



# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** Jose Obregon

**SUBJECT:** SEE BELOW

**DATE:** June 1, 2004

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Approved

Date

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**SUBJECT: REPORT ON RFP FOR LABORATORY INFORMATION  
MANAGEMENT SYSTEM (LIMS) FOR THE ENVIRONMENTAL  
SERVICES DEPARTMENT**

## **RECOMMENDATION**

Adoption of a resolution authorizing the Director of General Services to:

1. Execute an agreement with PerkinElmer LAS, Inc. (Shelton, CT) for the purchase and implementation of an integrated Laboratory Information Management System (LIMS) in an amount not to exceed \$397,223, including sales tax, system delivery, installation, staff training and a three (3) year maintenance plan.
2. Execute change orders to the Agreement in an amount not to exceed \$38,600 for any additional, unanticipated requirements encountered during the implementation process for this project.

## **BACKGROUND**

In response to findings and recommendations made by the City Auditor in 2000 and 2001, the Environmental Services Department (ESD) developed a phased strategy to integrate and consolidate all of its mission critical environmental data systems.

**Phase 1:** On April 15, 2003 (item 7.2) Council approved the purchase and implementation of an Environmental Enforcement Data Management System (EEDMS). Subsequently, EEDMS has successfully addressed the Auditor's audit recommendations.

**Phase 2:** The acquisition of a new LIMS represents the next phase of ESD's strategy to implement an integrated departmental data management system, which is critical due to the regulatory nature of the ESD's mission.

The Environmental Services Department's (ESD) Water Pollution Control Plant Laboratory performs over 50,000 tests annually, handling a wide range of analytical determinations in the areas of microbiology, toxicology, trace-level contaminants, and general chemistry. These test results are reported to the Treatment Plant, the Pretreatment Program, the Stormwater Program, South Bay Water Recycling and other City Departments as required for compliance with Federal and State environmental laws and regulations. Currently, the Laboratory utilizes obsolete and incompatible information management tools to manage the high volume of technical data and analytical activities relating to these tests.

Currently, the process employed is a manual system of logging, sampling and tracking, which is labor intensive and prone to human errors and inefficiencies. The acquisition and implementation of a LIMS will improve accuracy, speed, overall efficiency and effectiveness through automation features. Other benefits include bar coding capabilities, remote data access, enhanced data management, storage, data analysis, queries and reports.

## **ANALYSIS**

On September 24, 2003, a Request for Information (RFI) was advertised to gather information from the industry for a LIMS software solution. The information gathered was used by City staff to develop detailed specifications for a LIMS Request for Proposal (RFP). Fourteen companies responded to the RFI document.

The RFP was advertised on the City's Internet site on January 30, 2004. Thirty-six companies requested the RFP, twelve companies attended the mandatory pre-proposal conference which was held on March 16, 2004, and seven companies submitted proposals by the March 16, 2004 deadline. All seven proposals met the minimum requirements and were determined to be responsive.

Proposals were evaluated based on a three-phase review consisting of:

- Phase 1 - evaluation of the written proposals received;
- Phase 2 - evaluation of product demonstrations for companies receiving the highest written proposal scores; and,
- Phase 3 – Proposal Costs

### **Phase 1 - Written Proposal Evaluation**

The Evaluation Committee was comprised of a cross-functional team with ESD and Information Technology (IT) staff representing specific areas of expertise. Additionally, other Staff members were selected as subject matter experts to focus their review on specific components of the proposal. Each proposal was evaluated against specific selection criteria as specified in the RFP; technical, functional, project management, and ease-of-use.

At the conclusion of the written proposal evaluation, it was determined that the top four technically ranked companies would make the short list and be invited to participate in oral interviews and product demonstrations as summarized in the Table A below:

Company Name/HQ Location	Product Name	Technical Score	Project Management Score	Total Score	Technical Rank	Percent of High Score
PerkinElmer LAS Inc., Shelton, CT	LabWorks	1253	781	2034	1	--
Accelerated Technology Laboratories (ATL), WestEnd, NC	SampleMaster	993	584	1577	2	78%
Ops Systems (Teleaction Division), Rio Rancho, NM	Aspen	948	587	1535	3	75%
Desert Moon Technologies (DMT), Phoenix, AZ	LabPlus	1005	425	1430	4	70%
Promium LLC, Bothell, WA	Element	803	544	1347	5	66%
LabWare Inc., Wilmington, DE	LabWare	854	449	1303	6	64%
Deep Technology, San Jose, CA	None	421	125	546	7	27%

Table A

**Phase 2 - Oral Interview and Product Demonstration**

The top four technically ranked companies were invited for oral interviews and product demonstrations. A second evaluation panel was formed which included representation from ESD, IT, General Services, and the East Bay Municipal Utility District. Each company was requested to provide a product demonstration based on a specific list of required features and functionality. In addition, each company was asked a set of interview questions designed to clarify their written proposals, and confirm their understanding of the City’s requirements and specifications. At the conclusion of this phase, the evaluation panel concluded that the presentations sufficiently clarified each company’s written proposal, with the oral interview and product demonstration process reconfirming the scores and rankings per Table A.

The following is a brief summary from the evaluation team for each finalist:

PerkinElmer Labworks provided the most detailed and comprehensive management plan, and demonstrated a superior understanding of the City’s specific requirements and the wastewater industry overall. Their proposed product (LabWorks) has proven experience in over 400 installations. PerkinElmer met or exceeded all of the RFP specifications.

Accelerated Technology Laboratories (ATL) SampleMaster Pro lacked specific strategies for implementation and data migration, with deliverables and milestones to be determined after the award of contract. Their proposal did not include a required statistical software package that would have to be purchased separately by the City. Selection of ATL would also require significant additional technical resources for data cleansing services.

Ops System Inc., (Telecation) Aspen's proposed product would require significant data manipulation outside of the main program. The product lacked an integrated statistical software package as required in the RFP, as well as functionality or robustness in several software components such as sample tracing, sample generation sheets, instrument interfaces, and automatic notifications.

Desert Moon Technologies – Lab Plus (DMT) would require City staff time to configure the system and lacked several key requirements such as interface with a statistical analysis package, automated sample tracking, automatic result flagging, and automatic notification capability. DMT was unable to demonstrate many of the required product functionality during their product demonstration.

**Phase 3 - Cost Evaluation**

After the technical scores and rankings were agreed upon, cost proposals were opened and reviewed by the Phase 1 and Phase 2 evaluation teams.

Cost proposals (sorted by highest to lowest cost) for the four finalists are summarized in Table B:

<b>Company Name/HQ Location</b>	<b>Product Name</b>	<b>Score</b>	<b>Total Cost (including tax)</b>	<b>Technical Rank</b>	<b>% of High Price</b>
PerkinElmer LAS Inc., Shelton, CT	LabWorks	2034	\$397,223	1	--
Desert Moon Technologies (DMT), Phoenix, AZ	LabPlus	1430	\$361,884	4	91%
Ops Systems (Telecation Division), Rio Rancho, NM	Aspen	1535	\$273,138	3	69%
Accelerated Technology Laboratories (ATL), WestEnd, NC	SampleMaster	1577	\$235,818	2	59%

Table B

Desert Moon was subsequently eliminated from further consideration because of their low technical score, which was 30% lower than #1 ranked PerkinElmer, and did not support their relatively high price.

Although PerkinElmer submitted the highest total cost at approximately 40% and 30% more than Accelerated Technology and Ops Systems, respectively, it is important to note that PerkinElmer scored 22% and 25% higher than Accelerated Technology and Ops Systems, on the technical evaluation, respectively. Table C below summarizes the key features, functionality, and services that were not adequately addressed by Accelerated Technology or Ops Systems in either phase 1 or phase 2 of the evaluation process, and estimates the additional cost of bringing these features up to the standards of PerkinElmer:

Feature, Function, or Service	Accelerated Technology	Ops Systems
	estimated additional cost	
System Implementation not adequately demonstrated	\$20,000	\$0
System Configuration/Custom report writing not adequately demonstrated	\$20,000	\$20,000
3 <sup>rd</sup> Party interfaces not adequately demonstrated	\$20,000	\$30,000
Data Migration did not adequately address data migration strategy to satisfaction of evaluation team, or include data cleansing	\$30,000	\$30,000
3 <sup>rd</sup> Party Software did not adequately demonstrate required 3 <sup>rd</sup> party software for statistical analysis, remote access, barcoding and report writing	\$10,000	\$10,000
On-site maintenance as required not adequately demonstrated	\$15,000	\$8,000
<b>TOTAL ESTIMATED ADJUSTMENT</b>	<b>\$115,000</b>	<b>\$98,000</b>

Table C

Recommendation: Staff recommends PerkinElmer because their proposed solution was deemed most advantageous and “best value” for the City. The PerkinElmer solution will enable the City to meet its complex and rigorous Environmental Protection Agency (EPA) certified laboratory requirements and regulatory compliance without compromising process versatility.

Managed Competition (Contracting-In)

The City does not have the software engineering expertise or capability to develop a state-of-the-art laboratory management information system.

**PUBLIC OUTREACH**

Posted on City website and advertised in the BidNet national e-procurement tool.

**COORDINATION**

This memorandum has been coordinated with the Environmental Services Department, Information Technology Department, the City Manager’s Budget Office, and the Office of the City Attorney.

This recommendation is scheduled to be presented to the Treatment Plant Advisory Committee (TPAC) on June 10, 2004.

**COST IMPLICATIONS**

The investment proposed in this recommendation is being advanced at this time to continue implementation of a phased strategy to integrate and consolidate environmental data systems and to ensure efficient sample analysis and data tracking. This recommendation will be funded primarily by the Treatment Plant Capital Fund (512), therefore it will have no adverse impact on

the General Fund. Any non Treatment Plant related testing will be charged back to requesting program or City Department as appropriate and is anticipated to be less than 1%. This project will also require the purchase of additional computer equipment in an amount not to exceed \$60,000 to support LIMS. The total cost of this project is not to exceed \$495,823. Existing funds are available in the current budget for the Treatment Plant Capital Fund (512) to cover this cost. After the three year annual maintenance included in this request, continued annual maintenance thereafter is expected to be approximately \$27,250.

This Council item is consistent with General Principle #2, “We must focus on protecting our vital core city services”, and Item #7 “We must continue to streamline, innovate, and simplify our operations...so that we can deliver services at a higher quality level, with better flexibility, at a lower cost.”

**BUDGET REFERENCE**

Fund #	Appn. #	Appn. Name	Total Appn.	Amount of Order.	2003-2004 Adopted Capital Budget	Last Budget Action (Date, Ord. No.)
512	#4691	Lab Information Management System Replacement	\$500,000	\$435,823	Page 205	NA

**CEQA**

Not a project

JOSE OBREGON  
Director of General Services