



# California Integrated Waste Management Board



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Alan C. Lloyd, Ph.D.  
Secretary for  
Environmental  
Protection

Arnold Schwarzenegger  
Governor

March 20, 2006

To: All Prospective Contractors

RE: Assessment of Landfill Gas Monitoring Well Viability and Its Effect on Greenhouse Gas Emissions (IWM05046)

## Addendum No. 1 To the Request For Proposal (RFP)

1. The DVBE preference program has not been fully implemented by the Department of General Services (DGS). The DVBE preference program is not going to be applied to the Board's competitive processes until State agencies receive further notice from DGS regarding the program. Therefore, Section II, DVBE Preference is deleted from this RFP. Please note that although the preference in Section II has been deleted, the DVBE Participation requirements in Section III must still be met.
2. Attached is a list of all businesses who have expressed an interest in this contract to date (Attachment 4).
3. The following questions were either posed at the Proposers' Conference on March 09, 2006 or were submitted during the Question and Answer period.

Q1: How many reports are required upon completion of the contract?

A1: There will be two reports. One will be a report on landfill gas well viability in California,. The second will take the results of the first report and show the effects of that on greenhouse gas emissions from wells. For instance if a certain percentage of wells are found to be nonviable, what effect will not catching that gas have on greenhouse gas emissions.

Q2: When will the 20 landfill sites be announced?

A2: The Board will select the sites and make the locations available to Proposers through an Addendum to this RFP by March 24, 2006. The landfill site locations cannot be confirmed yet, but most likely the breakdown by Northern and Southern California regions will be as follows:

South: five (5) to six (6) in San Diego County, two (2) in Los Angeles County, two (2) in San Bernardino County and two (2) in Orange County.

North: two (2) in Shasta County near the City of Redding , one (1) in Tehama County near the City of Red Bluff, one (1) in Sacramento County, one (1) in Fresno County, one (1) in Monterey County, one (1) in Mendocino County and possibly one (1) in Santa Cruz County.

Q3: How many wells and how many probes must be sampled at each site?

- A3: A minimum of 4 wells must be sampled with a maximum of 12 probes at each site. We want as many wells sampled per site as possible. Many sites have more than four wells, so meeting this requirement should not be an issue
- Q4: Will the wells contain nested probes, or will they have single probes or both?
- A4: Most will have nested wells. Some are shallow, some are deep, but preferably we want to sample probes that are at least 35 feet deep if the sites allow. (A sample diagram showing probe depths Attachment 1 and a picture of a well with nested probes Attachment 2 is included in this Addendum.)
- Q5: Do you have background information on the landfills?
- A5: The Board may have information on the landfills already in our public files or CIWMB staff will obtain the information from site operators/owners, Local Enforcement Agencies and counties. More specific information is being collected as each site, to be used in this study, is identified.
- Q6: Will the background information be made available to Proposers?
- A6: The information will not be made available to the Proposers, but will be provided to the winning Proposer upon start of the contract. The information that is being collected does not contribute anything that would affect the methodology or cost of proposals. The information will not prove be of concern to the selected contractor until it comes time to prepare the final report. Proposers are welcome to research the landfill sites on their own if they feel it would be beneficial to their understanding of the project. The following resources are available:
- Link to CA county websites: [www.csac.counties.org/default.asp?id=4](http://www.csac.counties.org/default.asp?id=4)
  - CIWMB's Solid Waste Information System (SWIS) database: [www.ciwmb.ca.gov/SWIS/](http://www.ciwmb.ca.gov/SWIS/)
  - Contact for CIWMB Public Records Act requests: [dsturges@ciwmb.ca.gov](mailto:dsturges@ciwmb.ca.gov)
  - LEA Contacts: [www.ciwmb.ca.gov/LEACentral/LEADirectory/](http://www.ciwmb.ca.gov/LEACentral/LEADirectory/)
- Q7: Do you have a specific vendor in mind with regards to the bore hole monitor and is that equipment part of the bid?
- A7: No, we do not have a specific vendor in mind. Staff experience has shown that bore hole monitors with these specifications work best in the field. Any monitor that meets these specifications will work. The bore hole monitor equipment must be included in your bid cost, unless you already have a piece of equipment meeting the required specifications. If the contractor purchases the equipment with CIWMB contract dollars, the equipment will be returned to the CIWMB at the end of the contract. Title to the equipment vests in the State.
- Q8: What if the contractor already has a bore hole monitor meeting the specifications outlined in the RFP?
- A8: If that is the case, the bid will have a zero dollar amount for the cost of the bore hole monitor.
- Q9: Is a bore hole monitor, with those specification, larger or better than what you would typically see? What if we cannot purchase a piece of equipment meeting those specifications without exceeding the available funds for this contract?
- A9: If you cannot meet those specifications with the available funds, that would be a problem. CIWMB staff have done research and feel that the available funds for this contract will more than cover this cost.
- Q10: What kind of data will be reported for the sites?

A10: There will be a lot of data; 240 sets of data for probes alone, plus additional data such as boring logs, the background data of some monitoring, as-builts, construction data, depth of the probes, etc. The original plans at each site will have a log of the soils encountered as the bore hole was constructed. The soil was removed, the probes were suspended and the holes were backfilled with material. Part of the viability study will be to compare the actual depths and actual locations of slots that we see from the bore hole monitor with what was designed or planned. That is part of the viability study. It is possible that the design data for a site won't be available or just doesn't exist, but that will not be of concern to the Contractor, as the CIWMB will have chosen the sights. The new data will consist of the bore hole monitor, pressure testing of the probe, atmospheric data, monitoring the gas from the well, etc.

Q11: Has this study ever been done before?

A11: No. As far as we know this study is unique in the world.

Q12: Will you want to know waste quantities, tonnage, etc. of the landfill sites?

A12: No.

Q13: What data do you want on the probes?

A13: Age of the probe, subsurface geology, if probes in a certain area are collapsed, is it due to a certain geological situation if the well is filled with water, you may want to relate it to the subsurface geology as a reason for a viability issue.

Q14: What if the probe is damaged to a point that you can't take any reading, what then?

A14: These are assumed to be functioning wells, but if we find that they are damaged, that will be part of the viability study

Q15: What kind of trenching will be required for this project?

A15: We do not believe there will be a need for trenching since most sites will have information about subsurface geology already. We will be interested in the geology if there is water in the probe caused by subsurface water, perch water or if the ground water table is rising or falling. We don't expect the soil to impact the probes themselves, because the probes will be packed in some other type of material, such as sand, basically isolating them from the surrounding geology.

Q16: Do you expect to find water from leachate?

A16: No, but it is not impossible.

Q17: Won't the surrounding geology have an effect on the permeability of the gas that we are monitoring through the landfill? If so, won't that be important to the green house gas modeling?

A17: Yes, you will need to consider the landfill from that perspective. How the results from this study effects the green house gas modeling has never been done, so that will be up to the Proposer to plan their approach and CIWMB staff will assess that approach.

Q 18: Will the maps of the landfills be made available?

A18: Part of the data will be the maps of each site, showing the location and numbering of the existing monitoring wells. That will be part of the data. The CIWMB staff will make sure that the contractor has accurate information about the locations and depths of the probes at each site. A sample site map appears as Attachment 3.

Q19: What do you plan on doing with the information about the gas in relation to the green house gas modeling?

A19: We are attempting to find out whether, if there is a large percent of wells that are non-viable causing us to miss gas that is migrating past the boundary and possibly into the atmosphere and whether this impacts the green house gas models or whether this will be a negligible impact. It is hard to know whether uncontrolled emissions (over 5%) are significant at those large landfills which are well controlled and have gas recovery systems in place.

All other terms, conditions, and requirements of this RFP will remain the same.

If you have any questions relating to this RFP process, please contact me at (916) 341-6105 or at [contracts@ciwmb.ca.gov](mailto:contracts@ciwmb.ca.gov).

Sincerely,

*{Original Signed By}*

Carol Baker  
Contract Analyst  
Administrative Services Branch

Attachments

# WELL DIAGRAM SHOWING PROBE DEPTHS

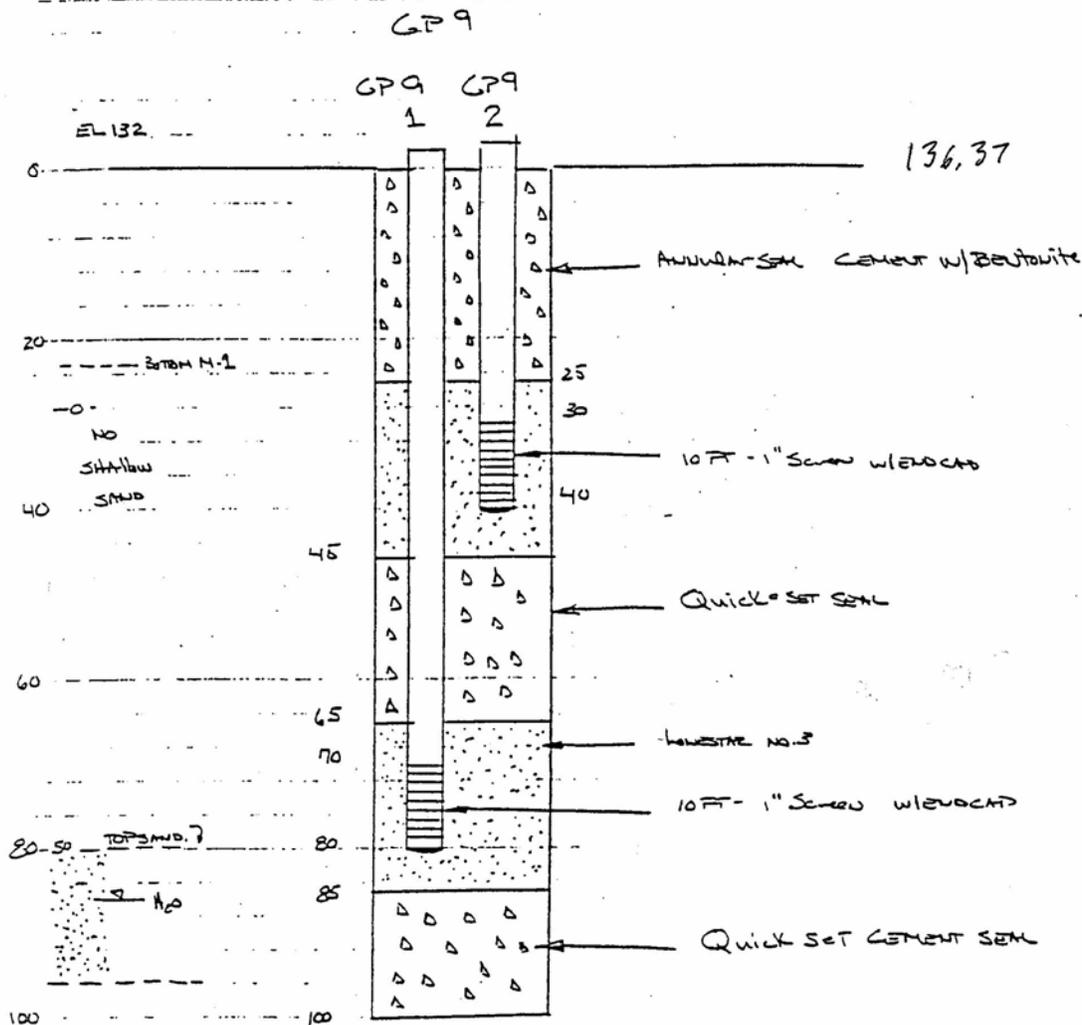
PROJECT NO. 94-7-

DATE 10/11/94

BY KWJ

SHEET NO. 1 OF     

GP No. 9

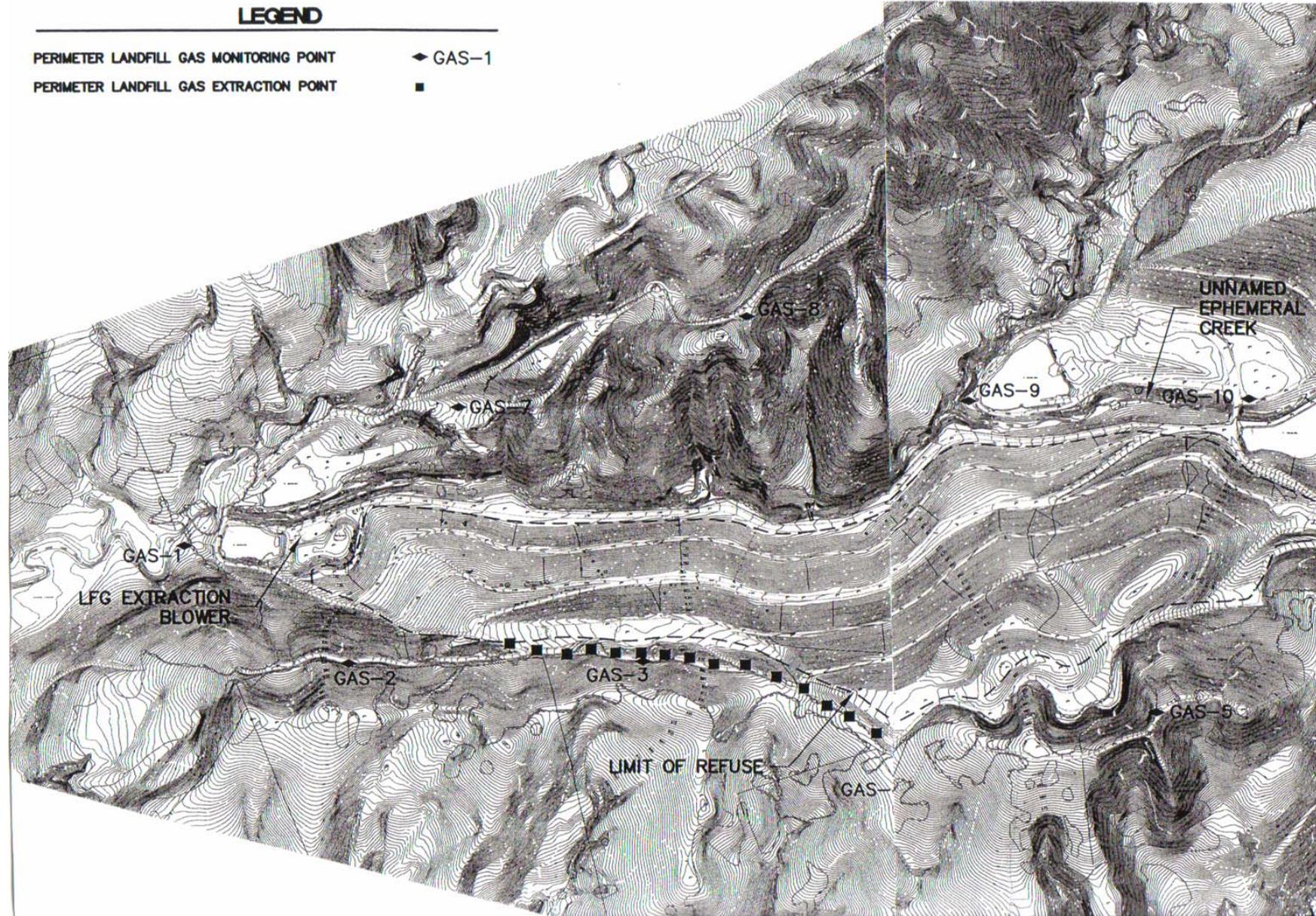


As-Built Profile - KWJ

**PICTURE OF WELL WITH FIVE (5) PROBES**



# SAMPLE SITE MAP



Interested Parties Listing  
IWM05046  
(Current as of 3/17/06)

The CIWMB has not confirmed the certification status of firms who have identified themselves as CA Certified Small Business (SB) or Disabled Veterans Business Enterprise (DVBE).

Contact	Email	Company	Mailing Address	City	State	Zip	SB	DVBE
Michael Buchanan	michael.s.buchanan@GE.com	GE Inspection Technologies/ Everest RVI Products and Services	875 Cotting Lane, Suite E	Vacaville	CA	95678		
James Eisert	james.eisert@lfr.com	LFR Inc.	4190 Douglas Blvd, Suite 200	Granite Bay	CA	95746		
Holly Bier	hbier@scsengineers.com	SCS Engineers, Inc.	3050 Fite Circle, Suite 106	Sacramento	CA	95827		
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Mark Hooyer	mhooyer@kleinfelder.com	Kleinfelder, Inc	849 W. Levoy Dr.	Taylorsville	UT	84123-2544		
Paul Mitchell	pmitchell@bas.com	Bryan A. Stirrat & Associates	1360 Valley Vista Drive	Diamond Bar	CA	91765		
Bob Healy	bob_healy@urscorp.com	URS Corporation	55 South Market Street, suite 1500	San Jose	CA	95113		