9G

MEMORANDUM
For Meeting of February 10th, 2009

TO: Mayor and Councilmembers
THROUGH: Steve Worthington
FROM: Russ Blount and Ken Gill
SUBJECT: **Resolution 1285** – Authorize Agreement with RH2 Engineers for Testing of Holt Well

REPORT IN BRIEF: The Holt boring has now been completed to a depth of 1,006 feet; a pump test needs to be completed to determine sustainable yield and water quality samples collected to determine if any treatment is required.

BACKGROUND: The Council approved Resolution 1152 on October 9, 2007, authorizing RH2 to provide engineering of Municipal Water Supply Wells and Alternatives. The analysis determined that the Holt site was appropriate for further development and testing.

The Council approved Resolution 1238 on September 9, 2008, authorizing RH2 and Boart Longyear to advance the well from 600 feet to 900 feet. The Holt well was an incomplete well that was drilled to 600 feet in depth on the Holt property in 2005-7, while Randy Holt still owned the drilling company that bears his name. On November 25, 2008 Council approved Resolution 1266 authorizing an agreement with Randy and Barbara Holt for on option to purchase a well. This agreement establishes the process through which the City and the Holts will negotiate the purchase of the well, if the well proves suitable for the City's use. It does NOT bind the City to buy the well if it is deemed unsuitable for such use.

ATTACHMENTS: Resolution 1285, Holt Well Boring Log, RH2 Contract Amendment No. 3, Exhibit A-Scope, Exhibit B-Estimate of Time and Expense

DISCUSSION: The subsequent testing will both prepare the City of Fife for the decision as to whether or not this well is suitable for purchase and use, but also improve its position to negotiate a more favorable long-term contract for purchase of water from Tacoma Public Utilities or an alternate purveyor.

FISCAL IMPACT: The proposal is for services to be provided on an hourly basis, with the fee limited to $37,000 unless further authorized.

ALTERNATIVE COURSES OF ACTION:
1. Approve Resolution 1285 as written.
2. Amend Resolution 1285, and then approve as amended
3. Decline to approve Resolution 1285

RECOMMENDATIONS: Approve Resolution 1285 as written.

SUGGESTED MOTION: Motion to approve Resolution 1285.

Russ Blount
Public Works Director

Approved for Agenda Steve Worthington
City Manager

Printed: February 3, 2009

RESOLUTION NO. 1285

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FIFE, PIERCE COUNTY, WASHINGTON AUTHORIZING THE CITY MANAGER TO SIGN CONTRACT AMENDMENT NO. 3 WITH RH2 ENGINEERING, INC. FOR ENGINEERING SERVICES ASSOCIATED WITH TESTING THE HOLT WELL

WHEREAS, the City of Fife has submitted a comprehensive water system plan update to Washington State Department of Health (WDOH) and that document describes the City's plan to provide for future water demand through development of one or more municipal wells; and

WHEREAS, the Council approved Resolution 1152 on October 9, 2007, authorizing the City Manager to execute a professional services agreement with RH2 Engineering, Inc. to provide engineering of municipal water supply wells and alternatives (the "Agreement"). The analysis determined that the Holt site on tax parcel 0420171064 was appropriate for further development and testing; and

WHEREAS, on September 9, 2008, the Council approved Resolution 1238, authorizing an amendment to the Agreement, to advance the well on the Holt property from 600 to 900 feet; and

WHEREAS, another amendment to the Agreement is necessary to authorize boring to a depth of 1006 feet, and to perform pump testing and collect water samples; now, therefore

BE IT RESOLVED that the Fife City Council hereby authorizes the City Manager to execute Contract Amendment No. 3 to the Professional Services Agreement for Groundwater Supply Development with RH2 Engineering, Inc. dated November 28, 2007, substantially in the form attached hereto.

ADOPTED by the City Council at an open public meeting held on the 10th day of February, 2009.

_____

Barry D. Johnson, Mayor

Attest:

_____

Steven Marcotte, City Clerk

Contract Amendment No. 3

Groundwater Supply Development

RH2 PPROJECT NUMBER FIF 507-140

In accordance with our Professional Services Agreement for Groundwater Supply Development dated November 28, 2007, this is an authorization to revise the project Scope of Work as described below. The work will be performed and invoiced using the terms and conditions listed in the Original Agreement.

Add the following items to the Scope of Work:

Contract with Randy Holt and Boart Longyear to complete drilling and pump test the Holt boring. Take water samples for water quality sampling at testing laboratory and evaluate the water quality of the existing aquifer.

Please see the attached **Exhibit A, Scope of Work** and **Exhibit B, Fee Estimate.**

The engineering fee authorization will increase by $37,000 for a total authorization amount of $267,000.

Please sign this authorization in the space provided below and mail or fax to RH2 Engineering, 12100 NE 195th Street, Suite 100, Bothell, WA 98011. FAX 425-398-2774.

RH2 Engineering, Inc.	City of Fife
Signature	Signature
Title	Title
Date	Date

EXHIBIT A
SCOPE OF WORK

CITY OF FIFE
GROUNDWATER SUPPLY DEVELOPMENT
CONTRACT AMENDMENT No. 3
HOLT WELL PUMP TESTING AND WATER QUALITY SAMPLES

Phase 1 – Completed - Drilling of an Exploration Well to 900 feet (Amendment No. 1)
Phase 2 – Completed - Drilling of an Exploration Well to 970 feet (Amendment No. 2)

Phase 3 – Current – Drilling of well from 970 to 1,006 feet. Perform pump test and collect water quality samples (Amendment No. 3)

Objective: The Holt boring has now been completed to a depth of 1,006 feet. It is estimated that the theoretical yield of the well is in the 1,000 gpm range. Well screens need to be sized, manufactured, and installed. Pump testing to determine the sustainable yield of the exiting aquifer must be completed. Water quality testing must be performed to determine the existing water quality conditions and determine water quality treatment requirements.

Approach:

A. Coordination with Randy Holt to have well screens sized and manufactured. Coordinate with Boart Longyear to have screens installed.

B. Coordination with Randy Holt and Boart Longyear to conduct pump testing of well to determine the characteristics and sustainable yield of the aquifer. Take water quality samples for testing.

C. Analyze pump and water quality testing results and prepare report documenting the findings and recommending how the City should proceed with its groundwater development effort based on the outcome of the results.

Product: Screens installed. Data and recommendations contained in a letter report regarding the results from the pumping and water quality testing of the well.

EXHIBIT B
ESTIMATE OF TIME AND EXPENSE

CITY OF FIFE
GROUNDWATER SUPPLY DEVELOPMENT
CONTRACT AMENDMENT No. 3
HOLT WELL PUMP TESTING AND WATER QUALITY SAMPLES

	Principal VII Principal Hrs	Cost	Professional VI Project Engineer Hrs	Cost	Administrative II Word Proc Hrs	Cost	
DIRECT PERSONNEL COST							
PHASE ONE - DEVELOPMENT OF AN EXPLORATION WELL							
Install and Develop Well	2	$352	6	$984		$0	$1,336
Test Well for Flow and Water Quality	2	$352	6	$984		$0	$1,336
Analysis and Reporting	8	$1,408	6	$984	2	$154	$2,546
SUBTOTAL PERSONNEL COSTS	12	$2,112	18	$2,952	2	$154	$5,218
NON-PERSONNEL COSTS							
Complete Drilling to 1007 feet (Boart Longyear)							$5,000
Install Screens and Develop Well (Boart Longyear)							$20,200
Pump Test and Water Quality Labs (Water Management)							$6,440
Faxes, Postage, Mileage, and Miscellaneous Expenses							$117
Printing							$25
SUBTOTAL NON-PERSONNEL EXPENSES							$31,782
TOTAL							$37,000

Holt Test Boring T 20 N, R 4E, Sec 17 SW 1/4, NE 1/4 1/4
47°13'21.95"N 122°19'23.28"W

Unit	Depth	Type	Symbol	Description	
80-160 Interbedded sand, silt, and peat	80	Silt	ML	brown, with peat	16 inch seal
	90	Sand	SP	dark gray, fine	
	110	Silt	ML	brown, with peat	
	150	Peat	PT	Dark brown	
205-260 Silt, Sand with Silt	207	Silt	ML	brown with organics	
	220	Silt	ML	brown with organics	
	230	Silt	ML	brown with organics	
	240	Silt	ML	brown with organics	
	250	Silt with Sand	ML	brown, with fine sand	
	259	Sand with Silt	SP-SM_	Olive brown, fine-med, fine gvl	
295-325 Silty Sand	300	Silty Sand	SM_	Olive brown	
	310	Silty Sand	SM_	Olive gray	
	320	Sand and Silt	SP/ML	Olive gray-brown, fine, interbedded silt	
373-433 Sand with Silt	375	Sand with Silt	SP-SM_	Dark gray, fine	
	378	Sand	SP	Dark gray, fine	
	381	Sand with Silt	SP-SM_	Dark gray, fine	
	384	Sand	SP	Dark gray, fine	
	390	Sand with Silt	SP-SM_	Dark gray, fine, with wood debris	
	392	Sand	SP-SW	Dark gray, fine-med, some coarse	
	393	Sand	SP	Dark gray, fine	
	396	Sand	SP	Dark gray, fine, with silt chunks	
	400	Sand with Silt	SP-SM_	Dark gray, fine	

Holt Test Boring T 20 N, R 4E, Sec 17 SW 1/4, NE 1/4 1/4
47°13'21.95"N 122°19'23.28"W

Unit	Depth	Type	Symbol	Description	
	410	Sand	SP	Dark gray, fine	
	415	Sand with Silt	SP-SM_	Dark gray, fine	
	420	Sand	SP	Dark gray, fine	
	425	Sand with Silt	SP-SM_	Dark gray, fine	
	430	Sand with Silt	SP-SM_	Dark gray, fine	
433-443 Silt	435	Silt	ML	Gray	
	440	Silt	ML	Gray	
458-475 Sand with Silt	460	Sand with Silt	SP-SM_	Dark gray, fine	
	470	Sand with Silt	SP-SM_	Dark gray, fine	
475-525 Sandy Silt	480	Sandy Silt	ML	Dark gray, fine sand	
	490	Sandy Silt	ML	Dark gray, fine sand	
	500	Sandy Silt	ML	Dark gray, fine sand	
	510	Sandy Silt	ML	Dark gray, fine sand	
	520	Sandy Silt	ML	Dark gray, fine sand	
525-800 Silt	530	Sandy Silt/Clay	ML-CL	Dark gray-brown, fine sand	
	540	Sandy Silt/Clay	ML-CL	Dark gray-brown, fine sand	
	550	Sandy Silt/Clay	ML-CL	Dark gray-brown, fine sand	
	560	Sandy Silt/Clay	ML-CL	Dark gray-brown, fine sand	
	570	Sandy Silt/Clay	ML-CL	Dark gray-brown, fine sand	
	580	Sandy Silt/Clay	ML-CL	Dark gray-brown, fine sand	
	590	Sandy Silt	ML	Olive gray, very fine sand	
	600	Sandy Silt	ML	Olive gray, very fine sand	
	610	Sandy Silt	ML	Olive gray, very fine sand	
	620	Sandy Silt	ML	Olive gray, very fine sand	
	630	Sandy Silt	ML	Olive gray, very fine sand	
	640	Sandy Silt	ML	Olive gray, very fine sand	
	650	Sandy Silt	ML	Olive gray, very fine sand	
	660	Sandy Silt	ML	Olive gray, very fine sand	
	670	Sandy Silt	ML	Olive gray, very fine sand	
	680	Sandy Silt	ML	Olive gray, very fine sand	
	690	Sandy Silt	ML	Olive gray, very fine sand	
	700	Sandy Silt	ML	Olive gray, very fine sand	12-inch casing
	710	Sandy Silt	ML	Olive gray, very fine sand	10 inch casing
	720	Sandy Silt	ML	Olive gray, very fine sand	
	730	Sandy Silt	ML	Olive gray, very fine sand	
	740	Sandy Silt	ML	Olive gray, very fine sand	
	750	Sandy Silt	ML	Olive gray, very fine sand	
	760	Sandy Silt	ML	Olive gray, very fine sand	
	770	Sandy Silt	ML	Olive gray, very fine sand	
	780	Sandy Silt	ML	Olive gray, very fine sand	
	790	Sandy Silt	ML	Olive gray, very fine sand	
	800	Sandy Silt	ML	Olive gray, very fine sand	
800-827 Silty Sand	810	Silty Sand	SM	Olive gray, fine sand	
	820	Silty Sand - Sand	SP-SM_	Olive gray, fine sand	
	825	Silty Sand - Sand	SP-SM_	Olive gray, fine to med sand	

Holt Test Boring T 20 N, R 4E, Sec 17 SW 1/4, NE 1/4 1/4
47°13'21.95"N 122°19'23.28"W

Unit	Depth	Type	Symbol	Description
850-900 Silty Sand, Sand	852	Silty Sand - Sand	SP-SM	Olive gray, fine to med sand, fining
	858	Silty Sand - Sand	SP-SM	Olive gray, fine sand, fining
	861	Silty Sand - Sand	SP-SM	Olive gray, fine sand, fining
	864	Silty Sand - Sand	SP-SM	Olive gray, fine sand, fining
	868	Silty Sand - Sand	SP-SM	Olive gray, fine to med sand, coarsening
	871	Silty Sand - Sand	SP-SM	Olive gray, fine to med sand
	875	Sand	SP	Olive gray, fine sand
	879	Sand	SP	Olive gray, fine sand
	883	Sand	SP	Olive gray, fine sand, tr gvl
	888	Silty Sand - Sand	SP-SM	Olive gray, fine sand, tr gvl
	890	Silty Sand - Sand	SP-SM	Olive gray, fine sand, tr gvl
	893	Silty Sand - Sand	SP-SM	Olive gray, fine sand, tr gvl
	897	Silty Sand - Sand	SP-SM	Olive gray, fine sand, tr gvl
	900	Silty Sand - Sand	SP-SM	Olive gray, fine sand, tr gvl