

AGREEMENT TO FURNISH
GROUNDWATER MONITORING PROGRAM
ANALYTICAL AND REPORTING SERVICES
FOR THE CALIFORNIA STREET LANDFILL

This Agreement is made and entered into this 7th day of April, 1998 by and between the City of Redlands, a municipal corporation (hereinafter "City") and 3D GeoServices, Inc., (hereinafter "Consultant").

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

ARTICLE 1 - ENGAGEMENT OF CONSULTANT

- 1.1 City hereby engages Consultant, and Consultant hereby accepts the engagement, to perform professional hydrogeologic consulting services ("Services") for the Groundwater Monitoring Program Analyses and Reporting for the City's California Street Landfill (the "Project").
- 1.2 The Services shall be performed by Consultant in a professional manner, and Consultant represents that it has the skill and the professional expertise necessary to provide high quality Services for the Project at the level of competency presently maintained by other practicing professional consultants in the industry providing similar types of services.

ARTICLE 2 - SERVICES OF CONSULTANT

- 2.1 The specific Services which Consultant shall perform are more particularly described in Attachment "A," entitled "Scope of Work," which is attached hereto and incorporated herein by this reference.

ARTICLE 3 - RESPONSIBILITIES OF CITY

- 3.1 City shall make available to Consultant information in its possession that is pertinent to the performance of Consultant's Services.
- 3.2 City will provide access to and make provisions for Consultant to enter upon City-owned property as required by Consultant to perform the Services.
- 3.3 City designates Valorie Shatynski, Solid Waste Manager, to act as its representative with respect to the Services to be performed under this Agreement.

ARTICLE 4 - PERIOD OF SERVICE

- 4.1 Consultant shall perform the Services in a diligent manner and in accordance with the Project Schedule set forth in Attachment B.

ARTICLE 5 - PAYMENTS TO THE CONSULTANT

- 5.1 The total compensation for Consultant's performance of the Services shall not exceed \$55,625, in accordance with Attachment C - Project Fee. City shall pay Consultant on a time and materials basis at the hourly rates shown in Attachment D - Rate Schedule.
- 5.2 Consultant shall bill City within ten days following the close of each month by submitting an invoice indicating the Services performed, who performed the Services, indirect costs, and the detailed cost of all Services including backup documentation. Payments by City to Consultant shall be made within 30 days after receipt and approval of Consultant's invoice, by warrant payable to Consultant.
- 5.3 All contractual 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:

City
Valorie Shatynski
Municipal Utilities Department
35 Cajon Street
P.O. Box 3005
Redlands, CA 92373

Consultant
Mercedes Murillo, President
3D GeoServices, Inc.
926 Alta Vista Drive
Altadena, CA 91001

When so addressed, such notices shall be deemed given upon deposit in the United States Mail. In all other instances, notices, bill 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 Consultant shall maintain worker's compensation insurance and, in addition, shall maintain insurance to protect City from claims for damage due to bodily injury, personal injury and death, and claims for injury to or destruction of tangible property while performing the Services required 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. Consultant shall maintain professional liability insurance in the aggregate amount of \$1,000,000 with

a minimum of \$500,000 per occurrence. City shall be named as an additional insured under all policies for public liability, property damage and comprehensive automobile liability and professional liability insurance, and such insurance shall be primary with respect to City and non-contributing to any insurance or self-insurance maintained by the City. Consultant shall provide City with certificates of insurance evidencing such insurance coverage prior to commencing the Services.

- 6.2 Consultant shall indemnify, hold harmless and defend City and its elected officials, officers, agents and employees from and against all claims, loss, damage, charges or expense, to which it or any of them may be put or subjected to the extent that they arise out of or result from any willful or negligent act or actions, omission or failure to act on the part of the Consultant, its contractors, its suppliers, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them maybe liable in the performance of the Services required by this Agreement.

ARTICLE 7 - GENERAL CONSIDERATIONS

- 7.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees.
- 7.2 Consultant shall not assign any of the Services required by this Agreement, except with the prior written approval of City and in strict compliance with the terms, provisions and conditions of this Agreement.
- 7.3 Consultant's key personnel for the Project are,
- | | |
|-----------------------|--------------------------------|
| Project Manager: | Mercedes Murillo, R.G., C.E.G. |
| Data Base Management: | Anne Saffell, C.H.G |
| CAD/GIS: | Ernesto Rodriguez |
| Statistical Analysis: | Mercedes Murillo, R.G., C.E.G. |
- Consultant agrees that the key personnel shall be made available and assigned to the Project, and that they shall not be replaced without concurrence from City.
- 7.4 All documents, records, drawings, designs, costs estimates, electronic data files and databases and other Project documents developed by the Consultant pursuant to this Agreement shall become the property of City and shall be delivered to City upon completion of the Services or upon the request of City. Any reuse of such documents for other projects and any use of incomplete documents will be at City's sole risk.
- 7.5 Consultant is for all purposes an independent contractor. All personnel employed by

Groundwater Monitoring Program Analytical and Reporting Services 1998
3D GeoServices, Inc.

Consultant are for its account only, and in no event shall Consultant or any personnel retained by it be deemed to have been employed by City or engaged by City for the account of or on behalf of City.

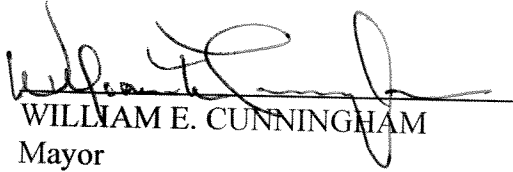
- 7.6 Unless earlier terminated, as provided for below, this Agreement shall terminate upon completion and acceptance by City of the Services.
- 7.7 This Agreement may be terminated by either party, without cause, by providing thirty (30) days prior written notice to the other (delivered by certified mail, return receipt requested) of intent to terminate.
- 7.8 If this Agreement is terminated by City, an adjustment to Consultant's compensation shall be made, but (1) no amount shall be allowed for anticipated profit or unperformed services, and (2) any payment due Consultant at the time of termination may be adjusted to the extent of any additional costs to City occasioned by any default by Consultant.
- 7.9 Upon receipt of a termination notice, Consultant shall (1) promptly discontinue all services affected, and (2) deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable), of any data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by Consultant in performing the Services required by this Agreement.
- 7.10 Consultant shall maintain books and accounts of all Project related payroll costs and all expenses. Such books shall be available at all reasonable times for examination by the City at the office of Consultant.
- 7.11 This Agreement, including the attachments incorporated herein by reference, represents the entire agreement and understanding between the parties and any prior negotiations, proposals or oral agreements are superseded by this Agreement. Any amendment to this Agreement shall be in writing, approved by the City Council of City and signed by City and Consultant.
- 7.12 This Agreement shall be governed by and construed in accordance with the laws of the State of California.

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IN WITNESS WHEREOF, duly authorized representatives of the City and Consultant have signed
in confirmation of this Agreement.

City of Redlands
("City")

By:

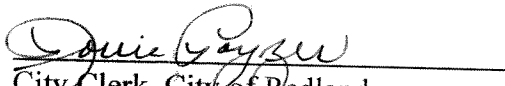

WILLIAM E. CUNNINGHAM
Mayor

3D GeoServices, Inc.
("Consultant")

By:


MERCEDES MURILLO
President

ATTEST:


City Clerk, City of Redlands

**1998 GROUNDWATER MONITORING PROGRAM
ANALYTICAL AND REPORTING SERVICES**

ATTACHMENT A

SCOPE OF WORK

Attachment A - Scope of Work

3D GeoServices understands that this agreement is for the calendar year 1998, to commence upon authorization from the City of Redlands (City). The agreement will require submittal of four quarterly monitoring reports and one annual report to the Santa Ana RWQCB. 3D GeoServices will follow an established format to provide consistency to the City's program and ease RWQCB review of the reports. This attachment describes the agreement scope of work for the California Street Landfill (CSL) groundwater monitoring program.

Task 1 - Quarterly Groundwater Monitoring Reports - 3D GeoServices understands that the City personnel collect the required samples from the designated sampling locations and samples are submitted to APCL Laboratories for analysis. 3D GeoServices will review field notes and laboratory data in a timely fashion so that data review is completed quickly and any required RWQCB notification meets the deadlines established in Order 93-57. The data review will include:

- Providing technical and regulatory expertise to City staff
- Review of all field notes to verify that proper sampling techniques were utilized
- A thorough data quality check to verify that holding times, required analyses, reporting limits and laboratory precision requirements have been met
- Updating water level and groundwater quality data bases
- Performance of a thorough quality control check on all data to verify that only correct information is input into the data bases.

Statistical analysis of the water quality data will be performed by 3D GeoServices. The quarterly groundwater monitoring reports will include the following information:

- An executive summary of current monitoring results
- A brief description of the purpose and scope of the groundwater monitoring program
- A background discussion on site operations, landfill waste description and disposal volumes, physical setting, and related studies at the CSL
- A discussion of groundwater occurrence and movement, including hydrographs for each well, a groundwater elevation contour map, and groundwater gradient calculation
- A discussion of groundwater quality, including field and laboratory methods, statistical methodology and results, tabulated analytical results, copies of laboratory reports and chain of custody forms, copies of field forms, and graphs of constituents detected at concentrations exceeding Basin Plan Objectives (BPOS)
- Sludge chemical analyses
- Groundwater levels and chemical data for the Church Street Burn Site
- Conclusions and recommendations

Task 2 - 1997 Annual Groundwater Monitoring Report - An annual groundwater monitoring report will be prepared in combination with the fourth quarter (Fall) 1997 report. In

Attachment A - Scope of Work

addition to the requirements listed in Task 1, the following items will be included in the annual report:

- Groundwater monitoring well data summaries, including tabular and graphical summaries of groundwater levels and sampling results for all 1997 data, graphical presentation of groundwater constituents that equaled or exceeded BPOs or maximum concentration levels during any quarter of 1997, and summary tables of vadose zone sample results
- A discussion of groundwater quality at the CSL, a discussion of vadose zone quality and potential impacts to groundwater quality, and updated information relating to the groundwater monitoring system and hydrogeology of the CSL.

Task 3 - Laboratory Data Entry and Quality Check - The procedure for laboratory data entry includes manual and electronic transfer of data into the existing data base. All electronic data are checked to verify that correct formats have been generated and correct information is present on the electronic disks. After electronic data are verified, the data are transferred into the data base and the information is checked to ensure that the data base is accurate. Data management specialists will manually input water level information and laboratory data not available in electronic format; 100 percent of the data will be checked to verify accuracy.

All sample analyses will be checked against sample collection dates to verify that holding times were met. Analytical results will also be checked to verify that all required analyses have been performed and that laboratory quality assurance results were within acceptable limits. Any identified problems will be detailed in the quarterly reports. Laboratory reporting limits, BPOs, and maximum concentration levels will be highlighted with bold font so that the reader can easily discern potential problems.

Task 4 - General Consulting and Regulatory Compliance Assistance Services - 3D GeoServices will provide the City with general consulting services to assist in strategic planning for the CSL. While performing this task, 3D GeoServices will work closely with the City's project manager and sampling technicians, forming a cohesive extension of City staff.

In order to meet the City's needs, and at the City's request, 3D GeoServices personnel will answer any questions or issues the City, regulators, or general public may have regarding groundwater and vadose zone quality at the landfill. The project team may identify modifications that could improve the monitoring program for the City while minimizing costs; written justification and possible presentations would be needed prior to obtaining regulatory approval for changes in the program.

If a release is tentatively identified at the landfill, the City is required to immediately notify the RWQCB verbally and within 7 days by certified mail. 3D GeoServices will assist the City with these notifications so that the RWQCB is kept apprised of site conditions. 3D GeoServices will also keep

Attachment A - Scope of Work

the City informed of any potential regulatory changes that could impact the landfill monitoring program.

Deliverables - Deliverables will consist of memorandums, letter reports, text and faxed information to be provided to City staff on a time and materials basis upon request. One draft copy of each groundwater monitoring report will be submitted to the City for review. After incorporation of the City's comments, eight bound copies, one unbound reproducible copy, and one copy of the final report in electronic format will be submitted to the City for each of the Quarterly and Annual Reports. All technical reports submitted will be certified by a geologist currently registered in the State of California.

**GROUNDWATER MONITORING PROGRAM
ANALYTICAL AND REPORTING SERVICES**

ATTACHMENT B

PROJECT SCHEDULE

Attachment B Groundwater Monitoring Program Reporting Schedule California Street Landfill																
Task	First Quarter 1998			Second Quarter 1998			Third Quarter 1998			Third Quarter 1998			Third Quarter 1998			Jan-99
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
First Quarter 1998 Report																
Receive Data from City			16-Mar													
Data Base Management and Statistical Analysis				10-Apr												
Draft Report Preparation / Submittal				17-Apr												
City's Review of Draft Report				23-Apr												
Incorporate City's Comments				27-Apr												
Final Report Submittal				30-Apr												
Second Quarter 1998 Report																
Receive Data from City						15-Jun										
Data Base Management and Statistical Analysis							6-Jul									
Draft Report Preparation / Submittal							20-Jul									
City's Review of Draft Report							27-Jul									
Incorporate City's Comments							29-Jul									
Final Report Submittal							31-Jul									
Third Quarter 1998 Report																
Receive Data from City									14-Sep							
Data Base Management and Statistical Analysis										5-Oct						
Draft Report Preparation / Submittal										19-Oct						
City's Review of Draft Report										26-Oct						
Incorporate City's Comments										28-Oct						
Final Report Submittal										31-Oct						
Fourth Quarter and Annual 1998 Report																
Receive Data from City													14-Dec			
Data Base Management and Statistical Analysis														7-Jan		
Draft Report Preparation / Submittal														12-Jan		
City's Review of Draft Report														20-Jan		
Incorporate City's Comments														27-Jan		
Final Report Submittal														31-Jan		

Attachment B-1

**GROUNDWATER MONITORING PROGRAM
ANALYTICAL AND REPORTING SERVICES**

ATTACHMENT C

PROJECT FEE

Attachment C											
1998 Groundwater Monitoring Analytical and Reporting Services Fees											
California Street Landfill											
Task Description	Mercedes Murillo-CEG (\$80/hour)		David Bachtel-PE (\$80/hour)		Anne Saffell-CHG (\$80/hour)		Ernesto Rodriguez CAD (\$65/hour)		Mail / Repro	Hours	Costs
	Hours	Costs	Hours	Costs	Hours	Costs	Hours	Costs	Costs	Per Task	Per Task
Task 1 - Quarterly Monitoring Reports - Data Entry-QA/QC											
a. Data Entry, QA/QC	0.0	\$0	0.0	\$0	80.0	\$6,400	0.0	\$0	\$0	80.0	\$6,400
b. Statistical Analysis	220.0	\$17,600	0.0	\$0	0.0	\$0	0.0	\$0	\$0	220.0	\$17,600
c. CADD	0.0	\$0	0.0	\$0	0.0	\$0	48.0	\$3,120	\$0	48.0	\$3,120
d. Evaluation, Report Text	100.0	\$8,000	0.0	\$0	80.0	\$6,400	0.0	\$0	\$0	180.0	\$14,400
e. Reproduction, Binding, Mail	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	\$1,440	0.0	\$1,440
Subtotal Quarterly Reports	320.0	\$25,600	0.0	\$0	160.0	\$12,800	48.0	\$3,120	\$1,440	528.0	\$42,960
Task 2 - Annual Groundwater Monitoring Report											
a. Excel Charts	15.0	\$1,200	0.0	\$0	15.0	\$1,200	0.0	\$0	\$0	30.0	\$2,400
b. Evaluation, Report text	15.0	\$1,200	0.0	\$0	0.0	\$0	0.0	\$0	\$105	15.0	\$1,305
Subtotal Annual Reports	30.0	\$2,400	0.0	\$0	15.0	\$1,200	0.0	\$0	\$105	45.0	\$3,705
Task 3 - General Consulting/Regulatory Compliance Services	96.0	\$7,680	16.0	\$1,280	0.0	\$0	0.0	\$0	\$0	112.0	\$8,960
Total	446.0	\$35,680	16.0	\$1,280	175.0	\$14,000	48.0	\$3,120	\$1,545	685.0	\$55,625

**GROUNDWATER MONITORING PROGRAM
ANALYTICAL AND REPORTING SERVICES**

ATTACHMENT D

RATE SCHEDULE

Attachment D
1998 Groundwater Monitoring Reporting Program
Rate Schedule

Item	Rate
Professional Personnel (P.E., C.E.G., C.H.G., includes Computer Charges)	\$80.00 per hour
CAD Operator (includes CAD/GIS Equip)	\$65.00 per hour
Subcontracted Professional Services, Supplies	Cost plus 15%
Miscellaneous Out of Pocket Expenses (Copies, long distance telephone charges, special order office supplies, slide preparation, report and other presentation media, other direct costs)	Cost