



Memorandum

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Reviewed by Wmm Date 9/12/07
General Manager

DATE: September 14, 2007
TO: General Manager
FROM: Senior Engineer
SUBJECT: Authorize Contract with Shaw Environmental, Inc. to Review Air Compliance Issues Associated with the District's Waste Management Operations

RECOMMENDATION: That the Board of Directors authorize the General Manager to execute an agreement with Shaw Environmental, Inc. of San Jose to provide a report and presentation to the Staff and Board on air quality issues that are expected to directly affect the District's waste management operations. The total cost for these consulting services shall not exceed \$15,000. Adequate funding has been included in the FY 2007/08 Environmental Services Budget to cover the costs of these services.

DISCUSSION

Air quality issues surrounding the District's waste management operations are complicated, and ever changing. The services under consideration here are recommended by staff to assure that the Monterey Peninsula Landfill remains in compliance with current regulations and is adequately prepared for anticipated pending air quality legislation. The purpose is to identify current and future legislation that is expected to impact the District and the options that are currently and potentially available to address the requirements in a meaningful and cost effective manner.

SHAW PROPOSAL

At staff's request, Shaw Environmental submitted a proposal to review air compliance issues relative to the District's waste management operations. A copy of Shaw's proposal is attached for your review.

Shaw (formerly EMCON/OWT) has been providing various air quality consulting services to the District for a number of years. Rich Merrill has provided air compliance assistance to the District and is thoroughly familiar with the District's air quality monitoring requirements. He is well qualified to perform this work for the District.

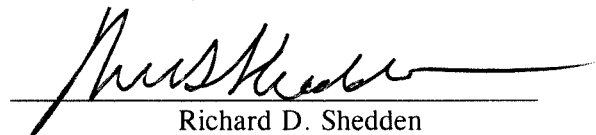
Shaw's proposal includes the following work tasks:

- Identify and review all pending and proposed air quality legislation that may directly impact the District, including green house gas and enhanced landfill gas (LFG) methane emissions control, renewable energy project incentives, landfill surface emissions monitoring, and other air quality topics of interest to the solid waste industry.
- Review new bills that have become law over the last several months that will lead to new or revised rules and regulations, with local enforcement requirements by the Monterey Bay Unified Air Pollution Control District. Examples include the inventorying of green house gas emissions, improved efficiency in collection of fugitive LFG, new criteria pollutant controls for off-road, diesel-fueled mobile sources, and compliance with the Air Toxic Control Measures rules.

- Perform LFG generation rate modeling to address the possible use of future landfill modules as pilot bioreactor operations, and the costs of subjecting the landfill to significant new monitoring, recordkeeping, and reporting requirements to address the anticipated increased LFG generation rate.
- Review LFG control options, including the replacement of one of the existing engines with a larger engine to utilize the increased volume of LFG, consideration of the use of a flare, and the addition of a new LFG-to-Energy Plant in concert with the Monterey Regional Water Pollution Control Agency's Wastewater Treatment Plant.
- Prepare a timeline of known and anticipated activities that will result from the present legislation and from the various options for management of the landfill and the resulting LFG generation into the future.
- Prepare a technical report summarizing each of the regulations, compliance requirements, control technology options, and other pertinent information.
- Make a presentation at a Board of Directors meeting summarizing the information gathered during the execution of the project.

CONCLUSION

Shaw Environmental has submitted a proposal for air quality consulting services which is very responsive to the District's needs. We have been very pleased with Shaw's performance in providing air quality monitoring and reporting services. It is therefore recommended that the Board of Directors authorize the General Manager to execute an agreement with Shaw Environmental, Inc. to provide a report and presentation to the Staff and Board on air quality issues that are expected to directly affect the District's operations. The total cost for these services shall not exceed \$15,000. Adequate funding has been included in the FY 2007/08 Environmental Services Budget to cover the costs of these services during the current fiscal year.



Richard D. Shedden

Attachment

**PROPOSAL TO REVIEW AIR COMPLIANCE ISSUES RELATIVE TO THE
MONTEREY PENINSULA LANDFILL OPERATION**

MONTEREY PENINSULA LANDFILL

Prepared for the

Mr. Rick Shedden

Monterey Regional Waste Management District (MRWMD)

P.O. Box 1670

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August 10, 2007

Prepared by

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Proposal 501260085.16000101

INTRODUCTION

Shaw Environmental, Inc. (Shaw) is pleased to submit this proposal to the Monterey Regional Waste Management District (MRWMD) for the preparation of a report and presentation to the staff and Board of Directors on Air Quality issues that are expected to directly affect the Monterey Peninsula Landfill operations. This proposal includes our scope of work, budget estimate, schedule, and assumptions for the collection of data required for the technical report and for the preparation of the presentation materials for the Board of Directors.

The period of performance for this proposal is September 1 through December 31, 2007.

The following scope of work presents the details of the work to be performed.

SCOPE OF WORK

The proposed work is divided into the following activities described in detail below.

1 – Legislative Review

Shaw will identify and review all pending and proposed legislation that may affect municipal solid waste management activities, green house gas and enhanced methane emissions control, renewable energy project incentives, and other air quality topics of interest to the solid waste industry. Mr. Mark Urquhart, who serves on the Solid Waste Association of North American (SWANA) California Legislative Task Force (LTF), will assist with this task. We will begin our review using the published list of bills being tracked by SWANA, identifying those that may directly impact the MRWMD, and summarizing the content and impact of the bill. A limit of 28 technical hours of effort has been established for this activity.

2 – Promulgated Regulatory Tracking

A number of bills have become law over the last several months that will lead to new or revised rules and regulations with local enforcement requirements. These include new requirements under AB32 that require the inventorying of green house gas emissions; the establishment of discrete early actions for identified landfills; improved efficiency in collection of fugitive landfill gas; and other measures to be established by the Air Resources Board. Other existing legislation that is being promulgated is criteria pollution controls for off-road (heavy duty diesel fueled) mobile sources; updating of the Portable Equipment Registration Program; and compliance with the Air Toxic Control Measures rules. A limit of 22 technical hours of effort has been established for this activity.

3 – Perform Gas Modeling

Shaw proposes to perform landfill gas generation rate modeling to address future project opportunities and impacts. For example, the possible use of Module 5 as an experimental bioreactor followed, if successful, with adding Module 6 as a full bioreactor will increase the volume of landfill gas generated at the landfill. In addition to increased landfill gas, toxic air pollutants will also increase. Increases in the amount of landfill gas will require the evaluation of new landfill gas collection and control mechanisms. In addition, the increased in air toxic air pollutants is expected to cause the landfill to exceed the New Source Performance Standards and subjecting the landfill to significant new monitoring, recordkeeping, and reporting requirements. A total of 14 hours of effort will be required to perform these modeling activities and mapping the total gas being generated by the landfill.

4 – Landfill Gas Control Options

The increase in landfill gas resulting from continued landfill operations, bioreactor use, and/or partnership projects with the wastewater treatment plant must be accompanied by increased landfill gas control. The replacement of one of the existing engines with a larger engine will utilize some fraction of the generated gas. Since the existing transformer will limit the addition of more electrical generation equipment, a flare will need to be considered. Other options may be to identify a third party consumer, add a new landfill gas to energy plant in concert with the wastewater treatment plant, or identify other beneficial use projects. A gross cost/benefit analysis for the use of gas turbines versus engines, gasification or liquefaction plants, or other existing technologies will also be included in the discussion. Shaw will identify existing development projects (for example, EPA is currently funding a number of innovative projects), summarize each project, and identify those that are potentially applicable at the landfill. Grant money is available for advanced renewable fuel uses. This option will be included in any analysis of the various project options. A limit of 30 hours of technical effort has been established to create a list of options and provide estimated cost information and commercial availability.

5 – Reporting

Three specific deliverables are anticipated from this project. The first is a time line of known and anticipated activities that will result from the present legislation and from the various options for management of the landfill and the resulting landfill gas generation into the future. At this time, a 10-year horizon seems appropriate, but may be extended as appropriate in order to clearly map future activities.

The second deliverable will be a technical report describing each of the regulations, compliance requirements, control technology options, and other information gathered during the execution of the project. The report will be prepared in draft form for review by the MRWMD staff then published as a final version.

The final deliverable will be the presentation materials and the presentation to the staff and the Board of Directors. The purpose is to identify current and future legislation that is expected to impact the MRWMD and the options that are currently and potentially available to address the requirements.

A total of 40 hours of technical effort is estimated to be required to prepare and present these three deliverables.

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BUDGET ESTIMATE

Shaw will complete the proposed air quality scope of work on a time and materials basis for an estimated cost of \$15,000.00. Shaw will not incur costs that exceed this budget estimate without obtaining your written approval. This work will be completed in accordance with our Professional Services Agreement attached. Please initial each page and sign in the space provided on page 4 and return the original to Shaw. You may fax it to (408) 433-1912 (Attn. Richard S. Merrill).

BUDGET ESTIMATE

Item	Item Description	Cost Estimate (\$)
1	Legislative Review	2,650
2	Promulgated Regulatory Tracking	2,390
3	Perform Gas Modeling	1,730
4	Landfill Gas Control Options	3,280
5	Reporting	4,670
	Labor Total	14,720
	Other Costs	280
	Project Total	\$15,000

The total duration of the project is from September 1 through December 31, 2007.

ASSUMPTIONS

Shaw's proposed budget is based on the details provided in this proposal. Should the scope of work need to be modified, the total cost of services, with your prior approval, will be adjusted accordingly. This proposal is based on the following assumptions:

- The MRWMD will provide requested data and information relevant to this project.
- A MRWMD representative for the site will be identified from whom information can be obtained.
- Four site visits will be necessary to complete this project and are included in the budget estimate.
- One review cycle to address comments on each draft report has been included in the cost estimate.

We look forward to the opportunity of continuing to work with you.