

AGREEMENT TO FURNISH HYDROGEOLOGICAL SERVICES
FOR
THE CONSTRUCTION OF MONITORING WELLS
AT THE CALIFORNIA STREET LANDFILL

This AGREEMENT is made and entered into as of this 3rd day of March, 1992, by and between

City of Redlands Public Works Department,
Utilities Division, hereinafter referred to as
"OWNER"

and

Richard C. Slade, Consulting Groundwater
Geologist, hereinafter referred to as "HYDRO-
GEOLOGIST".

In consideration of the mutual promises, covenants and conditions hereinafter set forth, the parties do hereby agree as follows:

ARTICLE 1 - ENGAGEMENT OF THE HYDROGEOLOGIST

- 1.1 The OWNER hereby engages the HYDROGEOLOGIST and the HYDROGEOLOGIST hereby accepts the engagement to perform for hydrogeological services for construction of monitoring wells at the California Street Landfill and prepare the Solid Waste Assessment Test Report, hereinafter referred to as Project.
- 1.2 All services under this AGREEMENT shall be done in a professional manner, and the HYDROGEOLOGIST represents that the firm employs those with the demonstrated skill and the professional expertise necessary to provide high quality services under this AGREEMENT.
- 1.3 The HYDROGEOLOGIST shall be responsible, to the level of competency presently maintained by other practicing professional engineers providing the same type of services, for the professional and technical soundness, accuracy and adequacy of all reports, designs, drawings, specifications, and other services and materials furnished under this AGREEMENT.

ARTICLE 2 - SERVICES OF THE HYDROGEOLOGIST

- 2.1 The HYDROGEOLOGIST shall perform the services required for the Project as defined in Attachment A, Scope of Work.
- 2.2 The Scope of Work shall be more specifically defined for each Task set forth in Attachment A by amendment to this AGREEMENT.
- 2.3 The following additional services may be provided by the HYDROGEOLOGIST when requested and approved by the OWNER and agreed to by the HYDROGEOLOGIST:

- Depth discrete water sampling using syringe techniques.
- Initial sampling and observations of protocol at completion.
- Additional meetings with the City and/or CRWQCB.
- Other services not specified elsewhere in the AGREEMENT.

ARTICLE 3 - RESPONSIBILITIES OF THE OWNER

- 3.1 The OWNER shall place at the disposal of the HYDROGEOLOGIST all available information pertinent to the Project, including previous reports and any other data relative to the Project.
- 3.2 The OWNER shall provide access to and make all provisions for the HYDROGEOLOGIST to enter upon public and private lands as required for the HYDROGEOLOGIST to perform his services under this AGREEMENT.
- 3.3 The OWNER shall provide all environmental assessments or impact reports required for this project and not otherwise specifically required to be provided by the HYDROGEOLOGIST.
- 3.4 The OWNER shall designate in writing a person to act as the OWNER'S representative with respect to the services to be performed under this Agreement, such person to have complete authority to transmit instructions, receive information, interpret and define the OWNER'S policies and decisions with respect to materials, equipment, elements and systems pertinent to the services covered by this AGREEMENT.

ARTICLE 4 - PERIOD OF SERVICE

- 4.1 The HYDROGEOLOGIST shall proceed with the engineering services set forth in Article 2 in accordance with the schedule defined in Attachment B: Schedule.
- 4.2 The HYDROGEOLOGIST shall proceed with the services under this AGREEMENT promptly and shall prosecute them diligently.

ARTICLE 5 - PAYMENTS TO THE HYDROGEOLOGIST

- 5.1 For the services performed under Article 2, Owner shall pay the HYDROGEOLOGIST on a time and materials basis at the hourly rates shown in Attachment D, Schedule of Rates, except as provided herein. The manhour estimates and total project budget are shown in Attachment C, Fee Proposal. The total amount of compensation for the Project shall not exceed the total shown in Attachment C, Fee Proposal, unless the scope of the Project is materially changed and agreed to by the Parties.

- 5.2 Payment for additional services requested by the OWNER per Article 2.2 shall be in accordance with a separately negotiated fee or in accordance with the hourly rates shown in Attachment D: Schedule of Rates.
- 5.3 HYDROGEOLOGIST agrees that at the point 75 percent of budgeted costs have been expended for the Project, the HYDROGEOLOGIST will notify the OWNER in writing, including a brief report on job status, percent complete, analysis of budget, and envisioned expenses to complete the contractual effort. The budget shall not be exceeded except if previously approved by OWNER.
- 5.4 The HYDROGEOLOGIST shall bill the OWNER within ten (10) days following the close of each month by submitting an invoice indicating the work performed, who performed the work, under which subtask in the Project budget the work was performed, indirect costs, and if requested, the detailed cost of all work including back-up documentation. Payments by OWNER to HYDROGEOLOGIST shall be made within 30 days after receipt and approval of HYDROGEOLOGIST'S invoice, by warrant payable to the HYDROGEOLOGIST.
- 5.5 All notices, bills and payments shall be made in writing and may be given by personal delivery or by mail. Notices, bills and payments sent by mail shall be addressed as follows:

TO OWNER: MICHAEL L. HUFFSTUTLER
 PUBLIC WORKS DEPARTMENT
 Utilities Division
 P. O. Box 3005
 2 E. Citrus Avenue
 Redlands CA 92373

TO HYDROGEOLOGIST: RICHARD C. SLADE
 CONSULTING GROUNDWATER GEOLOGIST
 6442 Coldwater Canyon Avenue, Suite 214
 North Hollywood CA 91606

When so addressed, such notices shall be deemed given upon deposit in the United States Mail. In all other instances, notices, bills and payments shall be deemed given at the time of actual delivery. Changes may be made in the names and addresses of the person to whom notices, bills and payments are to be given by giving notice pursuant to this paragraph.

ARTICLE 6 - INSURANCE AND INDEMNIFICATION

- 6.1 HYDROGEOLOGIST shall maintain worker's compensation insurance and, in addition, shall maintain insurance to protect OWNER from claims for damage due to bodily injury, personal injury, or death and claims for injury to or destruction of tangible property while performing the services covered by this AGREEMENT. Said public liability and property damage insurance shall be in a minimum

combined single limit of \$1,000,000, and in the aggregate. The OWNER shall be named a primary additional insured on insurance coverage for public liability and property damage. The HYDROGEOLOGIST shall provide OWNER with a certificate evidencing such insurance coverage.

- 6.2 HYDROGEOLOGIST agrees to indemnify, hold harmless and defend OWNER and any and all of their elected officials, officers, agents, engineers, and employees from and against all claims, loss, damage, charge or expense, to which they or any of them may be put or subjected to arising out of or resulting from any willful misconduct or negligent act or actions, omission or failure to act on the part of the HYDROGEOLOGIST, his contractors, his suppliers, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable in the performance of the services described in this AGREEMENT.

ARTICLE 7 - GENERAL CONSIDERATIONS

- 7.1 In the event of any legal action brought by either party against the other to enforce any of the obligations hereunder or arising out of any dispute concerning the terms and conditions hereby created, the losing party shall pay the prevailing party such reasonable amounts for fees, costs, expenses, including attorney's fees, as may be set by the Court.

- 7.2 The HYDROGEOLOGIST shall not sublet or assign any of the services covered by this AGREEMENT, except with the prior written approval of the OWNER and in strict compliance with the terms, provisions, and conditions of the AGREEMENT.

- 7.3 The key HYDROGEOLOGIST'S personnel proposed for the Project are as follows:

Richard C. Slade, Principal Hydrogeologist
Earl S. LePensee, Project Geologist
Mark W. Whitten, Project Geologist

HYDROGEOLOGIST agrees that these key people shall be made available and assigned to the OWNER'S Project, and that they shall not be replaced without concurrence from the OWNER.

- 7.4 It is understood and agreed by and between the parties that all documents, records, drawings, designs and specifications, cost estimates, and other project documents developed by the HYDROGEOLOGIST pursuant to this AGREEMENT shall become the property of OWNER and shall be delivered to OWNER upon completion of services. Any reuse of such documents for other projects and any use of incomplete documents shall be at the OWNER'S sole risk.
- 7.5 HYDROGEOLOGIST is for all purposes an independent contractor. All qualified personnel provided by HYDROGEOLOGIST pursuant to the

provisions of this AGREEMENT are to be employed by HYDROGEOLOGIST for his account only, and in no event shall HYDROGEOLOGIST or any personnel retained by him be deemed to have been employed by the OWNER or engaged by the OWNER for the account of or on behalf of the OWNER.

- 7.6 Unless earlier terminated, as stipulated below, this agreement shall terminate upon completion and acceptance by the OWNER of all services approved for performance under Article 2 of this AGREEMENT.
- 7.7 This AGREEMENT may be terminated in writing by either party in the event of failure by the other party to fulfill its obligations under this AGREEMENT through no fault of the terminating party: providing, that no such termination may be effected unless the other party is given (1) not less than thirty (30) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate, and (2) an opportunity for consultation with the terminating party prior to termination.
- 7.8 If this AGREEMENT is terminated by the OWNER for reasons of default by the HYDROGEOLOGIST, an adjustment to HYDROGEOLOGIST's compensation shall be made, but (1) no amount shall be allowed for anticipated profit or unperformed services, and (2) any payment due to the HYDROGEOLOGIST at the time of termination may be adjusted to the extent of any additional costs to the OWNER occasioned by the HYDROGEOLOGIST'S default. If termination for default is effected by the HYDROGEOLOGIST, the adjustment in compensation shall provide for payment to the HYDROGEOLOGIST to include a reasonable profit for services rendered and reimbursement for expenses incurred prior to the termination, in addition to termination settlement costs reasonably incurred by the HYDROGEOLOGIST relating to commitments which had become firm and approved by OWNER prior to the termination.
- 7.9 Upon receipt of a termination notice, the HYDROGEOLOGIST shall (1) promptly discontinue all services affected (unless the notice directs otherwise), and (2) deliver or otherwise make available to the OWNER, copies of data, design calculations, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the HYDROGEOLOGIST in performing services under this AGREEMENT.
- 7.10 HYDROGEOLOGIST shall maintain books and accounts of all project related payroll costs and all expenses and incidental expense. Books shall be available at all reasonable times for examination by the OWNER at the office of the HYDROGEOLOGIST.
- 7.11 This AGREEMENT, including attachments incorporated herein by reference, represents the entire AGREEMENT and understanding between the parties and any negotiations, proposals or oral

agreements are intended to be integrated herein and to be superseded by this written AGREEMENT. Any supplement or amendment to this AGREEMENT to be effective shall be in writing and signed by the OWNER and HYDROGEOLOGIST.

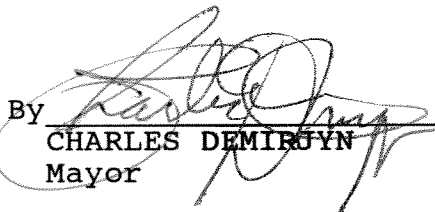
7.12 This AGREEMENT shall be governed by and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, duly authorized representatives of the parties have signed in confirmation of this AGREEMENT.

CITY OF REDLANDS

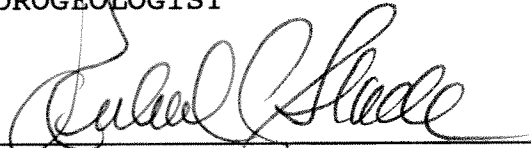
RICHARD C. SLADE
CONSULTING GROUNDWATER
HYDROGEOLOGIST

By



CHARLES DEMIROYN
Mayor

By



RICHARD C. SLADE
Registered Professional
Hydrogeologist

ATTEST:



Julie Boyer
City Clerk, City of Redlands

CITY OF REDLANDS
PUBLIC WORKS DEPARTMENT
MUNICIPAL UTILITIES

ATTACHMENT A

SCOPE OF WORK

Task 1: Field Services

This task will generally consist of the HYDROGEOLOGIST, Richard C. Slade & Associates, observing and supervising drilling operations and groundwater monitoring well installation; geologically logging and collecting drill cuttings and/or soil samples; collecting soil samples and submitting selected soil samples for laboratory analysis and; conducting air-monitoring activities. The work will be conducted based on the following listed factors:

- Three new groundwater monitoring wells are to be installed at the landfill site at locations selected by others and reportedly approved by the California Regional Water Quality Control Board (CRWQCB).
- The total depth of drilling in each well is anticipated to be approximately 170-200 feet deep and the anticipated drilling rate is 8 feet/hour.
- Existing wells at the site range in approximate depth between 97 and 123 ft and are essentially dry due to the ongoing drought and continued groundwater extractions in the basin.
- The existing wells are not to be abandoned and destroyed, but rather will be saved for future monitoring should basin-wide water levels recover to their pre-drought elevations.
- The assigned field geologist (a Registered Geologist) will: geologically log drill cuttings; sample soil; monitor drilling contractor actions regarding the installation of casing, gravel pack, and cement seals, monitor development of the wells; and observe dedicated pump installation on a full-time basis.
- Ambient air conditions will be monitored by the field geologist, according to a prepared Site Safety Plan during drilling operations to detect the presence of hazardous gases such as methane and possibly vinyl chloride.

- Level C safety equipment (air respirators and tyvek coveralls) will be initially used during drilling operations.
- Costs for the drilling contractor, casing and other expendables, including the cost and installation charges for dedicated pumps, laboratory costs for soils and groundwater sample testing, and for surveyors to accurately determine the location and elevation of the new wells are not included within this fee proposal.
- Laboratory services will be provided by the City of Redlands, including: delivery of soil sampling tubes and groundwater sampling bottles to the site; collecting groundwater samples from the monitoring wells; delivery of the samples to the appropriate laboratories; and payment of all laboratory costs.
- The City of Redlands will obtain the necessary permission for any rights-of-way to the property, and shall perform any necessary site grading, including roads, for drill rig access.

Task 2: Report Preparation

A Solid Waste Assessment Test (SWAT) Report will be prepared by the HYDROGEOLOGIST and submitted to the City of Redlands. This report will summarize the results of previous work conducted at the site, summarize the procedures and results of the drilling activities and groundwater monitoring well installation and sampling conducted during the Task 1 scope of services, and contain the HYDROGEOLOGIST's interpretation and conclusions with respect to conditions encountered during drilling and soil and groundwater sampling activities. The completed SWAT report is to be submitted to the CRWQCB by the City of Redlands.

CITY OF REDLANDS
PUBLIC WORKS DEPARTMENT
MUNICIPAL UTILITIES

ATTACHMENT B

SCHEDULE

The following outlines the project tasks at the California Street Landfill and the approximate time to complete each, from the time the HYDROGEOLOGIST is approved to initiate field work on the project.

Task 1 Field Services

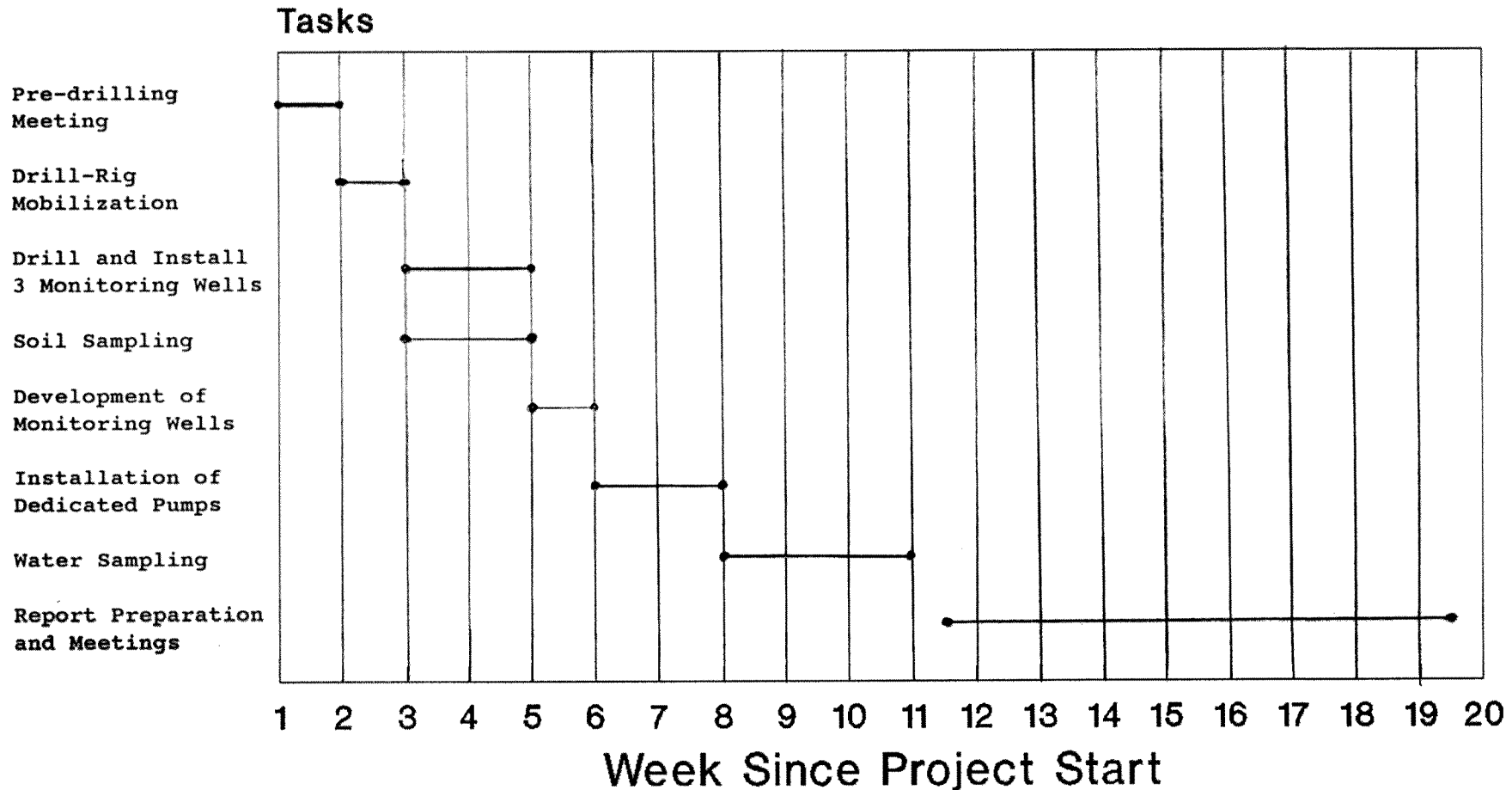
Pre-drilling Meeting	1 week
Drill-Rig Mobilization	1 week
Drilling and Installation of 3 Monitoring Wells	2 weeks
Soil Sampling	2 weeks
Development of Monitoring Wells	1 week
Installation of Dedicated Pumps	2 weeks
Water Sampling*	3 weeks
Report Preparation and Meetings	8 weeks

* includes approximate turnaround time
 for laboratory analysis of collected
 samples.

The figure on the following page graphically illustrates the above noted time intervals to complete the tasks, beginning with start of the field work.

California Street Landfill

Work Schedule



CITY OF REDLANDS
PUBLIC WORKS DEPARTMENT
MUNICIPAL UTILITIES

ATTACHMENT C

FEE PROPOSAL

The proposed costs for hydrogeologic services as outlined in Attachment A are detailed as follows:

Task 1 - Field Services

1.1 Pre-drilling Meeting

One Pre-drilling conference, with a concurrent site visit with the drilling contractor and the City of Redlands at the landfill site, shall be conducted.

<u>Personnel</u>	<u>Units</u>	<u>Cost Per Unit</u>	<u>Total</u>
Hydrogeologist	4 hrs.	\$105.00	\$420.00
Project Geologist	8 hrs.	70.00	560.00
Clerical	2 hrs.	35.00	70.00
Miscellaneous (tele., mileage, etc.)			75.00
	Subtotal		\$1,125.00

1.2 Drilling Activities

Provision of technical support and oversight services during the drilling, installation, construction, testing, and soils sampling of three groundwater monitoring wells. This is the most difficult area for which to provide detailed and accurate costs because of the unknown drill depths and drilling methods for the three new monitoring wells. Furthermore, the drilling contractor and the experience of the drilling crew with the final drill rig to be used, are wholly unknown at this time.

<u>Personnel</u>	<u>Units</u>	<u>Cost Per Unit</u>	<u>Total</u>
Hydrogeologist	25 hrs.	\$105.00	\$ 2,625.00
Project Geologist	200 hrs(est.)	70.00	14,000.00
Clerical	10 hrs.	35.00	350.00
Miscell.(Mileage, repro., etc.)			600.00
	Subtotal		\$17,575.00

Equipment

Organic Vapor Monitor (OVM)	2 weeks	\$460.00/week	\$920.00
Draeger pump	2 weeks	30.00/week	60.00
Draeger tubes	1 box	50.00/box	50.00
Level C cartridges	10 units	5.00/unit	50.00

(continued)

Tyvek coveralls	2 boxes	100.00/box	200.00
Water Quality Meter	4 days	75.00/day	300.00
Water Level Meter	4 days	25.00/day	100.00
Miscellaneous			<u>100.00</u>
	Subtotal		\$1,780.00

For the proposed costs, the use of an OVM and draeger tubes is anticipated during the drilling phase only. If vapors are such that air quality poses a potential problem, then the OVM and draeger tubes will be needed onsite for longer time periods. In this event, additional rental time will be needed. Further, an additional service that may be offered after completion of the monitoring wells is depth discrete water sampling, using syringe sampling techniques, in each monitoring well. This option will be assessed following completion of the monitoring wells and will be presented to the City of Redlands and the CRWQCB for approval, should this option be essential.

Task 2 - Report Preparation

Preparation of a final SWAT report summarizing drilling operations, groundwater monitoring well installation, and soil and groundwater sampling activities.

<u>Personnel</u>	<u>Units</u>	<u>Cost Per Unit</u>	<u>Total</u>
Hydrogeologist	8 hrs.	\$105.00	\$ 840.00
Project Geologist	60 hrs(est.)	70.00	4,200.00
Clerical	20 hrs.	35.00	700.00
Drafting	4 hrs.	40.00	160.00
Reproduction			<u>200.00</u>
	Subtotal		\$6,100.00

Task 3 - Project Meetings

During our work on this project, we anticipate there may be four meetings with City personnel and/or CRWQCB personnel.

<u>Personnel</u>	<u>Units</u>	<u>Cost Per Unit</u>	<u>Total</u>
Hydrogeologist	20 hrs.	\$105.00	\$2,000.00
Project Geologist	25 hrs(est.)	70.00	1,750.00
Clerical	10 hrs.	35.00	350.00
Miscellaneous			<u>300.00</u>
	Subtotal		\$4,400.00

ESTIMATED PROJECT TOTAL = \$30,980.00

The City of Redlands intends to conduct the initial round of water sampling activities, after installation of dedicated pumps in the groundwater monitoring wells has been completed. However, should the City of Redlands wish to utilize additional

consulting services with regard to this initial sampling (instructing City employees in the use of dedicated pumps, if necessary, and observation of sampling protocol for SWAT reporting purposes), then an estimated \$1000.00 additional will be applied to the above total.

Further, this proposal is based on the anticipated conditions listed above, under Task 1 items. Should site conditions other than anticipated be encountered and cause delays in drilling and/or well construction activities, then the City of Redlands will be notified by the HYDROGEOLOGIST. Expenses incurred as a result of unforeseen circumstances or field conditions will be charged on a time and expense basis. Also, additional meetings with the City and/or CRWQCB, should they be needed, not included in this scope of work will be charged on a time and expense basis.

CITY OF REDLANDS
DEPARTMENT OF PUBLIC WORKS
MUNICIPAL UTILITIES

ATTACHMENT D
SCHEDULE OF RATES
RICHARD C. SLADE & ASSOCIATES

SERVICES

Hydrogeologist and Engineering Geologist	\$105.00 per hour
Senior Geologist	\$80.00 per hour
Project Geologist	\$70.00 per hour
Graphics	\$40.00 per hour
Clerical	\$35.00 per hour

SPECIAL EQUIPMENT AND SERVICES

Hermit Data Logger & Transducer (for aquifer tests)	\$350.00 per day
Groundwater Monitoring Syringe (for volatile organics)	\$125.00 per day
Submersible Pump (4-in diameter) and Generator	\$150.00 per day
Field Water Quality Probe (T, pH, EC)	\$75.00 per day
Electric Tape Water Level Probe	\$25.00 per day
Check-valve Bailers (hydrocarbons or other contaminants)	\$20.00 per day
Subsurface Exploration, Water Quality Laboratory	Cost + 15%
Job Supplies, Reproduction, Lodging, etc.	Cost + 15%
Automobile Mileage	\$0.35 per mile

CONDITIONS

Findings, conclusions, and recommendations will be prepared, within the limits prepared by the client, in accordance with generally accepted professional hydrogeologic and engineering geologic practice. No other warranty, either expressed or implied, is made by any verbal or written reports or services furnished for this project.

Invoices will be issued, at my option, on a monthly basis or when the work is completed. A service charge of 1-1/2% per month will be payable on any amount not paid within 30 days. Any attorney fees or other costs incurred in collecting delinquent charges shall be paid by the client.

Court testimony and depositions as an expert will be charged at the rate of \$1500.00 per day, plus expenses. The full day rate will be charged for any portion of a day. Preparation for a court case will be charged at regular hourly rates. Travel time will be charged at regular hourly rates, portal-to-portal.

Client will furnish rights-of-way to land proposed for field operations. Reasonable precautions will be taken to minimize damage to land or underground facilities (such as pipelines), but the proposed fees do not include costs for restoration of any damage resulting from field activities.

January 1991