 708 | $ 18 | $ 726 |
| 1.2 | Assess and identify unstable slope conditions | 8 | $ 1,416 | $ 85 | $ 1,501 |
| 1.3 | Summarize slope stability risks and mitigation | 12 | $ 2,088 | $ 52 | $ 2,140 |
| 1.4 | Planning-level schematic designs and cost estimates | 42 | $ 6,480 | $ 792 | $ 7,272 |
| 1.5 | Prepare summary report | 31 | $ 4,799 | $ 293 | $ 5,092 |
| | **Subtotal** | **97** | **$ 15,491** | **$ 1,240** | **$ 16,731** |
| **Task 2** | **OPTIONAL - Hydrogeologic Evaluation** | | | | |
| 2.1 | Prepare hydrogeologic summary of current spring source | 12 | $ 2,124 | $ 53 | $ 2,177 |
| 2.2 | Evaluate spring enhancement and new well options | 14 | $ 2,460 | $ 62 | $ 2,522 |
| 2.3 | Evaluate water rights alternatives | 10 | $ 1,770 | $ 44 | $ 1,814 |
| 2.4 | Prepare summary report comparing spring and well options | 20 | $ 3,065 | $ 241 | $ 3,306 |
| | **Subtotal** | **56** | **$ 9,419** | **$ 399** | **$ 9,818** |
| **Task 3** | **Project Coordination and Meetings** | | | | |
| 3.1 | Monitor budget and monthly status updates | 2 | $ 354 | $ 9 | $ 363 |
| 3.2 | Maintain project records and project files | 3 | $ 345 | $ 48 | $ 393 |
| 3.3 | Manage design team | 2 | $ 354 | $ 9 | $ 363 |
| | **Subtotal** | **7** | **$ 1,053** | **$ 66** | **$ 1,119** |
| | **PROJECT SUBTOTAL** | **160** | **$ 25,963** | **$ 1,706** | **$ 27,669** |
| **Task 4.1** | **Management Reserve - 10%** | | | | **$ 2,767** |
| | **PROJECT TOTAL** | | | | **$ 30,435** |

# EXHIBIT C
# RH2 Engineering, Inc.
# SCHEDULE OF RATES AND CHARGES

## 2013 HOURLY RATES

| CLASSIFICATION | | RATE | CLASSIFICATION | | RATE |
|---|---|---|---|---|---|
| Professional | IX | $199.00 | Technician | IV | $127.00 |
| Professional | VIII | $199.00 | Technician | III | $119.00 |
| Professional | VII | $191.00 | Technician | II | $88.00 |
| | | | Technician | I | $83.00 |
| Professional | VI | $177.00 | | | |
| Professional | V | $168.00 | Administrative | V | $118.00 |
| Professional | IV | $158.00 | Administrative | IV | $98.00 |
| | | | Administrative | III | $84.00 |
| Professional | III | $148.00 | Administrative | II | $68.00 |
| Professional | II | $137.00 | Administrative | I | $57.00 |
| Professional | I | $125.00 | | | |

## IN-HOUSE SERVICES

| | | | | | |
|---|---|---|---|---|---|
| In-house copies (each) | 8.5" X 11" | $0.09 | CAD Plots | Large | $25.00 |
| In-house copies (each) | 8.5" X 14" | $0.14 | CAD Plots | Full Size | $10.00 |
| In-house copies (each) | 11" X 17" | $0.20 | CAD Plots | Half Size | $2.50 |
| In-house copies (color) (each) | 8.5" X 11" | $0.90 | CAD System | Per Hour | $27.50 |
| In-house copies (color) (each) | 8.5" X 14" | $1.20 | GIS System | Per Hour | $27.50 |
| In-house copies (color) (each) | 11 X 17" | $2.00 | Technology Charge | | 2.5% of Direct Labor |
| | | | Mileage | | Current IRS Rate |

## OUTSIDE SERVICES

Outside direct costs for permit fees, reports, maps, data, reprographics, couriers, postage, and non-mileage related travel expenses that are necessary for the execution of the project and are not specifically identified elsewhere in the contract will be invoiced at cost.

All Subconsultant services are billed at cost plus 15%.

## CHANGES IN RATES

Rates listed here are adjusted annually. The current schedule of rates and charges is used for billing purposes. Payment for work accomplished shall be based on the hourly rates and expenses in effect at the time of billing as stated in this Exhibit.