

January 10, 1990
2022H/HK/rr

INTRODUCED BY: Audrey Gruger

PROPOSED NO.: 90 - 11

MOTION NO. **7812**

A MOTION authorizing the Executive to enter into an interlocal agreement with the Woodinville Water District to construct a deep monitoring well as part of the Ground Water Management Plan for the Redmond-Bear Creek Valley.

WHEREAS, the Department of Ecology has instituted regulations under Chapter 173-100 WAC that provide for a process for long-term ground water supply protection, and

WHEREAS, the Department of Ecology has identified the Redmond-Bear Creek Valley as a Ground Water Management Area and placed this area on the Department of Ecology's General Schedule, and

WHEREAS, the Ground Water Management Plan development may require the execution of interlocal agreements with participating agencies, and

WHEREAS, an interlocal agreement is required between King County and Woodinville Water District to cover the district's financial participation in the Ground Water Management process, and the interlocal agreement states the procedures for the transfer of funds from Woodinville Water District to King County for the district's share of the costs as identified in the attached Scope of Work, and

WHEREAS, the health department staff have reviewed the Scope of Work and recommended approval:

NOW, THEREFORE, BE IT MOVED by the Council of King County:

The executive is hereby authorized to enter into an interlocal agreement (substantially in the form attached) with the Woodinville Water District for the purpose of constructing a

1 the Redmond-Bear Creek Valley Ground Water Management Plan and to
2 cover the procedures by which the District transfers to King
3 County the necessary funds to cover the costs as identified in
4 the attached Scope of Work.

5 PASSED this 29th day of January, 1990.

6 KING COUNTY COUNCIL
7 KING COUNTY, WASHINGTON

8 Lois North
9 Chairman

10 ATTEST:

11 J. Crawford II
12 Clerk of the Council
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INTERLOCAL AGREEMENT BETWEEN KING COUNTY AND
WOODINVILLE WATER DISTRICT
REGARDING THE CONSTRUCTION AND TESTING OF A MONITORING WELL
AS PART OF THE GROUND WATER MANAGEMENT PLAN DEVELOPMENT
FOR THE REDMOND-BEAR CREEK VALLEY GROUND WATER MANAGEMENT AREA

King County and Woodinville Water District, each being a public agency of the State of Washington as that term is defined in Chapter 39.34 RCW, do hereby agree to the terms and conditions set forth in this Interlocal Agreement.

I. Parties to the Agreement

The parties to the agreement and the authorizations to enter into this agreement by their respective governing bodies are as follows:

- A. Woodinville Water District ("the District"), a Water District formed under title 57 RCW per resolution of Board of Commissioners #2649 dated the 6th day of November, 1989.
- B. King County by and for the Seattle-King County Department of Public Health ("King County") a political subdivision of the State of Washington, per King County Council Motion # _____ dated the ____ day of _____, 1989.

II. Recitals

- A. The Redmond Bear Creek Valley Ground Water Management Program ("GWMP") is a program pursuant to WAC 173-100 "Ground Water Management Areas and Programs" administered by the Washington Department of Ecology (Ecology) to insure that the Redmond Bear Creek Valley Aquifer will provide optimum supplies of high quality ground water for future generations.
- B. King County has been designated the "lead agency" for the Redmond Bear Creek Valley GWMP and is responsible for the coordination and completion of the activities necessary for the development of a GWMP as provided for in Chapter 173-100 WAC.
- C. The District is a local government as defined in WAC 173-100-040(12) affected by the GWMP and grant application pursuant to WAC 173-100-100 and is a member of the Ground Water Advisory Committee assisting in the development of the GWMP.
 - 1. To facilitate technical understanding of the ground water resource both in quantity of water available, and the quality of that water;
 - 2. To make the public aware of the need to protect the ground water resource from contamination and overuse and to support the public and private actions required to protect the resource;
 - 3. To require public agencies to work cooperatively to fulfill their responsibilities to protect the ground water resource; and

to assist decision makers in formulating public policy to achieve this goal of protecting our ground water resource.

4. To determine that existing and proposed local, State and regional land use and water use plans, policies and regulations will be effective in protecting the ground water resource.
- E. The purpose of this agreement between the District and King County is to provide for a method of billing to and reimbursement by the District to King County for incurred expenses as delineated in the Appendix A technical specifications and cost estimate for construction and testing of a monitoring well on Woodinville Water District property in the north end of the Redmond Bear Creek Valley Ground Water Management Area. The District will reimburse King County up to the agreed maximum total by the District in the estimate attached in Appendix A.

III. Description of Work

The County will conduct project activities associated with the GWMP and test well as set forth in Appendix A within four months of the date of the signing of this agreement.

IV. Scope of Work

King County shall provide services and comply with the requirements set forth in Appendix A attached hereto, including but not limited to the drilling by King County of an approximately 500' test well on the Woodinville Water District property, providing for geophysical testing of the cased hole, water quality testing and analysis, and aquifer pump testing if feasible.

V. Obligations of Parties

- A. King County is designated and accepts the lead responsibility for the coordination and completion of activities necessary for the development of a ground water management program pursuant to WAC 173-100-040(11) and WAC 173-100-080 including completion of the various activities referenced in Exhibit A.
- B. The District shall be responsible for the payment of their costs identified in Appendix A attached hereto to King County for the services provided in Appendix A. The District shall make available a site on its property at 17238 Woodinville Duvall Road in Woodinville, for drilling of this test well. The District shall allow access for initial construction, and testing of this well as per Appendix A. The District shall own this well; however, access will be allowed to King County and Ecology for monitoring of this well for water level and water quality testing as may be necessary during the Ground Water Management Plan development. The District will also draft and sign with King County/Ecology a long-term access agreement (10 years) acceptable to King County and Ecology for monitoring of the water level and water quality of water from this well as provided in the Guidelines for Data Collection from wells

used in the Ground Water Management Area program by Ecology dated May 1989 unless otherwise waived by Ecology prior to Ground Water Management Plan completion.

The access agreement may provide, at the election of the District, for the termination of any right of access in the event that the District sells the property on which the well is located. This termination will be without any charge to the District in the event that the District elects to sell the property on which the well is located, after or in connection with the denial of a conditional use permit for any expansion or relocation of any facilities of the district on the property. In the event of the sale under other circumstances, or in the event that the District terminates the right of access for any reason other than a sale, Ecology (and to the extent King County reimburses Ecology) may, in its discussion recover all or a portion of the money it furnished pursuant to Grantee # WFG88033 with King County toward the construction of this monitoring well; provided that the charges or compensation which Ecology, or King County, shall be limited to \$10,695. Any such charge or compensation shall be paid by the District within 30 days following the receipt of request by Ecology or King County for payment. This request can be made 30 days after receiving notice by the District that access rights to the well are terminated, and Ecology or King County requests reimbursement.

The District shall allow reasonable access to Ecology, the Washington State Auditor or any of these duly authorized representatives for the purpose of audit and examination of any books, documents, papers and records that are pertinent to the ground water management and the specific scope of work contained in Appendix A, to the extent required by law.

VI. Duration

- A. The effective date of this agreement shall be that date when it has been filed with the King County Records and Election and with the Secretary of the State of Washington as required by RCW 39.34.040 after having been signed by both parties.
- B. The agreement shall remain in full force and effect until all of the tasks related to Exhibit A and Obligations of Parties, Section V, have been completed, unless the agreement is terminated in whole or part by agreement of both parties, or pursuant to Section XVI herein.

VII. Method of Payment

- A. Compensation: The District shall reimburse King County for satisfactory completion of the services as specified in Appendix A and in an amount not to exceed a total of twenty thousand two hundred dollars (\$20,200) in case as set forth in Appendix A, except where King County and the District agree to an interlocal amendment with a revised dollar amount.

B. Method of Payment: The County shall submit to the District an invoice for its portion of the services rendered pursuant to Appendix A. The District shall reimburse King County within thirty (30) days of the receipt of such invoice up to the maximum amount agreed to by the District set forth in Appendix A unless the District and King County agree otherwise.

VIII. Professional Responsibility

King County shall be responsible for the professional quality, technical accuracy and the coordination of all services it furnishes under this contract as the lead agency.

IX. Kickbacks

King County and the District are prohibited from inducing by any means any person employed in the construction, completion or repair of public work to give up any part of the compensation to which he/she is otherwise entitled by Department of Labor regulations.

X. Conversions

King County and the District shall not, at any time, when Ecology or King County is entitled to access to the property on which the well is located, convert the monitoring well developed pursuant to this agreement to uses other than those for which Ecology assistance was originally approved without prior written approval of Ecology. Such approval may be conditioned upon payment to Ecology of that proportion of the proceeds of sale, lease, or other conversion, or encumbrance which monies Ecology granted for preparation of a ground water management plan bore to the original acquisition, purchase, or construction cost.

This prohibition of conversions shall not be interpreted to limited any right to terminate access under Section V.B. of this agreement, and the termination of access or any rights of Ecology or King County under this agreement or the destruction or abandonment of this well after the termination of access under V.B. shall not constitute a conversion subject to the compensation conditions as stated in Section V.B.

XI. Compliance with Applicable Laws and Regulations

King County and the District shall comply fully with all Federal, State and local laws, orders, regulations and permits applicable to the work to be performed under this agreement, including laws related to Discrimination, Labor, Job Safety, Industrial Insurance, and specifically Chapters 173-100 WAC Ground Water Management Areas and Programs and Chapter 90.44 RCW, Regulations of Public Ground Waters. King County shall secure the necessary permits required in order to complete the Scope of Work.

XII. Audits and Inspections

A. All records and invoices for all work performed under this agreement and any equipment purchased shall be made available to Ecology and

to any authorized State and Federal representative and King County and the District for inspection at any time during the course of this agreement and for at least three years thereafter.

XIII. Conflict of Interest

No officer, member, agent, or employee of either party to this agreement who exercises any function or responsibility in the review, approval, or carrying out of this agreement, shall participate in any decision which affects his/her personal interest or the interest of any corporation, partnership, or association in which he/she is, directly or indirectly interested; nor shall he/she have any personal or pecuniary interest, direct or indirect, in this agreement or the proceeds thereof.

XIV. Waiver

It is agreed by both parties that forgiveness of the non-performance of any provision of this agreement does not constitute a waiver of the provisions of this agreement. Waiver of a breach of any provision of this agreement is not a waiver of any subsequent breach and will not be construed as a modification of the terms of this agreement unless stated in writing and mutually agreed upon by both parties.

XV. Amendments

This agreement may be amended, clarified or extended only by written agreement of both parties hereto.

XVI. Termination

This agreement may be terminated by King County if it is reasonably evident that the cost of completing the test well will significantly exceed the cost estimates for the Scope of Work in Appendix A mutually developed in conjunction with the Woodinville Water District, and arrangements for mutually sharing these increased costs cannot be resolved with the Woodinville Water District.

The District may terminate this agreement after December 31, 1990 under the same conditions under which it may terminate the right of access to Ecology and King County under Section V subject to the compensation conditions as stated in that Section and the long term access agreement.

XVII. All Writings Contained Herein

This agreement and Appendix A contain the entire understanding between the parties, and there are no other understandings or representatives set forth or incorporated by reference herein.

XVIII. Filing

This agreement shall be filed with the King County Records and Elections and the Secretary of State.

THE COUNTY OF KING BY AND FOR,
SEATTLE-KING COUNTY DEPARTMENT
OF PUBLIC HEALTH ("King County")

WOODINVILLE WATER DISTRICT
("District")

By _____
King County Executive

By _____

Title _____

Date: _____

Date: _____

Attest: _____ Director
Department of Executive Administration

Approved as to form:

KING COUNTY PROSECUTING ATTORNEY

By _____

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APPENDIX A

TECHNICAL SPECIFICATIONS AND COST ESTIMATE
FOR CONSTRUCTION AND TESTING OF
MONITORING WELL AT
WOODINVILLE WATER DISTRICT

October 27, 1989

Prepared by:

Sweet-Edwards/EMCON, Inc.
18912 North Creek Parkway, Suite 210
Bothell, Washington 98011

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Section 1

GENERAL PROJECT INFORMATION

1.1 OBJECTIVE

Collection of stratigraphic and hydrologic data for characterization of subsurface conditions and evaluation of ground water resource potential as part of the Redmond-Bear Creek ground water management study.

1.2 SCOPE OF WORK

The scope of work for this project shall include the following:

- o drilling and sampling of one approximately 500-foot test hole
- o geophysical testing of cased hole
- o aquifer pump test if feasible
- o installation of up to two 2-inch PVC monitoring wells
- o water quality testing and analysis

All drilling, aquifer testing, and well construction will be performed by a licensed well driller. Geophysical testing will be performed by Washington State University personnel. Drilling supervision will be provided by a trained geologist under the direction of Sweet-Edwards/EMCON.

1.3 LOCATION

The monitoring well shall be located on property owned by the Woodinville Water and Sewer District near the Woodinville-Duval Road in Woodinville, Washington.

Section 2
CONTRACTOR REQUIREMENTS

2.1 WORK INCLUDED

Unless specifically excepted in the accompanying Project Specifications, the work for this project shall include all equipment, labor and materials required for the drilling, casing, pump testing, and construction of one monitoring well in accordance with the accompanying project specifications. The Contractor shall provide all tools, derricks, engines and other machinery and appliances of whatever description necessary for the expeditious construction and completion of the well in a workmanlike manner. All wells shall be constructed in accordance with the Washington Administrative Code 173-160 (WAC), Minimum Standards for Construction and Maintenance of Water Wells.

2.2 WORKING DAY AND DOWN TIME

The Contractor will notify the Geologist of his working schedule and hours of operation prior to beginning work on well construction. The Contractor will notify the Geologist 48 hours in advance of the time he begins any work activity and any change in hours of operation. Unless the Geologist instructs the Contractor otherwise, the Contractor will not perform any work activity, other than maintenance of his equipment, without the presence of the Geologist or his representative. In the event of equipment failure or halting of work activity (down time) in excess of two hours, the Contractor will immediately notify the Geologist as to the time he anticipates resuming work activity.

2.3 WELL DRILLING, GENERAL

The well shall be drilled by a method approved by the Geologist. The drilling shall be done with a well maintained drilling unit, approved by the Geologist. No unnecessary delays or work stoppages due to negligence or faulty operations on the part of the Contractor will be tolerated. The Contractor shall be held responsible and payment may be withheld for damage done to the well by delays, negligence or faulty operation. The equipment shall be of the proper type and shall be in good condition so that the work can be done without any interruption. The Contractor is cautioned to keep operation noises at a minimum. This shall include, but not be limited to, the installation of an efficient muffler on all engine exhausts. The drilled hole shall be of such size as required to accommodate the diameter casing as specified. Drilling fluids other than air and water will not be permitted. Contractor will discuss the procedures he will use with the Geologist for approval.

Drilling methods requiring the driving of casing will use a pneumatic tool designed to drive casing through unconsolidated formation. When permanent well casing is driven, a standard drive shoe shall be welded or threaded on the lower end of the string of casing. The shoe shall have beveled and tempered cutting edge of metal forged, cast or fabricated for this purpose. It shall be the Contractor's responsibility to utilize the equipment he deems suitable to insure that the well will maintain alignment, plumbness, and roundness during installation.

Casting lengths shall be joined watertight by a method appropriate to the material used, as selected by the Contractor and approved by the Geologist, so that the resulting joint shall have the same structural integrity as the casing itself.

After the drilled hole has been completed and the Geologist has specified the screen location, the Contractor will install well screen and casing.

Upon completion of drilling and installation of the well screen and gravel packs, the Contractor will install a grout well seal in the upper 18 feet of the annular space between the casing and the drilled hole, in conformance with Washington Administrative Code (WAC) 173-160-100. If necessary, the Contractor will install a conductor casing to insure proper placement of the well seal.

At all times during the progress of the work, the Contractor will protect the well in such manner as effectively to prevent either tampering with the well, or the entrance of foreign matter into it. Upon completion of the well, the Contractor will set a welded steel protective cap on the well.

In the event that the Contractor shall fail to advance the boring to the depth as required by the Geologist, or should he abandon the boring because of loss of tools or for any other cause, he shall receive no payment for the boring and will abandon the boring in accordance with the procedures specified by the State of Washington WAC 173-160-415. Salvaged material furnished by the Contractor shall remain his property. If abandonment of the boring is required, no separate payment will be made to the Contractor for this work.

2.4 FIELD MEASUREMENTS AND SAMPLES

All measurements for well depths shall be taken from the existing surface of the ground at the well site to the lowest point of the open hole. The Contractor shall verify the measurements of the

holes with the Geologist. The Contractor is responsible for determining subsurface depths during drilling to the nearest 0.5 foot. In addition the Contractor shall clearly mark his equipment so that the Geologist may at any time determine the depth to which the drilling tool is extend.

The Contractor will collect a complete set of 1-pint samples representative of each stratum or 5-foot interval (whichever is the lesser) penetrated, or such other samples as may be specified in the Project Specifications. It shall be the Contractor's responsibility to operate his drilling equipment to permit the collection of said samples.

2.5 RECORDS

During drilling the Contractor shall keep an accurate log of the well in accordance with WAC 173-160. In addition to the other logs and records specified hereunder, the Owner's geologist shall maintain a daily report from the beginning of the work to the final acceptance, containing a detailed description of the work done during each day including such items of work accomplished as depth drilled, nature of materials encountered, casing set, delays, visitors and such other pertinent data. The Contractor or his assigned representative will review and sign the geologist's daily report. All payments to the Contractor will be based on confirmation by information recorded on the geologists's daily record.

Section 3
GEOPHYSICAL TESTING

Upon completion of the test boring, geophysical testing of the cased bore-hole will be completed to aid in lithologic interpretation and placement of the well screen(s). The following bore-hole geophysical logging methods will be used:

- o resistivity
- o neutron density
- o natural gamma

All the geophysical testing will be performed by personnel from Washington State University.

Section 4
AQUIFER TESTING

Depending on geologic conditions, a 24-hour aquifer pump test may be performed on a selected aquifer zone, if feasible, to obtain estimates of aquifer parameters, (transmissivity, hydraulic conductivity and storativity). After completion of the drilling and geophysical testing the aquifer zone to be tested will be exposed using a casing perforator tool. The aquifer zone will then be developed to remove fines and improve hydraulic properties near the borehole.

4.1 CONTRACTOR REQUIREMENTS

Except as otherwise provided, the Contractor shall furnish all labor, motive power, lubricating oil, and other necessary materials, equipment, labor, and supplies required and shall operate the pumping unit at such rates of discharge and for such periods of time as herein described. Accidental interruptions may, if so agreed upon between the Contractor and the Engineer, be compensated for by correspondingly extending the time of the completion of the test run. After the completion of the final test, the Contractor shall remove by bailing, sand pumping, or other methods any sand, stones, or other foreign material that may have become deposited in the well.

4.2 TEST PUMP AND AUXILIARY EQUIPMENT

The Contractor shall furnish and install all necessary pumping equipment, variable speed plant, fuel and appurtenances capable of pumping to the required point of discharge a maximum of at least 200 gpm at ground surface with the pumping level 200 feet below ground, but with satisfactory throttling devices, including but not

limited to gate valves, so that the discharge may be reduced to 50 gpm.

The pumping unit shall be complete with prime mover of ample power, controls, and appurtenances and shall be capable of being operated without interruption for a period of 24 hours.

The Contractor shall furnish all necessary watertight discharge piping for the pumping unit, which shall be of sufficient size and length to conduct the water being pumped to an approved disposal point.

The Contractor shall also furnish, install, and maintain equipment of approved size and type at the well head for measuring the flow of water; such equipment to be a calibrated, in-line orifice and manometer and in-line propeller-type water meter.

4.3 PRE-PUMPING TEST

Twenty-four hours prior to any test pumping the Contractor shall conduct a pre-pumping test of all equipment to ensure that the test equipment functions properly and select the maximum pumping rate.

4.4 MEASUREMENTS TO BE TAKEN

During pumping the contractor shall assist the owner's geologist in recording the exact time of starting of that pumping test, and shall record the time of each adjustment of the pumping rate required to maintain a nearly constant pumping rate throughout each test. Measurements of the depth to the pumping water level below the top of casing and the actual pumping rate shall be made and recorded at intervals specified by the Geologist.

4.5 PRE- AND POST-PUMPING REQUIREMENTS

Two hours prior and up to 24-hours after any pumping test the Contractor shall not remove or alter the position of equipment that might effect the water level in the well unless so directed by the Geologist.

Section 5

MONITORING WELL CONSTRUCTION DETAILS

Each monitoring well shall be completed inside a perforated section of the 6 to 8-inch steel casing. Up to two 2-inch PVC wells will be installed at different aquifer zones in the cased hole. The depth of the permanent well(s) will be determined after drilling and geophysical testing is completed. Monitoring Well Construction will conform to standards for Resource Protection Wells as outlined in WAC-173-160-500.

5.1 WELL CASING

Well casing to be furnished and installed hereunder as part of the permanent well shall be new Schedule 80 PVC pipe with not less than 2-inch inside diameter.

The well screen to be furnished and installed shall be a nominal 2-inch diameter Schedule 80 PVC pipe. The well screen slots shall have an opening size of 0.010-inch.

The gravel pack material shall be clean, rounded, washed, Type Colorado Silica sand 8-12 or Aqua 8 Monterey sand.

If two wells are installed, the screened zones will be isolated by at least 10 feet of hydrated bentonite chips.

All well construction materials with the exception of the PVC pipe and screen will be furnished by the drilling contractor. Well installation will be performed by the drilling contractor under supervision of a geologist.

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Section 6

ESTIMATED CONSTRUCTION/TESTING COSTS

ITEM	UNIT	UNIT COST	QUANTITY	APPORTIONED COSTS ¹	
				SKCHD	W.W.D.
Testhole drilling	ft	40	500	\$6,800	\$13,200
Mob/demob	lump			175	325
Well Construction	hr	160	26	1,456	2,704
<u>Materials</u>					
2-Inch PVC Screen	ft	5	60	105	195
2-Inch PVC Pipe	ft	3.50	550	674	1,251
Gravel	bag	11.50	30	121	224
Bentonite Chips	bag	8	20	56	104
Bentonite Gel	bag	8	10	28	52
Geophysical Logging	day	1200	.5	210	390
Aquifer Testing	hr	90	30	<u>945</u>	<u>1,755</u>
				\$10,695	\$20,200

1) Project costs were apportioned on a percentage basis as follows:

Seattle King County Health Department (SKCHD) - 35%
Woodinville Water District (W.W.D.) - 65%