

RESOLUTION NO. 13-886

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
BLACK DIAMOND, KING COUNTY, WASHINGTON
AUTHORIZING THE MAYOR TO EXECUTE A
PROFESSIONAL SERVICES AGREEMENT WITH RH2
ENGINEERING, INC. FOR THE BLACK DIAMOND
SPRINGS PRELIMINARY ALTERNATIVES ANALYSIS**

WHEREAS, the City relies on natural springs for the City's water supply; and

WHEREAS, an upgrade to the springs is a project on the Water Supply Facilities Funding Agreement (WSFFA); and

WHEREAS, the City anticipates utilizing the expanded capacity of the Springs' water source to meet the near term water system source capacity needs for the near term growth needs of the City; and

WHEREAS, the WSFFA was authorized through Resolution 311 and amended through Resolution 334; and

WHEREAS, Task 3 of the WSFFA specifies predesign work of the Springs Reconstruction Project; and

WHEREAS, this is a preliminary analysis that is necessary to provide direction prior to implementing Task 3 of the WSFFA; and

WHEREAS, this project is listed in the City's approved Capital Improvement Plan 2013-2018 as W1 and W5; and

WHEREAS, RH2 Engineering, Inc. was selected as the City's on-call engineer for engineering services on the City's water utility; and


WHEREAS, City staff has been in communication with the WSFFA partners regarding this work;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. The Mayor is hereby authorized to execute a professional services agreement with RH2 Engineering, Inc. for the Black Diamond Springs Preliminary Alternatives Analysis.

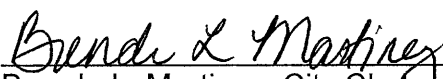
PASSED BY THE CITY COUNCIL OF THE CITY OF BLACK DIAMOND,
WASHINGTON, AT A REGULAR MEETING THEREOF, THIS 5TH DAY OF
SEPTEMBER, 2013.

CITY OF BLACK DIAMOND:



Rebecca Olness, Mayor

Attest:



Brenda L. Martinez, City Clerk

CITY OF BLACK DIAMOND PROFESSIONAL SERVICES AGREEMENT

This Professional Services Agreement (the or this "Agreement"), for reference purposes only, is dated Sept 6, 2013 and is entered into by and between

CITY OF BLACK DIAMOND, WASHINGTON (the "City")
Physical Address: 24301 Roberts Drive
Mailing Address: PO Box 599
Black Diamond, WA 98010
Contact: _____ Phone: 360-886-2560 Fax : 360-886-2592

and

RH2 ENGINEERING, INC. ("Consultant")
Physical Address: 22722 29th Drive SE, Suite 210
Bothell, WA 98021
Mailing Address: Same as above
Contact: Dan Ervin, P.E. Phone: 425-951-5400 Fax: 425-951-5401

Tax Id No.: 91-1108443

for professional services in connection with the following project:

Black Diamond Springs Preliminary Alternatives Analysis (the "Project").

TERMS AND CONDITIONS

1. Services by Consultant

1.1 Consultant shall perform the services described in the Scope of Work attached to this Agreement as Exhibit "A." The services performed by Consultant shall not exceed the Scope of Work nor shall the Consultant be entitled to a greater amount of compensation as that provided in this Agreement without the prior written authorization of the City.

1.2 The City may from time to time require changes or modifications in the Scope of Work. Such changes, including any decrease or increase in the amount of compensation, shall be agreed to by the parties and incorporated in written amendments to this Agreement.

1.3 Consultant represents and warrants that it, its staff to be assigned to the Project, and its subconsultants and their staff have the requisite training, skill, and experience necessary to provide the services required by this Agreement and are appropriately accredited and licensed by all applicable agencies and governmental entities. Services provided by Consultant and its subconsultants under this Agreement will be performed in a manner consistent with that degree

of care and skill ordinarily exercised by members of the same profession currently practicing in similar circumstances.

2. Schedule of Work

2.1 Consultant shall perform the services described in the Scope of Work in accordance with the Schedule attached to this contract as Exhibit "B."

2.2 Time is of the essence as to the work provided in the Scope of Work. Consultant will diligently proceed with the work and shall assure that it, and its subconsultants, will have adequate staffing at all times in order to complete the Scope of Work in a timely manner. If factors beyond Consultant's control that could not have been reasonably foreseen as of the date of this Agreement cause delay, then the parties will negotiate in good faith to determine whether an extension is appropriate. The Consultant shall provide the City with written notice of any delay, or potential delay, that may trigger the need for a time extension within 3 business days after the Consultant becomes aware of the delay or potential delay.

2.3 Consultant is authorized to proceed with services upon _____.

3. Compensation

LUMP SUM. Compensation for the services provided in the Scope of Work shall be a Lump Sum of \$_____.

TIME AND MATERIALS NOT TO EXCEED. Compensation for the services provided in the Scope of Work shall not exceed \$34,578 without the written authorization of the City and will be based on the list of billing rates and reimbursable expenses attached hereto as Exhibit "C."

TIME AND MATERIALS. Compensation for the services provided in the Scope of Work shall be on a time and materials basis according to the list of billing rates and reimbursable expenses attached hereto as Exhibit "C."

OTHER. _____

4. Payment

4.1 Consultant shall maintain time and expense records and provide them to the City monthly, along with monthly invoices, in a format acceptable to the City for work performed to the date of the invoice.

4.2 All invoices shall be paid by City warrant within sixty (60) days of actual receipt by the City of an invoice conforming in all respects to the terms of this Agreement.

4.3 Consultant shall keep cost records and accounts pertaining to this Agreement available for inspection by City representatives for three (3) years after final payment unless a longer period is required by a third-party agreement. Consultant shall make copies available to the City on request.

4.4 If the services rendered do not meet the requirements of the Agreement, Consultant will correct or modify the work to comply with the Agreement. The City may withhold payment for such work until the work meets the requirements of the Agreement.

5. Discrimination and Compliance with Laws

5.1 Consultant agrees not to discriminate against any employee or applicant for employment or any other person in the performance of this Agreement because of race, creed, color, national origin, marital status, sex, age, disability, or other circumstance prohibited by federal, state, or local law or ordinance, except for a bona fide occupational qualification.

5.2 Consultant and its subconsultants shall comply with all federal, state, and local laws and ordinances applicable to the work to be done under this Agreement.

5.3 Any violation of this Section 5 shall be a material breach of this Agreement and grounds for immediate cancellation, termination, or suspension of the Agreement by the City, in whole or in part, and may result in Consultant's ineligibility to conduct further work for the City.

6. Suspension and Termination of Agreement

6.1 The City reserves the right to terminate or suspend this Agreement at any time, without cause, by giving Consultant notice in writing ten (10) days prior to the termination or suspension date. In the event of termination, all finished or unfinished reports, or other material prepared by Consultant pursuant to this Agreement, shall be submitted to the City. In the event the City terminates this Agreement prior to completion without cause, Consultant may complete such analyses and records as may be necessary to place its files in order. Consultant shall be entitled to compensation for any satisfactory work completed on the Project prior to the date of suspension or termination.

6.2 Any notice from the City to Consultant regarding the suspension of this Agreement shall specify the anticipated period of suspension. Any reimbursement for expenses incurred due to the suspension shall be limited to Consultant's reasonable expenses and shall be subject to verification. Consultant shall resume performance of services under this Agreement without delay when the suspension period ends.

7. Standard of Care

7.1 Consultant represents and warrants that it has the requisite training, skill, and experience necessary to provide the services under this Agreement and is appropriately accredited and licensed by all applicable agencies and governmental entities. Services

Consultant provides under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing in similar circumstances.

8. Ownership of Work Product

8.1 Ownership of the originals of any reports, data, studies, surveys, charts, maps, drawings, specifications, figures, photographs, memoranda, and any other documents which are developed, compiled, or produced as a result of this Agreement, whether or not completed, shall be vested in the City and shall be submitted to the City upon termination of this Agreement. Any reuse of these materials by the City for projects or purposes other than those that fall within the scope of this Agreement and the Project to which it relates, without written concurrence by Consultant, will be at the sole risk of the City.

8.2 The City acknowledges Consultant's documents as instruments of professional service. Nevertheless, the documents prepared under this Agreement shall become the property of the City upon completion of the work. The City agrees to hold harmless and indemnify Consultant against all claims made against Consultant for damage or injury, including defense costs, arising out of the City's reuse of such documents beyond the use for which they were originally intended without the written authorization of Consultant.

8.3 Methodology, software, logic, and systems developed under this Agreement are the property of Consultant and the City, and may be used as either Consultant or the City see fit, including the right to revise or publish the same without limitation.

9. Indemnification/Hold Harmless

9.1 Consultant shall defend, indemnify, and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising directly or indirectly out of or resulting from the acts, errors, or omissions of Consultant or its subconsultants in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City. PROVIDED, HOWEVER, THAT IF ANY SUCH CLAIMS, INJURIES, DAMAGES, LOSSES OR SUITS RESULT FROM THE CONCURRENT NEGLIGENCE OF CONSULTANT AND THE CITY, IT IS EXPRESSLY AGREED THAT CONSULTANT'S OBLIGATIONS AND INDEMNITY UNDER THIS PARAGRAPH SHALL BE EFFECTIVE ONLY TO THE EXTENT OF CONSULTANT'S NEGLIGENCE.

10. Insurance

10.1 Consultant shall procure and maintain for the duration of the Agreement, and shall provide proof satisfactory to the City that such insurance is procured and maintained by each of its subconsultants, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by Consultant, its agents, representatives, or employees.

10.2 Consultant shall procure and maintain the following types and amounts of insurance:

a. Automobile Liability insurance covering all owned, non-owned, hired, and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01 or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage. This insurance shall have a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.

b. Commercial General Liability insurance shall be written on ISO occurrence form CG 00 01 or a substitute form providing equivalent liability coverage and shall cover liability arising from premises, operations, independent contractors, personal injury, and advertising injury. This insurance shall be written with limits no less than \$1,000,000 each occurrence, \$2,000,000 general aggregate.

c. Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

d. Professional Liability insurance appropriate to Consultant's profession, with limits no less than \$1,000,000 per claim and \$1,000,000 policy aggregate limit.

10.3 The Automobile Liability, Commercial General Liability, and Professional Liability insurance policies are to contain, or be endorsed to contain, the following provisions:

a. Consultant's insurance coverage shall be primary insurance vis-à-vis the City. Any insurance, self-insurance, or insurance pool coverage maintained by the City shall be excess over Consultant's insurance and shall not contribute with it.

b. Consultant's insurance shall be endorsed to state that coverage shall not be cancelled, except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City.

10.4 The City shall be named as an additional insured under Consultant's Automobile Liability and Commercial General Liability insurance policies with respect to the work to be performed for the City pursuant to this Agreement.

10.5 Insurance shall be placed with insurers with a current A.M. Best rating of not less than A:VII.

10.6 Declaration pages issued by the insurance carriers for the policies mentioned in this Section 10 showing such insurance to be in force shall be filed with the City not less than ten (10) days following both parties signing this Agreement and before commencement of the work. In addition, the City may request, in writing, a full copy from Consultant of any insurance policy Consultant must procure and maintain pursuant to this Agreement and Consultant must provide such copy to the City within ten (10) days of Consultant's receipt of the City's request. Any policy or required insurance written on a claims-made basis shall provide coverage as to all claims arising out of the services performed under this Agreement and for three (3) years following completion of the services to be performed. It shall be a material breach of this Agreement for Consultant to fail to procure and maintain the insurance required by this Section 10 or to provide the proof of such insurance to the City as provided for in this Agreement.

11. Assigning or Subcontracting

11.1 Consultant shall not assign, transfer, subcontract, or encumber any rights, duties, or interests accruing from this Agreement without the express prior written consent of the City, which consent may be withheld at the sole discretion of the City.

12. Independent Contractor

12.1 Consultant and its subconsultants are, and shall be at all times during the term of this Agreement, independent contractors.

13. Notice

13.1 All notices required by this Agreement shall be considered properly delivered when personally delivered, when received by facsimile, or on the third day following mailing, postage prepaid, certified mail, return receipt requested to:

City: City Administrator
City of Black Diamond
P.O. Box 599
Black Diamond, WA 98010
Fax: 360-886-2592

With a copy to: **Chris Bacha**
Kenyon Disend, PLLC
11 Front Street South
Issaquah, WA 98027
Fax: 425-392-7071

Consultant: Dan Ervin, P.E.
RH2 Engineering, Inc.
22722 29th Drive, Suite 210
Bothell, WA 98021
Fax: 425-951-5401

14. Disputes

14.1 Any action for claims arising out of or relating to this Agreement shall be governed by the laws of the State of Washington. Venue shall be in King County Superior Court, Kent, Washington.

15. Attorney Fees

15.1 In any suit or action instituted to enforce any right granted in this Agreement, the substantially prevailing party shall be entitled to recover its costs, disbursements, and reasonable attorney fees from the other party.

16. General Administration and Management on Behalf of the City

16.1 The City Administrator for the City, or his designee, shall review and approve Consultant's invoices to the City under this Agreement and shall have primary responsibility for overseeing and approving work or services to be performed by Consultant. No third party, including the project applicant, shall have any direct control or influence over the services performed under this Contract.

17. Extent of Agreement/Modification

17.1 This Agreement, together with any attachments or addenda, represents the entire and integrated Agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may only be amended, modified, or added to by written instrument properly signed by both parties. The parties acknowledge the general contract rule that a clause in a contract, such as this one, prohibiting oral modifications is itself generally subject to oral modification. However, in order to ensure certainty as to the terms and conditions of this Agreement, the parties waive this general contract rule.

18. Conflict of Interest; Non-Collusion

18.1 No officer, employee or agent of the City, nor any member of the immediate family of any such officer, employee or agent, shall have any personal financial interest, direct or indirect, in this Contract, either in fact or in appearance. The Consultant shall comply with all federal, state, and City conflict of interest laws, statutes and regulations. The Consultant represents that the Consultant presently has no interest and shall not acquire any interest, direct or indirect, in the project to which this Contract pertains which would conflict in any manner or degree with the performance of the Consultant's services and obligations hereunder. The contractor's officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from the project applicant or any affiliate or agent of the project applicant.

18.2 The Consultant warrants and represents that the Consultant has not, nor has any other member, employee, representative, agent or officer of the Consultant, entered into or offered to enter into any combination, collusion or agreement with any person or entity to receive or pay, and that he has not received or paid, any sum of money or other consideration for the execution of this Contract other than the consideration offered pursuant to the terms and conditions hereof.

CITY OF BLACK DIAMOND

By: Rebecca Olness
Rebecca Olness

Its: Mayor

Date: 9-6-13

CONSULTANT

By: Daniel R. Ervin
Printed Name: Daniel R. Ervin, P.E.

Its: Vice President

Date: August 5, 2013

Attest:

By: Brenda L. Martinez
Brenda L. Martinez
City Clerk

Exhibit A
Scope of Work – Phase One
City of Black Diamond
Black Diamond Springs
Preliminary Alternatives Analysis
August 2013

Background

The City of Black Diamond (City) relies on natural springs on the south side of the Green River for a portion of its municipal water supply. The spring source includes capture and impoundment facilities, transmission mains from the springs to a hydraulically-powered pump, a pressurized pipe crossing the Green River on an early 1900s cable suspension bridge, an electrically powered pump station, and several miles of transmission main to deliver the water into the City distribution system.

Some of the existing facilities are old, most notably the hydraulically-powered pump and the river crossing. These facilities are near the end of their useful service life. Some facilities are difficult to maintain. Some facilities are susceptible to damage or failure from slope instability. The structural integrity of the bridge and the risks of flood damage to the bridge will need to be evaluated.

A number of studies evaluating site conditions and improvement alternatives have been completed recently and will be used to the extent possible. Flow measurement equipment was installed in March 2013, and flow monitoring will continue through the spring, summer, and fall of 2013 to estimate individual spring flow rates. This flow data will be evaluated and used for developing design criteria for the proposed spring improvement alternative.

Purpose

The purpose of the Springs Reconstruction Project is to repair, replace and reconstruct the City's spring water source to provide for full use of the City's water right in a long-term, efficient, and reliable way that meets all of the Washington State Department of Health (DOH) requirements. The purpose of this scope, titled Preliminary Alternatives Analysis, is to determine a cost-effective and reasonable solution to meeting the main purpose of the overall project. More specifically, the Preliminary Alternatives Analysis will compare the cost, operations, and risks of the 1) Springs Reconstruction and 2) North Bank well. This project is to develop planning-level costs based on conceptual improvements required to improve reliability, better utilize the existing water rights, improve efficiency, reduce operating costs, and improve source quality protection. This project analysis is compatible with the goals and objectives of the Water Supply and Facilities Funding Agreement (WSFFA). This a preliminary step to Task 3 of the WSFFA (titled "Spring Water source Collection and Transmission System Improvements Preliminary Design") to provide information and an analysis of water source alternatives for upfront decision making going into the Task 3 design effort.

Engineering Outline

The engineering phase is summarized as follows:

1. Data Gathering
 - a. Pace Study (complete)
 - b. Nestle Geotech study (received)

- c. Flow monitoring by RH2 Engineering, Inc., (RH2) (in process)
2. Preliminary Alternatives Analysis (current scope pending)
3. Preliminary Design and Environmental (30-percent), (WSFFA Task 3)
4. Final Design and Bid Documents, (WSFFA Task 6)

Framework of Source Alternative Development

The concept and scope of each water source alternative to be explored will include the following items:

SPRINGS

1. **Spring development**, protection, and collection systems required to capture and constrain the spring sources (including decisions regarding which sources to capture) to minimize the possibility of contamination (either natural or sabotage) and reduce the likelihood of the springs being reclassified by DOH as Ground Water Under the Influence of Surface Water.
2. **Conveyance systems** required to deliver captured spring water to the north side of the river considering slope stability, pipeline access, construction and maintenance costs, flooding hazards, and possible joint-use for power generation.
3. **New or upgraded facilities** which make effective use of the different maximum instantaneous (Qi) and maximum annual (Qa) water right allocations. The City's primary municipal water supply, Black Diamond Springs 1, 2, and 3, is located on a slope above the south side of the Green River. The City holds Surface Water Certificate S1-00506C, which authorizes the diversion of 8 cubic feet per second (cfs) and 551 acre-feet per year (AFY) for municipal use. The City also holds Surface Water Certificate 3580, which authorizes the diversion of 2.93 cfs from Black Diamond Springs for hydropower. This evaluation will help in determining a practical useable instantaneous water right that is needed for the City water system, taking into account using the water source for summer peaking, not exceeding the hydraulic capacity of the existing 12-inch transmission main that is already installed and other factors related to the work. This assumption may be revised based on flow monitoring data to be acquired in 2013. The facility improvements need to consider the following goals.
 - Provide pumping capacity for the full use of the water right for year-round supply for the City.
 - Once the full use of the water right has been reached, further growth in the City will be supplied by Tacoma Water.
 - As the City continues to grow, spring water may be transitioned to a three (3) month summer supply, while fully utilizing the City's spring water annual water right.
 - Consider pumping water during lower power price periods and using the storage tanks for the daily peaks.
 - Consider the full use of the existing pumps until they reach capacity limits, unless it can be shown that pump replacement with this project is cost effective.
4. **New power generation facilities** construction that makes effective use of the City's water right for power with a long-range plan and compatibility for full use of the excess spring water for power generation under a new water right.

5. Pumping and treatment (chlorination) of potable spring water to the transmission main with optimum use of the existing facilities. The chlorination facility will need to be replaced with a system with enough capacity for full water right use during a three (3) month period.

NORTH BANK WELL

1. New well feasibility north of the Green River drawing water from the coal mines below.
2. Analyze the timing, feasibility, and risks of changing the point of withdrawal of the City's water right.
3. New piping to the pump house.
4. The goals of items 3, 4, and 5 of SPRINGS still apply.
5. Costs of bridge removal, if applicable.
6. A new well head protection plan.

Alternative Evaluation/Analysis

Task 1 – Capital, Risk, and Life-cycle Cost Evaluation

Objective: Identify the capital and operational cost impacts (including life-cycle costs) of two(2) water resource alternatives, including: 1) replacing existing equipment and processes at the springs with new and similar systems and processes to make full use of the City's water right; and 2) move and develop a new point of withdrawal on the north side of the Green River and constructing new treatment and pumping facilities and processes to make full use of the City's water right.

The above options will be compared and include a risk analysis of the City water supply alternatives assigning probabilities of loss or failure of major components from major events to the cost of replacement of those components. The risk analysis will also include the risk of losing a portion of the City's water right and assigning a value to the lost portion of the water right.

Additionally, RH2 will analyze the incremental cost of reconstructing the springs system to produce high enough flows to fully use the City's full water right during June through September as compared to normal system demand flow curves with the City of Tacoma's current pricing structure

Approach:

- 1.1 Review available studies and current flow data and conduct field reconnaissance of the springs, access roads, and collection/conveyance pipe alignment. Take measurements on exposed existing infrastructure.
- 1.2 Perform geotechnical investigation of on-site test pits. RH2 will help identify possible test pit locations. The City will dig test pits and RH2 will inspect test pits and provide a summary of the findings.
- 1.3 Identify the planning-level capital facility costs necessary for each alternative, including design, permitting, construction, and soft costs.
- 1.4 Review the City's spring operational cost analysis compared to the cost of purchasing water from the City of Tacoma at a flat usage and at a four (4)-month seasonal supply. This analysis will take into account the risk/vulnerability in the comparison of the options.

City of Black Diamond
 Black Diamond Springs Preliminary Alternative Analysis

Exhibit A
 Scope of Work

- 1.5 Identify the likely operational costs and impacts of relocating the point of withdrawal from the south side of the river (spring source) to the north side (groundwater source). Identify the potential collateral impacts of the change, including the potential reduction in water right Qi to match the Qa rate.
- 1.6 Determine the sizing, material, and planning-level cost for collection pipeline to gather the needed domestic water supply to a single point and for a domestic water transmission main from a single point of collection to the pump station.
- 1.7 Determine the existing conditions, structural load bearing capacity, and improvements, if any, that would be required to protect and extend the life of the existing bridge structure and support additional loads.
- 1.8 Compare the capital costs developed in subtask 1.3 with the various operating costs developed in subtasks and develop summaries of the life-cycle costs (capital and operating) at 10-year, 20-year, and 50-year thresholds for each of the supply alternatives.
- 1.9 Summarize and recommend an alternative in memo format based on the cost analysis (note: RH2 is aware of the legacy nature of the independent supply source and recognizes the intangible value of the existing supply source; however, this Scope of Work will not attempt to value that legacy component).
- 1.10 Deliver twelve (12) copies of the memo to City staff for review and comment. Meet with staff and make presentations as requested to other city departments and stakeholders.

Assumptions: *Capital and life cycle costs will be based upon past RH2 construction bids and experience and City of Tacoma supply fees and costs. This task will have limited hours, provide a brief overview, and conceptual cost analysis. RH2 is entitled to rely on the accuracy and completeness of any data, information or materials provided by the City or by third parties in relation to this work.*

Provided by the City:

- City of Tacoma wholesale rates.
- Construction records/reports of existing transmission main and other facilities at the spring site.
- City staff knowledge of construction or maintenance of existing transmission main and other facilities.
- Provide access to spring property for site visits. City will provide RH2 with two (2) sets of keys.
- Documentation of spring discharge measurements taken in the past.
- City-held geologic/hydrogeologic, site condition, facility reports, or any other documents related to the springs, the spring sites, or the spring facilities.
- Provide access to property not owned by the City, if necessary.
- Back-hoe and digging of the test pits
- Existing City rates and existing yearly demand patterns and amounts

RH2 Deliverables:

- Summary memo, electronic copy of analysis and memo, and copies of presentation materials.

EXHIBIT B
 City of Black Diamond
 Phase 1
 Black Diamond Springs Preliminary Alternatives Analysis
 Estimate of Time and Expense

Description Classification		Total Hours	Total Labor	Total Expense	Total Cost
Task 1	Capital, Risk, and Life-cycle Cost Evaluation				
1.1	Review available studies and conduct field reconnaissance	16	\$ 2,706	\$ 178	\$ 2,886
1.2	Perform geotechnical investigation	31	\$ 5,254	\$ 131	\$ 5,385
1.3	Identify planning-level capital facility costs	22	\$ 4,046	\$ 101	\$ 4,147
1.4	Review City's operating costs analysis and compare to cost of purchasing water from City of Tacoma	20	\$ 3,638	\$ 91	\$ 3,729
1.5	Identify operational impacts and costs of relocating point of withdrawal	14	\$ 2,580	\$ 65	\$ 2,645
1.6	Determine probable alignment for collection piping	26	\$ 4,520	\$ 113	\$ 4,633
1.7	Existing bridge evaluation	14	\$ 2,348	\$ 104	\$ 2,452
1.8	Compare capital costs	20	\$ 3,638	\$ 91	\$ 3,729
1.9	Summarize and recommend an alternative	24	\$ 3,982	\$ 145	\$ 4,127
1.10	Deliver copies to City staff and make presentation	4	\$ 770	\$ 76	\$ 846
Subtotal		191	\$ 33,484	\$ 1,094	\$ 34,578

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

2013 HOURLY RATES

CLASSIFICATION		RATE	CLASSIFICATION		RATE
Professional	IX	\$204.00	Technician	IV	\$130.00
Professional	VIII	\$204.00	Technician	III	\$122.00
Professional	VII	\$196.00	Technician	II	\$90.00
			Technician	I	\$85.00
Professional	VI	\$181.00			
Professional	V	\$172.00	Administrative	V	\$121.00
Professional	IV	\$162.00	Administrative	IV	\$100.00
			Administrative	III	\$86.00
Professional	III	\$152.00	Administrative	II	\$70.00
Professional	II	\$140.00	Administrative	I	\$58.00
Professional	I	\$128.00			

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-milage 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.