**EAST BAY MUNICIPAL UTILITY DISTRICT**

**Laboratory Information Management System**


**Request for Information
Questions & Responses**


**March 2, 2018**

# 1.0 Questions and Responses

1. Whether companies from Outside USA can apply for this? (like, from India or Canada)
   **Answer:** Yes. Companies outside of USA can submit proposal for RFI.

2. Whether we need to come over there for meetings?
   **Answer:** After RFI responses are received we will review the RFI responses and invite Vendors for demo and discussion. The demo and discussion be either onsite or via WebEx.

3. Can we perform the tasks (related to RFP) outside USA? (like, from India or Canada)
   **Answer:** This is a Request for Information. Vendor might be invited to give a demo. Vendor can decide to give the demo onsite or via WebEx. No contract will be awarded as a result of this RFI process. If EBMUD decides to move forward with an RFP, a contract is expected to result from that process.

4. Can we submit the proposals via email?
   **Answer:** Yes. Responses can be submitted via email.

5. How many hard copies should vendors submit?
   **Answer:** Just one hard copy is sufficient. Email is preferred.

6. The RFI indicates that EBMUD currently has access to 20+ years of historical data through the Oracle data warehouse. Will the new LIMS need to interface with the Data Warehouse or will EBMUD require migration of historical data? If so, how many years of data will need to be migrated?
   **Answer:** New LIMS need to interface with the Data Warehouse. Some historical Data will likely need to be migrated but no final decision has been made on data migration.

7. Is there is a limit on the size of the response the LIMS RFP. I have a number of imbedded documents in our response it will be over 20MB, so if I need to put it on a memory stick and send it in.
   **Answer:** All email responses should be less than 20MB. Send the response in a memory stick if file size exceeds 20 MB.

8. Many of the answers to the questions in the requirements Excel Spreadsheet can be answered as "out of the box" functionality. Is that an acceptable way to answer a lot of the requirements?
   **Answer:** YES. In the RFI response document, please indicate the requirements ID that are not "out of the box".

9. Does EBMUD have a preference for an on-premise system or a cloud hosted system?
   **Answer:** No preference.

10. Has a budget already been allocated by EBMUD for a LIMS?
    **Answer:** Yes

11. What is the expected budget for a LIMS?
    **Answer:** We ask that vendors submit pricing with proposals.

12. Is EBMUD looking for formal quotes from vendors, or only a Total Cost of Ownership over 10 years?
    **Answer:** Please provide the break-down of the cost for implementation and a 10 years lifecycle cost.

13. Are we supposed to put in the following 3 items for all 1175 requirements in the spreadsheet? If that is the case, if we spend 5 minutes on each response, that it 2 1/2 weeks of work! Also, these 3 responses do not make sense for a lot of the requirements where a simple "out of the box functionality" would be more appropriate. Can you clarify the responses required for the spreadsheet? In the response column, please provide the following information
    **Answer:** If it is simple Out-of-Box, specify that in the "Solution Type" Column. In the response section, you could explain briefly if there are any special information is required by your system to meet the EBMUD's Requirements.

14. Many of the answers to the questions in the requirements Excel Spreadsheet can be answered as "out of the box" functionality. Is that an acceptable way to answer a lot of the requirements?
    **Answer:** If it is simple Out-of-Box, specify that in the "Solution Type" Column. In the response section, you could explain briefly if there are any special information is required by your system to meet the EBMUD' s Requirements.

15. Is there a list of systems that will need to be integrated with LIMS? Will any of these interfaces need to go both directions? If so, which ones?
    **Answer:** We want the new LIMS to integrate with Accounting, Inventory Management System and other EBMUD application wherever applicable. Please explain the possible ways your system can integrate with other EBMUD systems.

16. Requirement ID 5.5 Data Conversion – This section asks about the tools used in the data mapping phase. Does this speak to the migration of static data (methods, customers, analytes), or historical data?
    **Answer:** Migration of historical data, instrument output file uploads etc.

17. Is there a list of instruments to be integrated? Will any of these instruments need to be integrated in both directions? If so, which ones?
    **Answer:** We have about 30 instruments that need to be integrated with LIMS. Majority of the integration will be from instruments to LIMS. Few might require bi-directional integration. The instrument list will be provided in the RFP. In the RFI response, please briefly explain the ways your system can integrate with the instruments.

18. How many instruments would EBMUD like to integrate? Can we be provided with a list to provide a price for our solution?
**Answer:** We have about 30 instruments that need to be integrated with LIMS. Majority of the integration will be from instruments to LIMS. Few might require bi-directional integration. The instrument list will be provided in the RFP. In the RFI response, please briefly explain the ways your system can integrate with the instruments.

19. How many mobile users will be using tablets/smart phones in the field or at the bench to enter results data?
**Answer:** Estimated: 20

20. Will EBMUD want to manage DMR through the LIMS?
**Answer:** Yes. But we are looking for a generic output file, rather a specific output for each type of report.

21.  Will EBMUD want to issue quotes/invoices through the LIMS?
**Answer:** Yes

22. Is there a need to track/manage containers?
**Answer:** Yes

23. Is bar coding in use currently? Will scanners and printers be purchased as part of the LIMS procurement? If so, how many? Preference for 1D/2D
**Answer:** No preference. We currently use 1D bar codes. We may purchase scanners and printers depending on solution offered. See Section 13 for requirements.

24.  How many contract labs? Will a standardized format work for most labs?
**Answer:** Contract labs about 10. Standard format will do.

25. General System Requirement item 8.26 – could you elaborate on what is meant by program maps?
**Answer:** Please disregard requirement, under further evaluation.

26. General System Requirement item 3.1 – could you elaborate on what a Budget Unit is?
**Answer:** Budget unit is a unique identifier associated to a division within the EBMUD. Budget Unit is used for the accounting purpose.

27. General System Requirement items 36.1-36.5 – could you provide examples of the reports mentioned in order to help determine configuration costs?
**Answer:** We want know the list of standard regulatory reports that are generated by your system. Please explain the possible types of output files that your system can generate.

28. General System Requirement item 37.21 – Is having a data connector to complex systems such as NWA acceptable?
**Answer:** Yes.

29. Requirement 2.6 States *The LIMS will support use of ELN System.* Is EBMUD currently utilizing an ELN? What functionality will be needed from an ELN?
**Answer:** We currently do not employ an ELN system. We are open to implementation of one. We primarily utilize printed worksheets.

30. Requirement 31.14 States The system will be able to link to concurrent reference toxicant analyses. Would EBMUD provide additional information on this requirement?
**Answer:** All bioassays require a concurrent reference toxicant analysis using the same batch of test organisms. Sample analysis and reference toxicant analysis are always in the same analytical batch. However, there are instances the reference toxicant analysis is "shared" between multiple analytical batches. Instead of having the data entered into LIMS multiple times for the different analytical batches, we are asking for the flexibility of referencing to only one data entry.'

31. Requirement 49.17 States *The system will indicate visually when reagents/standards/media are approaching expiration or are expired.* Does EBMUD require the visual indicator to be a specific color, or is the visibility of the expiration date sufficient?
**Answer:** We're open to "how" the system will indicate expiration is approaching or has expired; we expect the system to distinguish beyond black and white text. The intent is to have some of visual cue whether it's some sort of notification system, and/or colored/highlighted text changes on screen.

32. Requirement 49.24 States *The system will associate the parent control culture stock used in the creation of daughter culture.* Would EBMUD provide additional information relative to the specific needs for 49.24 (1-3)
**Answer:** Each parent control culture stock can only be used for up to 5 passes (generations), i.e. Parent → Generation 1 Daughter → Generation 2 Daughter → Generation 3 Daughter → Generation 4 Daughter → Generation 5 Daughter. Please note that there is no limit on the number of daughter cultures at each generation but can have only up to 5 generations. This is what needs to be captured by the system.

33. Requirement ID 5.6 Mobile Options – This section asks about mobile access. What functionality will users need access to remotely? Is this for entry of field data/results, or full access to the LIMS?
**Answer:** With respect in the field mobile access, field sampler would have limited access to LIMS, primarily to record collection and field data such as on the CoC.

34. Requirement ID 11.6.3 – Is it expected that the flow data will be populated automatically or manually in LIMS (will an interface to an external system be needed)? What is the source of the flow data (system type, vendor and product name)? Is it possible to supply an example of the desired worksheet?
**Answer:** Below is the sample

## FACILITY: SD-1 MWWTP WWTP EFF

**Login**: LXXXXXX-1 through -24 composited to LXXXXXX-1
**Sample Dates**: DD-MM-YY to DD-MMM-YY

**Add login comment "Worksheet attached"**

<span style="color:red">**COMPOSITED ON DD-SMM-YY @ HH:MM BY** _____</span>

| HR # | TIME | EFF IPS Flow | Volume of Sample in mLs | | | |
|---|---|---|---|---|---|---|
| | | | for TSS | For BOD | For +SAVE | Total Volume |
| | | | 1000 | 1000 | 1000 | |
| 1 | 13:00 | 51 | 39 | 39 | 39 | 120 |
| 2 | 14:00 | 46 | 35 | 35 | 35 | 110 |
| 3 | 15:00 | 48 | 37 | 37 | 37 | 110 |
| 4 | 16:00 | 46 | 35 | 35 | 35 | 110 |
| 5 | 17:00 | 47 | 36 | 36 | 36 | 110 |
| 6 | 18:00 | 53 | 41 | 41 | 41 | 120 |
| 7 | 19:00 | 56 | 43 | 43 | 43 | 130 |
| 8 | 20:00 | 68 | 53 | 53 | 53 | 160 |
| 9 | 21:00 | 72 | 56 | 56 | 56 | 170 |
| 10 | 22:00 | 70 | 54 | 54 | 54 | 160 |
| 11 | 23:00 | 66 | 51 | 51 | 51 | 150 |
| 12 | 0:00 | 59 | 46 | 46 | 46 | 140 |
| 13 | 1:00 | 51 | 39 | 39 | 39 | 120 |
| 14 | 2:00 | 49 | 38 | 38 | 38 | 110 |
| 15 | 3:00 | 45 | 35 | 35 | 35 | 100 |
| 16 | 4:00 | 45 | 35 | 35 | 35 | 100 |
| 17 | 5:00 | 45 | 35 | 35 | 35 | 110 |
| 18 | 6:00 | 45 | 35 | 35 | 35 | 100 |
| 19 | 7:00 | 46 | 35 | 35 | 35 | 110 |
| 20 | 8:00 | 49 | 38 | 38 | 38 | 110 |
| 21 | 9:00 | 55 | 42 | 42 | 42 | 130 |
| 22 | 10:00 | 65 | 50 | 50 | 50 | 150 |
| 23 | 11:00 | 59 | 45 | 45 | 45 | 140 |
| 24 | 12:00 | 60 | 46 | 46 | 46 | 140 |

| | total flow: | 1296.372742 | | Total Volume | **3000** |
|---|---|---|---|---|---|

35. Requirement ID 18.1.6 – Automatically updating vendor codes would require an interface.  Is this the desired functionality?  How often are vendor codes updated?  What system will the LIMS pull this data from, and is the data limited to vendor codes? **Answer:** This requirement more focused on tracking billing associated with subcontracted laboratories. We currently don't interface with EBMUD Purchasing unit. Limited financial data is exchanged with our financial system primarily PO Numbers and Dollars. We would like improved financial tracking of subcontracted laboratories.

36. Requirement ID 20.11 – Is a specific report format desired?  If so, please supply an example.
   **Answer:** No, should contain requirements 20.11.1 – 20.11.10.

37. General System Requirement item 37.21 – Is having a data connector to complex systems such as NWA acceptable?
   **Answer:** Yes.

38. Requirement ID 24.24.3 – Which QC calculations are desired?
   **Answer:** Standard environmental lab QC calculations such as Relative Percent Difference, Percent Recovery, etc.

39. Requirement ID 26.11 – Please provide examples of desired basic calculations.
   **Answer:** Example, MDL, Dilution Factor, etc.

40. Requirement ID 26.11.2 – Please provide examples of desired complex calculations with look-up tables.
   **Answer:** Example: MPN Table Standard Method, EPA Method 1600

41. Requirement ID 31.14 – Please clarify.
   **Answer:** All bioassays require a concurrent reference toxicant analysis using the same batch of test organisms. Sample analysis and reference toxicant analysis are always in the same analytical batch. However, there are instances the reference toxicant analysis is "shared" between multiple analytical batches. Instead of having the data entered into LIMS multiple times for the different analytical batches, we are asking for the flexibility of referencing to only one data entry.

42. Could you please elaborate on the definition and requirement surrounding the following topics:
   a. Please explain the meaning of a Budget Unit and provide an example?
      **Answer:** Budget unit is a unique identifier associated to a division within the EBMUD. Budget Unit is used for the accounting purpose.

   b. Please explain the meaning of a Program and provide an example?
      **Answer:** Program describes the on-going monitoring requirements, such as Total Coliform Rule or NPDES.

43. In the Client Management functionality,
   a. What type of notifications?
      **Answer:** Typically, an email notification.

   b. What type of information in the client self-service queries?
      **Answer:** Since clients are generally internal EBMUD work groups, we'd like them to have the ability to have a robust querying/report tool to access their lab reports, and allow them to perform their own queries.

44. Record Program Info
    a. The system will have the ability to link a project to an outside document – where is this document located?
    **Answer:** EBMUD has an internally developed, web-based document management system; it can provide static link to individual documents. Ideally, new LIMS will allow for hyperlinks. However, we might like to see how new LIMS would have flexibility in attaching/linking/referencing documents.

    b. The system will link to program maps – where are these located/hosted?
    **Answer:** Please disregard requirement, under further evaluation.

    c. The system will have program corrective action capabilities – Can you please elaborate on what this means?
    **Answer:** This is in regards to when a client request triggers an internal audit, and findings require correction actions with respect to the Program.

45. Approximately how many other concurrent users from other departments within the district are expected to access the LIMS?
    **Answer:** There will be approximately 20 concurrent lab users. There may be up to 20 in the field samplers that only need limited access to LIMS. LIMS data would be accessible to select District employees (gross estimate of 50 individuals).

46. Requirement ID 15.1.1. The system will validate against EBMUD employee directory to populate/auto-complete employee name or employee ID number interchangeably, but also allow for entering non-District employee names (Please provide more details on this requirement. Is this your single sign-on?)
    **Answer:** Yes, we require single sign on. Describe the methods you support for SSO.

47. Requirement ID 18.1.6. The system will capture the EBMUD vendor code from purchasing to link to our system to make tracking of costs easier (Is there a purchasing system that will be interfaced to LIMS? What information, other than codes, are being sent to LIMS? Will LIMS being sending additional information back to the 3rd party system?)
    **Answer:** This requirement more focused on tracking billing associated with subcontracted laboratories. We currently don't interface with EBMUD Purchasing unit. Limited financial data is exchanged with our financial system primarily PO Numbers and Dollars. We would like improved financial tracking of subcontracted laboratories.

48. Requirement ID 26.8. The system will support bi-directional communication with ELNs (What information are you looking to send back and forth to LIMS and ELN?)
    **Answer:** We currently do not employ an ELN system, but are receptive to one. We generally use printed worksheets.

49. Requirement ID 29.22.10. Error codes (Please provide more details on your error codes)
    **Answer:** This is an actual data field in the file exported by BOD instrument just like Sample ID 29.22.2.

50. Requirement ID 29.22.11.  Seed correction factor  (Please provide more details on Seed correction factor)
    **Answer:** This is an actual data field in the file exported by BOD instrument just like Sample ID 29.22.2 and this information must be included in data upload.

51. Requirement ID 29.24. The system will integrate with dynamic worksheets for microbiology analyses (Please provide details on the dynamic worksheets you are using)
    **Answer:** The goal is to replace recording data on paper worksheets with data entry on tablets. The term dynamic worksheets refers to the capability of these worksheets on tablets to alert analysts of data entry outside of the method allowed time frame, i.e. for Sample A set up at 12 noon on Day 1, the method allowed 24-hr read time would be from 10 am to 2 pm of Day 2, and the worksheet on the tablet would prompt analyst of read time outside of appropriate window upon data entry.

52. Requirement ID 39. Track Demonstration of Capabilities (DOCs) (Please provide more description of the DOCs)
    **Answer:** See TNI 2016 Standard.

53. Requirement ID 51.1.1. The system will have the ability to maintain a Price Schedule (Is the price scheduled maintained for each customer?  Is there a general price schedule based on discount level?  Please provide more details on your meaning of price schedule)
    **Answer:** We have a global/standard price schedule. However, we need flexibility for client specific price schedules. Nice to have price escalation capability (e.g. inflation changes). Like to have ability to include discount pricing and rush charges.

54. General System Requirement item 51.1.3 – Could you provide examples of what type of reports would be needed?
    **Answer:** We want know the list of standard regulatory reports that are generated by your system. Please explain the possible types of output files that your system can generate.

55. Please define data stored by the following elements:
    a.  Budget Unit – define what this means?
    **Answer:** Budget unit is a unique identifier associated to a division within the EBMUD. Budget Unit is used for the accounting purpose.

    b.  Program – define what this means?
    **Answer:** Program describes the on-going monitoring requirements, such as Total Coliform Rule or NPDES.