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Glossary ................................................................................................................................. 56

Response Rate

<p>| | | |</p>
<table>
<thead>
<tr>
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Completion by State

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<th>States* that completed survey</th>
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<th>88%</th>
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<td>States that did not complete survey</td>
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*Includes the 50 states and the District of Columbia
1. Who is completing this survey?

<table>
<thead>
<tr>
<th>Answer</th>
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<tr>
<td>Other, please provide role:</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Environmental Laboratory Director</td>
<td></td>
<td>23</td>
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<tr>
<td>Environmental Laboratory Supervisor</td>
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<td>5</td>
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<tr>
<td>Total</td>
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</table>

Other specified roles:

12 “Lab Director”

- Analytical Chemistry Director State Public Health Laboratory
- Analytical Chemistry Division Manager
- Bureau Director
- Consolidated State Lab Director
- Deputy Division Director
- Deputy Lab Director
- Director, Division of Chemistry and Toxicology
- Emergency Preparedness Coordinator
- Laboratory Bureau Chief
- Laboratory Quality Assurance Officer
- Lead Scientist - Chemical Warfare Agent Analysis
- State Training Coordinator
- Technical Director
2. Where does your laboratory reside?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
</table>
| Department of Health                                     | 41       | 77%
| Other-please specify:                                    | 2        | 4%
| Department of Environmental Protection*                 | 4        | 7%
| Department of Natural Resources                          | 3        | 6%
| University                                               | 3        | 6%
| Department of Agriculture                                | 0        | 0%
| Total                                                    | 53       | 100% |

*Includes the Department of Environmental Quality

Other specified responses:
- State Division of Parks and Wildlife
- Department of General Services

2a. Your laboratory is a:

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
</table>
| State Agency       | 52       | 98%
| Local Agency       | 1        | 2%
| Other              | 0        | 0%
| Total              | 53       | 100% |
3. For each Analytical Service listed below please check if the service is performed by your laboratory (for clinical samples this may include metabolites). Note that all matrices may not be applicable to each analyte.

<table>
<thead>
<tr>
<th>Question</th>
<th>Air</th>
<th>Drinking Water</th>
<th>Other Water</th>
<th>Soil/Sediment</th>
<th>Blood</th>
<th>Urine</th>
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<tr>
<td><strong>Microbiology</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Total Coliform</td>
<td>1</td>
<td>43</td>
<td>37</td>
<td>6</td>
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<td>Fecal Coliform</td>
<td>1</td>
<td>32</td>
<td>33</td>
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<tr>
<td>E. Coli</td>
<td>1</td>
<td>41</td>
<td>36</td>
<td>8</td>
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<tr>
<td>Enterococci</td>
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<td>17</td>
<td>24</td>
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<td>Inorganic Chemicals</td>
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<td>Percolorate (314)</td>
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<td>Cyanide</td>
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<td>34</td>
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<td>Fluoride</td>
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<td>Stontium-89, 90</td>
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<td>2</td>
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<td>Uranium</td>
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<td>4</td>
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<td>2</td>
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<td>2</td>
</tr>
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<td>-----------------------------</td>
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<td><strong>Section Total</strong></td>
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<td>243</td>
<td>203</td>
<td>110</td>
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<td>32</td>
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<td><strong>Whole Effluent Toxicity</strong></td>
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<tr>
<td>Fathead Minnow (P. promelas)</td>
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<td><strong>Grand Total</strong></td>
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<td>1,119</td>
<td>892</td>
<td>490</td>
<td>168</td>
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</table>

3a. Does your laboratory test for consumer products (lotions, toys, etc.)?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>36</td>
<td>68%</td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>
4. Please list other environmental testing conducted at your laboratory. If no additional tests are conducted, please type "None."

<table>
<thead>
<tr>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 responded “Seafood” (shellfish, algae, fish tissue)</td>
</tr>
<tr>
<td>13 responded “Nitrate and Nutrients” (phosphorous)</td>
</tr>
<tr>
<td>12 responded “None”</td>
</tr>
<tr>
<td>5 responded “Dairy” (milk)</td>
</tr>
<tr>
<td>1 responded “Biomonitoring”</td>
</tr>
<tr>
<td>Aldehydes</td>
</tr>
<tr>
<td>Barium, Beryllium, Thallium</td>
</tr>
<tr>
<td>BioWatch; Food testing of environmental swabs; shellfish; milk</td>
</tr>
<tr>
<td>Blue-green algae (microcystin and Anatoxin-A) in surface water</td>
</tr>
<tr>
<td>BT/CT unknowns</td>
</tr>
<tr>
<td>Chemical Warfare Agents - Soil, water Accelerants - soil DRO, GRO (identification only) - soil, water BOD, TOC, total solids, TDS, nitrate, nitrite, total phosphate, orthophosphate, TKN - water</td>
</tr>
<tr>
<td>Consumer products, ethnic medicines etc. tested infrequently, mainly as a result of consumer complaints.</td>
</tr>
<tr>
<td>Dust wipe for lead remediation</td>
</tr>
<tr>
<td>Enforcement and residue testing for Dept. of Agriculture; PSP in Shellfish</td>
</tr>
<tr>
<td>Environmental lead in dust wipes and paint chips</td>
</tr>
<tr>
<td>Fish tissue analysis for chlorinated pesticides, metals, and PCBs.</td>
</tr>
<tr>
<td>Fish tissue analysis organics and metals hazardous wastes organics and metals</td>
</tr>
<tr>
<td>Fish tissue for: PCBs, PBB, PBDE, Toxaphene, Organochlorine pesticides, Perflorinated compounds, metals, PAH Food: toxins White powders Environmental Lead/residence testing</td>
</tr>
<tr>
<td>Food (FERN), fish, fish feed, hisamine, C. perfingens in beach water, suspicious substances (LRN, SAP), Water Lab alliance, NAHLN for avian influenza &amp; swine influenza in animals, shellfish growing areas and meats, air quality (particulates, SO2, CO, NO2, O3, specials), nutrients and contaminants in ambient water</td>
</tr>
<tr>
<td>Food Micro, Food Botulism, West Nile from mosquito pools, Rabies, Legionella from Water, BT agents</td>
</tr>
<tr>
<td>Food pathogens and BioWatch</td>
</tr>
<tr>
<td>Food Safety, Animal Health, USDA Slaughter, Dairy, Shellfish, Fish Meal</td>
</tr>
<tr>
<td>Food testing is performed in the environmental laboratory.</td>
</tr>
<tr>
<td>Food Unknown Substance</td>
</tr>
<tr>
<td>Heterotrophic plates counts (water); glycol in dairy water; salmonella in water</td>
</tr>
</tbody>
</table>
### Metals in tissues
- Microtox Toxicity Test - Water, Wastewater, Soil/Sediment
- Bacterial and viral pathogens and indicators - Culture methods and RT-qPCR - Water, Wastewater, Soil/Sediment
- Human/sewage-specific genetic markers in enterococci and Bacteroidetes by PCR - Water, Wastewater, Soil/Sediment
- Nutrients (N & P species) - Water and Wastewater
- Mercury & metals in fish tissue
- Hazardous waste characterization: TCLP - Mercury, metals, and VOCs
- Ignitability (flash point)
- Fluorescent whitening agents by HPLC

### Milk, Environmental Swabs & Water for Legionella species
- Nitrate-Nitrogen and Nitrite-Nitrogen in Drinking Water
- Fluoride in Drinking Water
- pH in Drinking Water
- Microbiology in Food
- Microbiology and Antibiotics in Dairy Products
- Select Agents in Environmental and Clinical Samples

### Nutrient Analyses
- Nutrients - nitrate/nitrite, ammonia, total phosphorus, total kjeldahl, nitrogen
- Biochemical Oxygen Demand (BOD), Total Organic Carbon (TOC)
- General Inorganic parameters - pH, conductivity, turbidity, alkalinity, hardness, color, silica, acidity, solids

### Oil and grease, Chlorophyll, Biochemical Oxygen Demand, Total organic carbon, Biologic coastal and stream assessments (water, flora & fauna), Algal growth surveys, Animal toxicity, Harmful algal bloom toxicity, Arson testing

### Pharmaceuticals and personal care products, Arsenic and mercury speciation, Biomonitoring for fatty acids

### PM 2.5; PM10; Ozone; NOx; SOx; Direct Hg analysis in tissues.

### RCRA
- Samples submitted for lead testing as part of the childhood lead poisoning program
- Samples submitted relating to various incidents of public health significance

### Screening of Pesticides in Fruits & Vegetables
- Screening of Pesticides in milk
- Determination of Mercury and PCBs in fish
- Detection of microbiological pathogens in food
- PBDE determination in fish pending FDA grant approval

### Suspect bioterrorism samples such as soil, water, etc.

### Trihalomethanes (THM's), Glyphosate, Heterotopic Plate Count
- Underground storage tanks, pesticides, BOD, Phosphorous, nitrogen, chlorophyll, chlorinated herbicides

### Unknown samples
- VOC's

We are a relatively full scope lab but many/most tests are covered on the survey matrix

We do not test consumer products or non-routine tests/matrices routinely, but we will test for non-routine substances if requested/needed such as in an emergency situation.

Wet Chemistry: Alkalinity, pH, BOD, Dissolved Oxygen, Turbidity, Solids: Total Suspended and Total Volatile, phosphorus, nitrate-nitrite, ammonia, total nitrogen, silica, TKN, COD. Organics: Diesel Range Organics, Carbonyls in Air
5. Does your laboratory have an unknown sample receipt area for suspicious substances?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>36</td>
<td>68%</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>32%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>

6. Does your laboratory submit data for the following EPA regulatory programs, either directly or indirectly? Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe Drinking Water Act (microbiology)</td>
<td>39</td>
<td>74%</td>
</tr>
<tr>
<td>Safe Drinking Water Act (chemistry)</td>
<td>38</td>
<td>72%</td>
</tr>
<tr>
<td>Clean Water Act</td>
<td>30</td>
<td>57%</td>
</tr>
<tr>
<td>Safe Drinking Water Act (radiochemistry)</td>
<td>28</td>
<td>53%</td>
</tr>
<tr>
<td>Clean Air Act</td>
<td>18</td>
<td>34%</td>
</tr>
<tr>
<td>Resource Conservation and Recovery Act</td>
<td>15</td>
<td>28%</td>
</tr>
<tr>
<td>Other, please specify:</td>
<td>9</td>
<td>17%</td>
</tr>
<tr>
<td>Comprehensive Environmental Response, Compensation, and Liability Act</td>
<td>9</td>
<td>17%</td>
</tr>
<tr>
<td>Total Responses</td>
<td>53</td>
<td></td>
</tr>
</tbody>
</table>

Other specified responses:

- 4 responded “None”
- BEACHES Act
- Environmental Lead Program
- EPA National Lakes Assessment
- FIFRA
- Have partnered with EPA Region 1 Lab to perform analysis for time sensitive Microbiology and Wet Chemistry analysis
Laboratories submitting data for the following EPA regulatory programs, either directly or indirectly

- Safe Drinking Water Act (microbiology): 74%
- Safe Drinking Water Act (chemistry): 72%
- Clean Water Act: 57%
- Safe Drinking Water Act (radiochemistry): 53%
- Clean Air Act: 34%
- Resource Conservation and Recovery Act: 28%
- Other—please specify: Comprehensive Environmental Response, Compensation, and Liability Act: 17%

EPA Regulations
7. Does your environmental laboratory have a LIMS (Laboratory Information Management System)?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>47</td>
<td>89%</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>11%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Please note: only those who answered “Yes” to question 7, answered questions 7a-10.*

7a. Which of these functions has your environmental laboratory implemented? Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sends electronic report in different formats</td>
<td>35</td>
<td>74%</td>
</tr>
<tr>
<td>Provides data exchange between automated analytical instruments and your LIMS</td>
<td>31</td>
<td>66%</td>
</tr>
<tr>
<td>Captures electronic QC data from your instruments</td>
<td>26</td>
<td>55%</td>
</tr>
<tr>
<td>Integrates with your public health infectious disease program</td>
<td>15</td>
<td>32%</td>
</tr>
<tr>
<td>Produces XML reports/messages for environmental data</td>
<td>15</td>
<td>32%</td>
</tr>
<tr>
<td>Reports electronic data deliverables that contain measurement quality objectives from laboratory-generated samples and substances such as surrogates, blanks, matrix spike, etc.</td>
<td>12</td>
<td>26%</td>
</tr>
<tr>
<td>Other-please specify:</td>
<td>10</td>
<td>21%</td>
</tr>
<tr>
<td>Reports electronic data deliverables that contain instrument quality control data such as initial calibration, continuing calibration verification results</td>
<td>7</td>
<td>15%</td>
</tr>
</tbody>
</table>

Total Responses 47
Other specified responses:

<table>
<thead>
<tr>
<th>Response</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A basic environmental chemistry sample report; billing reports</td>
<td></td>
</tr>
<tr>
<td>Ambient surface water EDDs</td>
<td></td>
</tr>
<tr>
<td>We have several systems that are not integrated</td>
<td></td>
</tr>
<tr>
<td>None of above: produces printed report</td>
<td></td>
</tr>
<tr>
<td>Capable of other features but not currently used</td>
<td></td>
</tr>
<tr>
<td>Sends data using HL7 messaging</td>
<td></td>
</tr>
<tr>
<td>QC data and the quality objectives listed above are not currently</td>
<td>implemented, but the Lab's LIMS has the ability to capture and transmit this data.</td>
</tr>
<tr>
<td>Note: Data exchange between instruments and LIMS is &quot;sneaker tracked&quot; as</td>
<td>a result of ITs unwillingness to connect instruments to their network.</td>
</tr>
<tr>
<td>HTML through our automatic reporter-message manager and .pdfs through</td>
<td></td>
</tr>
<tr>
<td>message manager</td>
<td></td>
</tr>
<tr>
<td>Captures for about 30% of the tests for those marked above.</td>
<td></td>
</tr>
</tbody>
</table>
### 8. Who is your environmental laboratory LIMS provider?

<table>
<thead>
<tr>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 responded “StarLims”</td>
</tr>
<tr>
<td>5 responded “Chemware”</td>
</tr>
<tr>
<td>4 responded “LabWare”</td>
</tr>
<tr>
<td>4 responded “Promium”</td>
</tr>
<tr>
<td>Accelerated Technology Laboratories, Inc. (Sample Master Pro 2000 LIMS)</td>
</tr>
<tr>
<td>Accelerated Technology Laboratories, Inc. - (LIMS name - Sample Master)</td>
</tr>
<tr>
<td>appx, moving to Labware LIMS</td>
</tr>
<tr>
<td>ATL</td>
</tr>
<tr>
<td>Blaze Inc.</td>
</tr>
<tr>
<td>Chemistry-STARLIMS, Microbiology-Global Environmental Consulting-Safe Water Electronic Entry Tool (SWEET)</td>
</tr>
<tr>
<td>Chemware (transitioning from an inhouse system)</td>
</tr>
<tr>
<td>Currently LabWorks; changing to StarLIMS in the near future.</td>
</tr>
<tr>
<td>Developed by &quot;in-house&quot; IT staff</td>
</tr>
<tr>
<td>EPIC</td>
</tr>
<tr>
<td>Epic Systems (Cohort) is the current provider, but is being phased out. We have begun implementation of LabWare. Implementation of the environmental laboratory begins in October, 2012.</td>
</tr>
<tr>
<td>Home grown FoxPro LIS</td>
</tr>
<tr>
<td>Inhouse Developed Product</td>
</tr>
<tr>
<td>LabWare (micro) and In-house (chemistry)</td>
</tr>
<tr>
<td>LITS+ in-house, contractor</td>
</tr>
<tr>
<td>Northwest Analytical and StarLims</td>
</tr>
<tr>
<td>Perkin Elmer</td>
</tr>
<tr>
<td>Perkin-Elmer, Labworks</td>
</tr>
<tr>
<td>Programs have contracted with Windsor Solutions to build systems rather than investing to develop environmental application with our StarLIMS software</td>
</tr>
<tr>
<td>Psyche</td>
</tr>
<tr>
<td>Sample Master</td>
</tr>
<tr>
<td>SQL/Informix</td>
</tr>
<tr>
<td>STARLIMS and LITS Plus</td>
</tr>
<tr>
<td>Telecations – Aspen</td>
</tr>
</tbody>
</table>

**Total Responses** 47
9. What IT support is available in your environmental laboratory?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralized IT resources from an organization</td>
<td>18</td>
<td>38%</td>
</tr>
<tr>
<td>larger than your laboratory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-house environmental laboratory IT staff</td>
<td>15</td>
<td>32%</td>
</tr>
<tr>
<td>Other- please specify:</td>
<td>9</td>
<td>19%</td>
</tr>
<tr>
<td>Shared IT staff with other laboratory(ies)</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>No IT support</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100%</td>
</tr>
</tbody>
</table>

Other specified responses:
- All 3 above
- A programmer outside of the laboratory, but not centralized
- Both centralized IT and vendor support
- Both In-house IT staff and centralized IT resources from statewide IT agency
- Both shared IT and Centralized IT
- Centralized IT resources as part of the Dept. of Health Services Agency and some in-house IT support
- In-house LIMS coordinator
- LIMS Administrators internal to lab
- Vendor support

9a. Is your IT staff capable of 24x7 support of your LIMS?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>29</td>
<td>63%</td>
</tr>
<tr>
<td>Yes</td>
<td>17</td>
<td>37%</td>
</tr>
<tr>
<td>Total*</td>
<td>46</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Please note that total response for this question is 46 due to a skip on question 9.
10. Has your environmental laboratory participated in electronic data sharing with other public health laboratories or public health agencies?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>25</td>
<td>53%</td>
</tr>
<tr>
<td>No</td>
<td>22</td>
<td>47%</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100%</td>
</tr>
</tbody>
</table>

11. Please complete the following table by checking the name of the organization which provides your laboratory with accreditation. Please check all that apply. Check the “Not accredited” column if your laboratory does not receive accreditation from the identified organization(s).

<table>
<thead>
<tr>
<th>Question</th>
<th>Accreditation is current</th>
<th>No longer accredited, but were accredited within the past 3 years</th>
<th>Not accredited, but anticipate to be accredited within the next 3 years</th>
<th>Not accredited</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>US EPA</td>
<td>43</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>53</td>
</tr>
<tr>
<td>CLIA (Clinical Laboratory Improvement Amendments)</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>53</td>
</tr>
<tr>
<td>State Sponsored Accreditation Program(s)</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>38</td>
<td>53</td>
</tr>
<tr>
<td>National Environmental Laboratory Accreditation Program (NELAP)</td>
<td>14</td>
<td>0</td>
<td>4</td>
<td>35</td>
<td>53</td>
</tr>
<tr>
<td>AIHA (American Industrial Hygiene Association)</td>
<td>10</td>
<td>1</td>
<td>0</td>
<td>42</td>
<td>53</td>
</tr>
<tr>
<td>CAP (College of American Pathologists)</td>
<td>9</td>
<td>0</td>
<td>3</td>
<td>41</td>
<td>53</td>
</tr>
<tr>
<td>ELLAP (Environmental Lead Laboratory Accreditation Program)</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>45</td>
<td>53</td>
</tr>
<tr>
<td>ISO 17025 (International)</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>42</td>
<td>53</td>
</tr>
<tr>
<td>Standards Organization)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>A2LA (American Association for Laboratory Accreditation)</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>48</td>
<td>53</td>
</tr>
<tr>
<td>SFT (Society of Forensic Toxicologists)</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>52</td>
<td>53</td>
</tr>
<tr>
<td>NIST/NVLAP (National Voluntary Laboratory Accreditation Program)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>50</td>
<td>53</td>
</tr>
<tr>
<td>ASCLD-LAB (American Society of Crime Lab Directors)</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>51</td>
<td>53</td>
</tr>
<tr>
<td>RTI-NLCP (Research Triangle Institute – National Laboratory Certification Program)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>53</td>
<td>53</td>
</tr>
</tbody>
</table>
11a. Are there any other organizations that provide your laboratory with accreditation?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>34</td>
<td>64%</td>
</tr>
<tr>
<td>Yes, please specify:</td>
<td>19</td>
<td>36%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>

Yes specified responses:

3 responded “FDA”
2 responded “Other states”
CDC Select Agent Program
FDA, CDC-LRN
FDA, Institute for Food Safety & Health
FDA, LRN-CDC
FDA, NAHLN, CDC SAP
FDA; EPA-terminology certified
FDA and USDA
FDA for dairy, ABFT for toxicology (not in our environmental lab)
Food and Drug Administration
OSHA, FDA, Select Agent Program
State Dept. of Agriculture (water micro)
USDA, FDA, NAHLN
USGS, USFDA
Yes, for other lab sections: CLIA, FQS (ISO17025)

12. Does your laboratory plan to drop any of the above accreditations?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>52</td>
<td>98%</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>
Please note: only those who answered “Yes” to question 12, answered question 12a.

12a. Please state the reasons for dropping your accreditation. Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other-please specify:</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>Change in legislation</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Benefits of a national accreditation standard not obvious to state</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Accrediting body utilizes 3rd party organization</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Accrediting body cannot accredit out of state laboratory</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Resource intensive</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Reduce/eliminate testing</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Funding</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Total Responses 1

Other specified response:
Replacing CLIA with CAP since CAP is more closely aligned to ISO standards.
13. **What prevents your environmental laboratory from seeking NELAP accreditation? Please select all that apply.**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits of NELAP accreditation not obvious to laboratory</td>
<td>17</td>
<td>44%</td>
</tr>
<tr>
<td>No requirement from data users to be certified/accredited beyond drinking water</td>
<td>16</td>
<td>41%</td>
</tr>
<tr>
<td>Level of participation by EPA</td>
<td>14</td>
<td>36%</td>
</tr>
<tr>
<td>Cost of application or renewal fees</td>
<td>13</td>
<td>33%</td>
</tr>
<tr>
<td>Lack of resources to implement requirements for NELAP or TNI standards</td>
<td>11</td>
<td>28%</td>
</tr>
<tr>
<td>Questions about NELAP's (or The NELAC Institute’s) legal authority without EPA presence</td>
<td>11</td>
<td>28%</td>
</tr>
<tr>
<td>Unable to justify paying another state</td>
<td>10</td>
<td>26%</td>
</tr>
<tr>
<td>Benefits of a national accreditation standard not obvious to laboratory</td>
<td>8</td>
<td>21%</td>
</tr>
<tr>
<td>Other – please specify:</td>
<td>7</td>
<td>18%</td>
</tr>
<tr>
<td>Instability of NELAP</td>
<td>5</td>
<td>13%</td>
</tr>
<tr>
<td>Laboratory falls within the same structural system as the accrediting body</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>None/Not interested</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>Cost of participating in 2 proficiency testing studies a year</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>Cost of implementing or maintaining quality system</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>TNI Standards change frequently</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>TNI Standards difficult to understand</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Other specified responses:

- EPA Accreditation appears to be sufficient
- GPHL is planning to perform testing in the future
- Lack of management support
- Our environmental lab certification program is a NELAP-recognized Accreditation Body (AB).
- Planning to move that direction with time
- We are currently seeking accreditation but are having trouble finding an accreditation body that can perform out of state assessments or that accredit for all of the fields of testing that we require
- We do not do environmental testing
14. Is your environmental laboratory certification program a NELAP-recognized Accreditation Body (AB)?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>37</td>
<td>70%</td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>30%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Please note: only those who answered “No” to question 14 answered questions 14a and 15.*

14a. What prevents your state environmental laboratory certification program from becoming a NELAP Accrediting Body (AB)? Please select all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits of NELAC not obvious to state</td>
<td>21</td>
<td>57%</td>
</tr>
<tr>
<td>Insufficient resources to add staff to run program</td>
<td>17</td>
<td>46%</td>
</tr>
<tr>
<td>Questions about NELAC’s legal authority without EPA presence</td>
<td>13</td>
<td>35%</td>
</tr>
<tr>
<td>Lack of resources to implement NELAC standards</td>
<td>12</td>
<td>32%</td>
</tr>
<tr>
<td>Lack of participation by EPA</td>
<td>12</td>
<td>32%</td>
</tr>
<tr>
<td>Costs of implementing or maintaining quality system</td>
<td>9</td>
<td>24%</td>
</tr>
<tr>
<td>Other-please specify:</td>
<td>9</td>
<td>24%</td>
</tr>
<tr>
<td>Instability of NELAC</td>
<td>6</td>
<td>16%</td>
</tr>
<tr>
<td>None</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>NELAC Standards difficult to understand</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Total Responses: 37
Other specified responses:

Certified through other accrediting bodies
Currently investigating certification
Currently modifying rules and statutes to insure enforceability of referenced TNI standards
Don't have a need for it.
Lack of sufficient data review by inspectors, especially electronic data review
not qualified to answer this - should be asked of the state DNR
Not required
Use neighboring state to provide this function
We do not perform environmental testing

15. Does your state certification program recognize NELAP?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>19</td>
<td>51%</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>49%</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>100%</td>
</tr>
</tbody>
</table>

16. Under the Safe Drinking Water Act, is your state environmental laboratory the designated principal laboratory?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>40</td>
<td>75%</td>
</tr>
<tr>
<td>No</td>
<td>13</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>
17. What are the top five most critical environmental issues for your laboratory? Please hold and drag the option choices in order to a scale them from 1 (least critical) to 5 (most critical).

<table>
<thead>
<tr>
<th>Answer</th>
<th>Total Times Appearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and monitor for emerging contaminants</td>
<td>41</td>
</tr>
<tr>
<td>Population biomonitoring for environmental contaminants</td>
<td>30</td>
</tr>
<tr>
<td>Increasing appreciation for the work of the environmental laboratory</td>
<td>30</td>
</tr>
<tr>
<td>Environmental Surveillance (air, water, soil)</td>
<td>27</td>
</tr>
<tr>
<td>Dedicated IT staff resources to support environmental laboratory</td>
<td>26</td>
</tr>
<tr>
<td>Threat of having services privatized</td>
<td>22</td>
</tr>
<tr>
<td>Best practices for implementing laboratory accreditation</td>
<td>22</td>
</tr>
<tr>
<td>Ability to conduct research projects</td>
<td>15</td>
</tr>
<tr>
<td>Threat of being shut down</td>
<td>13</td>
</tr>
<tr>
<td>Private well monitoring</td>
<td>10</td>
</tr>
<tr>
<td>Implementing safety codes</td>
<td>1</td>
</tr>
<tr>
<td>Other—please specify:</td>
<td>12</td>
</tr>
</tbody>
</table>
Laboratories Listing Topics As Among the Five Most Critical Environmental Issues

- Identify and monitor for emerging contaminants: 77%
- Population biomonitoring for environmental contaminants: 57%
- Environmental Surveillance (air, water, soil): 51%
- Dedicated IT staff resources to support environmental laboratory: 49%
- Threat of having services privatized: 42%
- Best practices for implementing laboratory accreditation: 42%
- Other—please specify: 23%
<table>
<thead>
<tr>
<th>Critical Environmental Issues By Ranking</th>
<th>Times Ranked 4</th>
<th>Times Ranked 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and monitor for emerging contaminants</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Population biomonitoring for environmental contaminants</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Increasing appreciation for the work of the environmental laboratory</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Environmental Surveillance (air, water, soil)</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Dedicated IT staff resources to support environmental laboratory</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Threat of having services privatized</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Best practices for implementing laboratory accreditation</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Ability to conduct research projects</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Threat of being shut down</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Private well monitoring</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Implementing safety codes</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other-please specify:</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Laboratories Listing Topics As Most Critical or Second Most Critical Environmental Issue

- Identify and monitor for emerging contaminants: 30%
- Environmental Surveillance (air, water, soil): 28%
- Threat of having services privatized: 19%
- Best practices for implementing laboratory accreditation: 19%
- Population biomonitoring for environmental contaminants: 17%
- Dedicated IT staff resources to support environmental laboratory: 15%
- Other—please specify: 13%

Most or Second Most Critical Environmental Issues
<table>
<thead>
<tr>
<th>Rank</th>
<th>Other specified responses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Funding for development of methods for emerging contaminants</td>
</tr>
<tr>
<td>2</td>
<td>Monitoring for toxic air contaminants</td>
</tr>
<tr>
<td>3</td>
<td>Insufficient staffing</td>
</tr>
<tr>
<td>4</td>
<td>Public Water Supply funding</td>
</tr>
<tr>
<td>4</td>
<td>Staffing</td>
</tr>
<tr>
<td>5</td>
<td>Implement/Improve Quality Management System</td>
</tr>
<tr>
<td>5</td>
<td>In this era of cost cutting and government cutbacks, finding enough work to keep the laboratory viable</td>
</tr>
<tr>
<td>5</td>
<td>Adequate resources for running environmental lab programs</td>
</tr>
<tr>
<td>5</td>
<td>Adequate revenues</td>
</tr>
<tr>
<td>4</td>
<td>Addressing large scale environmental incidents; loss of interdepartmental funding</td>
</tr>
</tbody>
</table>

**Total Responses:** 53

18. **Does your laboratory director or designee regularly participate in establishing environmental (health) policy? For example, participating in the development or review of public health guidelines.**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>57%</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>43%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>
Please note: only those who answered “Yes” to question 18 answered question 18a.

18a. With whom does your laboratory director or designee regularly participate in establishing environmental (health) policy? Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>State health official</td>
<td>28</td>
<td>93%</td>
</tr>
<tr>
<td>Federal partners (CDC, EPA, FDA)</td>
<td>19</td>
<td>63%</td>
</tr>
<tr>
<td>Legislature</td>
<td>15</td>
<td>50%</td>
</tr>
<tr>
<td>State environmental commissioner</td>
<td>8</td>
<td>27%</td>
</tr>
<tr>
<td>Advocacy groups (provide input on recommendations)</td>
<td>7</td>
<td>23%</td>
</tr>
<tr>
<td>Governor</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Other—please specify:</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Industry (provide input on recommendations)</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Total Responses</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Other specified responses:
- DPH Environmental Health SMEs
- Other state agencies or divisions within the Department of Health

19. Does your laboratory regularly provide data to assist in the development of environmental (health) policy at the following levels? Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>43</td>
<td>81%</td>
</tr>
<tr>
<td>Local (City or County)</td>
<td>21</td>
<td>40%</td>
</tr>
<tr>
<td>Federal</td>
<td>15</td>
<td>28%</td>
</tr>
<tr>
<td>None of the above</td>
<td>9</td>
<td>17%</td>
</tr>
<tr>
<td>Total Responses</td>
<td>53</td>
<td></td>
</tr>
</tbody>
</table>
### 20. Does your environmental laboratory ... Please check all that apply

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide a website directory of services</td>
<td>40</td>
<td>75%</td>
</tr>
<tr>
<td>Have a mission statement</td>
<td>38</td>
<td>72%</td>
</tr>
<tr>
<td>Have a strategic plan</td>
<td>24</td>
<td>45%</td>
</tr>
<tr>
<td>Publish an environmental laboratory services guide (hardcopy)</td>
<td>16</td>
<td>30%</td>
</tr>
<tr>
<td>None of the above</td>
<td>6</td>
<td>11%</td>
</tr>
</tbody>
</table>

**Total Responses** 53

### 21. Does your laboratory publish a(n) ... Please check all that apply

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the above</td>
<td>33</td>
<td>62%</td>
</tr>
<tr>
<td>Annual report with environmental specific data</td>
<td>19</td>
<td>36%</td>
</tr>
<tr>
<td>Newsletter with environmental specific data</td>
<td>7</td>
<td>13%</td>
</tr>
</tbody>
</table>

**Total Responses** 53

### 22. Does the drinking water quality program in your state ... review/validate/verify quality control data associated with drinking water sample analysis reports submitted to the state?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>27</td>
<td>51%</td>
</tr>
<tr>
<td>Yes</td>
<td>26</td>
<td>49%</td>
</tr>
</tbody>
</table>

**Total** 53 100%
23. What percentage of your laboratory’s efforts were dedicated to responding to emergencies involving environmental matrices (during the last complete fiscal year)?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5%</td>
<td>36</td>
<td>68%</td>
</tr>
<tr>
<td>Between 6% and 10%</td>
<td>9</td>
<td>17%</td>
</tr>
<tr>
<td>0%</td>
<td>6</td>
<td>11%</td>
</tr>
<tr>
<td>More than 21%</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Between 11% and 20%</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
| Total                   | 53       | 100%

24. Has your laboratory partnered in the conduct of applied or practice-based research?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>57%</td>
</tr>
<tr>
<td>No</td>
<td>23</td>
<td>43%</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100%</td>
</tr>
</tbody>
</table>
Please note: only those who answered “Yes” to question 24 answered questions 24a and 25.

24a. What other disciplines (if any) did you partner with? Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Other -please specify:</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Public Health/ Statistics</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>Radiological Health</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>Newborn Screening Program</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Maternal and Child Health</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Occupational Health</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>None of the above</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>

Other specified responses:

- Academia
- Biomonitoring, toxicology
- Drinking water, waste management, air monitoring, Dept. of Natural Resources
- Drugs of abuse
- Ecotoxicology
- Env. Toxicology
- Env. Health, Substance Abuse
- Food safety
- Office of Medical Examiner, Federal Law Enforcement,
- Toxicology
- University; private sector
- University partners

Total Responses 30
25. **What type of grant-funded research were you involved with?**
Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomonitoring</td>
<td>17</td>
<td>57%</td>
</tr>
<tr>
<td>Method development</td>
<td>15</td>
<td>50%</td>
</tr>
<tr>
<td>Environmental assessment</td>
<td>13</td>
<td>43%</td>
</tr>
<tr>
<td>None</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Systems and services</td>
<td>3</td>
<td>10%</td>
</tr>
</tbody>
</table>

Total Responses  30
Other specified responses:

<table>
<thead>
<tr>
<th>Specified Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>NARMS antimicrobial resistance testing</td>
</tr>
<tr>
<td>State Funded HAB Toxicity research</td>
</tr>
<tr>
<td>Surveillance work (food defense)</td>
</tr>
</tbody>
</table>

---

**Involved with the following grant-funded research**

<table>
<thead>
<tr>
<th>Type of Grant Funded Research</th>
<th>Percent of Laboratories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomonitoring</td>
<td>57%</td>
</tr>
<tr>
<td>Method development</td>
<td>50%</td>
</tr>
<tr>
<td>Environmental assessment</td>
<td>43%</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>10%</td>
</tr>
<tr>
<td>Systems and services</td>
<td>10%</td>
</tr>
</tbody>
</table>

---

34  Association of Public Health Laboratories
26. What was your total environmental laboratory budget for the last complete state fiscal year?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Min Value</th>
<th>Max Value</th>
<th>Average Value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response</td>
<td>0</td>
<td>12,000,000</td>
<td>2,386,753</td>
<td>126,497,886</td>
</tr>
</tbody>
</table>

Total Responses 53

27. How much of the total laboratory budget was obtained from the following sources? Please limit answers to only the environmental portion of your laboratory and enter 0 if none.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Min Value</th>
<th>Max Value</th>
<th>Average Value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>State (general funds)</td>
<td>0.00</td>
<td>8,500,000.00</td>
<td>993,275.67</td>
<td>52,643,610.35</td>
</tr>
<tr>
<td>Federal</td>
<td>0.00</td>
<td>3,265,081.00</td>
<td>494,224.39</td>
<td>26,193,892.89</td>
</tr>
<tr>
<td>State agencies (contracts or fees)</td>
<td>0.00</td>
<td>4,000,000.00</td>
<td>486,998.41</td>
<td>25,810,915.52</td>
</tr>
<tr>
<td>Fees (services from county, lake association, private contracts or fees)</td>
<td>0.00</td>
<td>3,400,000.00</td>
<td>371,675.50</td>
<td>18,583,775.00</td>
</tr>
<tr>
<td>Other-please specify:</td>
<td>0.00</td>
<td>1,000,000.00</td>
<td>64,033.18</td>
<td>3,265,692.00</td>
</tr>
<tr>
<td>Other specified responses:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certification Fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Tax levy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DW and lab-billed revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MC+33919; Income tax refund donation-7873; medicaid-29745</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misc. research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Grant Federal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Plants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue contracts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State allocation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We do receive fees from other State agencies, but the number is not easily broken out.

| Total Responses | 53 |
Total Laboratory Budget Obtained From The Following Sources

- State (general funds): $52,643,610.35
- Federal: $26,193,892.89
- State agencies (contracts or fees): $25,810,915.52
- Fees (services from county, lake association, private contracts or fees): $18,583,775.00
- Other (please specify): $3,265,692.00

Total Dollars Obtained By Laboratories: $120,007,875.76
28. How much of the total federal dollars listed in Question 27 were obtained from the following sources? (Please list funds of your last fiscal year from your state-based homeland security agency as funds from federal Department of Homeland Security.) Please enter 0 if none.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Number Of Labs Receiving Funds</th>
<th>Min Value</th>
<th>Max Value</th>
<th>Average Value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDC</td>
<td>18</td>
<td>0.00</td>
<td>2,445,749.00</td>
<td>239,044.66</td>
<td>12,669,366.90</td>
</tr>
<tr>
<td>US EPA (direct)</td>
<td>13</td>
<td>0.00</td>
<td>800,000.00</td>
<td>75,534.40</td>
<td>4,003,322.99</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>0.00</td>
<td>2,000,000.00</td>
<td>74,906.75</td>
<td>3,820,244.00</td>
</tr>
<tr>
<td>FDA</td>
<td>11</td>
<td>0.00</td>
<td>903,019.00</td>
<td>61,574.72</td>
<td>3,263,460.00</td>
</tr>
<tr>
<td>Department of Homeland Security</td>
<td>5</td>
<td>0.00</td>
<td>652,400.00</td>
<td>21,565.38</td>
<td>1,121,400.00</td>
</tr>
<tr>
<td>USDA</td>
<td>6</td>
<td>0.00</td>
<td>337,574.00</td>
<td>20,040.37</td>
<td>1,042,099.00</td>
</tr>
<tr>
<td>Department of Energy</td>
<td>1</td>
<td>0.00</td>
<td>274,000.00</td>
<td>5,372.55</td>
<td>274,000.00</td>
</tr>
<tr>
<td>Department of Defense</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Total Responses | 53
29. Does your environmental laboratory provide technical outreach, assistance or training to the following agencies? Please check all that apply

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Environmental Agency</td>
<td>34</td>
<td>64%</td>
</tr>
<tr>
<td>State Health Department</td>
<td>31</td>
<td>58%</td>
</tr>
<tr>
<td>Public Water System or Utility</td>
<td>27</td>
<td>51%</td>
</tr>
<tr>
<td>Local health department</td>
<td>21</td>
<td>40%</td>
</tr>
<tr>
<td>State Agriculture Agency</td>
<td>15</td>
<td>28%</td>
</tr>
<tr>
<td>Other- please specify:</td>
<td>12</td>
<td>23%</td>
</tr>
<tr>
<td>State Homeland Security</td>
<td>11</td>
<td>21%</td>
</tr>
<tr>
<td>Crime Agency</td>
<td>7</td>
<td>13%</td>
</tr>
<tr>
<td>State OSHA Agency</td>
<td>2</td>
<td>4%</td>
</tr>
</tbody>
</table>

Total Responses 53

Other specified responses:
- Agency’s Engineering Department
- Any State Agency and to the Public
- Army National Guard Civil Support Teams, Other State and Local Labs,
- Certified Commercial & Municipal Laboratories
- Civil Support Team
- Commercial laboratories
- CST
- Fire Dept., Civil Support
- Other labs
- State Wildlife agency
- University for FDA evaluation compliance
- We do not have a dedicated environmental lab
30. What are the training needs of your environmental laboratory staff? Please check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>Response</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Systems</td>
<td>38</td>
<td>72%</td>
</tr>
<tr>
<td>Organic Testing</td>
<td>35</td>
<td>66%</td>
</tr>
<tr>
<td>Inorganic Testing</td>
<td>33</td>
<td>62%</td>
</tr>
<tr>
<td>Informatics</td>
<td>32</td>
<td>60%</td>
</tr>
<tr>
<td>Microbiology</td>
<td>29</td>
<td>55%</td>
</tr>
<tr>
<td>Radiochemistry</td>
<td>27</td>
<td>51%</td>
</tr>
<tr>
<td>Data Collection Methods</td>
<td>18</td>
<td>34%</td>
</tr>
<tr>
<td>None</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>Other – please specify</td>
<td>3</td>
<td>6%</td>
</tr>
</tbody>
</table>

Total Responses 53

Other specified responses:
- depends on what environmental testing we are directed to perform
- LIMS related
- Supervision
Training Needs of Environmental Laboratory Staff

- Quality Systems: 72%
- Organic Testing: 66%
- Inorganic Testing: 62%
- Informatics: 60%
- Microbiology: 55%
- Radiochemistry: 51%
- Data Collection Methods: 34%
- Training Needs: 6% (None), 6% (Other)

Percent of Laboratories
2012 Environmental Laboratory Survey

CONTACT AND DEMOGRAPHICS

1. Who is completing this survey?
   - ☐ Environmental Laboratory Director
   - ☐ Environmental Laboratory Supervisor
   - ☐ Other, please provide role: ____________________________

   1a. Please provide your name: ____________________________

2. Where does your laboratory reside?
   - ☐ Department of Health
   - ☐ Department of Environmental Protection
   - ☐ Department of Natural Resources
   - ☐ Department of Agriculture
   - ☐ University
   - ☐ Other—please specify: ____________________________

   2a. Your laboratory is a...
      - o State Agency
      - o Local Agency
      - o Other—please specify:__________________________

   2b. What is the name of your laboratory?

   2c. In what state is your laboratory located?
CAPABILITY/CAPACITY

3. For each Analytical Service listed below please check if the service is performed by your laboratory (for clinical samples this may include metabolites). *Note that all matrices may not be applicable to each analyte.*

<table>
<thead>
<tr>
<th>Test Performed</th>
<th>Air</th>
<th>Drinking Water</th>
<th>Other Water</th>
<th>Soil/ Sediment</th>
<th>Blood</th>
<th>Urine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microbiology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Coliform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Coli</td>
<td></td>
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<tr>
<td>Enterroccoci</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Inorganic Chemicals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perchlorate (314)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyanide</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Fluoride</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Chloride</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Surfactants</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Metals</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td></td>
<td></td>
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<tr>
<td>Lead (Pb)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic (As)</td>
<td></td>
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</tr>
<tr>
<td>Copper (Cu)</td>
<td></td>
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<td></td>
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<tr>
<td>Uranium (U)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boron (B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organic Chemicals Volatile Organic Compounds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulated VOC's</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Semi-volatile Organic Compounds</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Herbicides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organophosphate Pesticides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N-methyl Carbamate Insecticides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paraquat/Diquat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organochlorine Pesticides</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
### Toxic Chemical Elements

- Polychlorinated Biphenyls (PCBs)
- Polybrominated Biphenyl Ethers (PBDEs)
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Explosives
- Acid Herbicides
- Haloacetic Acids
- Fungicides
- UST - Diesel Range Organics (DRO)
- UST - Total Extractable Hydrocarbons (TEH)

### Radiation/Radiochemistry

- Bioassays/ radiochemistry
- Biodosimetry
- Gross Alpha
- Gross Beta
- Radioactive Iodine
- Gamma Emitters
- Radium-226
- Radium-228
- Stontium-89, 90
- Tritium
- Uranium
- Radon-222

### Alpha Spectrometry Analytes

### Whole Effluent Toxicity

- Fathead Minnow (P. promelas)
- Daphnid (C. dubia)

3a. Does your laboratory test for consumer products (lotions, toys, etc.)?

- [ ] Yes
- [ ] No

4. Please list other environmental testing conducted at your laboratory. *If no additional tests are conducted, please type “None.”*
5. Does your laboratory have an unknown sample receipt area for suspicious substances?
   - ☐ Yes
   - ☐ No

6. Does your laboratory submit data for the following EPA regulatory programs, either directly or indirectly? *Please check all that apply.*
   - ☐ Clean Air Act
   - ☐ Clean Water Act
   - ☐ Comprehensive Environmental Response, Compensation, and Liability Act
   - ☐ Resource Conservation and Recovery Act
   - ☐ Safe Drinking Water Act (chemistry)
   - ☐ Safe Drinking Water Act (microbiology)
   - ☐ Safe Drinking Water Act (radiochemistry)
   - ☐ Other—please specify: ______________________

**INFORMATICS**

7. Does your environmental laboratory have a LIMS (Laboratory Information Management System)?
   - ☐ Yes (*Please go to question 7a*)
   - ☐ No (*Please go to question 11*)

7a. Which of these functions has your environmental laboratory implemented? *Please check all that apply.*
   - ☐ Provides data exchange between automated analytical instruments and your LIMS
   - ☐ Integrates with your public health infectious disease program
   - ☐ Captures electronic QC data from your instruments
   - ☐ Sends electronic report in different formats
   - ☐ Reports electronic data deliverables that contain *measurement quality objectives* from laboratory-generated samples and substances such as surrogates, blanks, matrix spike, etc.
Reports electronic data deliverables that contain instrument quality control data such as initial calibration, continuing calibration verification results

Produces XML reports/messages for environmental data

Other–please specify:

8. Who is your environmental laboratory LIMS provider?

9. What IT support is available in your environmental laboratory?
   - In-house environmental laboratory IT staff
   - Shared IT staff with other laboratory(ies)
   - Centralized IT resources from an organization larger than your laboratory
   - Other–please specify:
   - No IT support (Please go to question 10)

9a. Is your IT staff capable of 24x7 support of your LIMS?
   - Yes
   - No

10. Has your environmental laboratory participated in electronic data sharing with other public health laboratories or public health agencies?
   - Yes
   - No
ACCREDITATION/CERTIFICATION

11. Please complete the following table by checking the name of the organization which provides your laboratory with accreditation. Please check all that apply. Check the “Not accredited” column if your laboratory does not receive accreditation from the identified organization(s).

<table>
<thead>
<tr>
<th>Accreditation is current</th>
<th>No longer accredited, but were accredited within the past 3 years</th>
<th>Not accredited, but anticipate to be accredited within the next 3 years</th>
<th>Not accredited</th>
</tr>
</thead>
<tbody>
<tr>
<td>US EPA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A2LA (American Association for Laboratory Accreditation)</td>
<td></td>
<td></td>
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<tr>
<td>ASCLD-LAB (American Society of Crime Lab Directors)</td>
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<tr>
<td>RTI-NLCP (Research Triangle Institute – National Laboratory Certification Program)</td>
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</tr>
<tr>
<td>ISO 17025 (International Standards Organization)</td>
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<td></td>
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</tr>
<tr>
<td>NIST/NVLAP (National Voluntary Laboratory Accreditation Program)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>ELLAP (Environmental Lead Laboratory Accreditation Program)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>State Sponsored Accreditation Program(s)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>CLIA (Clinical Laboratory Improvement Amendments)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAP (College of American Pathologists)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIHA (American Industrial Hygiene Association)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFT (Society of Forensic Toxicologists)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Environmental Laboratory Accreditation Program (NELAP)</td>
<td>Please go to question 12-skip 13</td>
<td>Please go to question 13 and 14</td>
<td>Please go to question 13 and 14</td>
</tr>
</tbody>
</table>
11a. Are there any other organizations that provide your laboratory with accreditations?

☐ Yes–please specify:

☐ No

12. Does your laboratory plan to drop any of the above accreditations?

☐ Yes (Please go to question 12a)

☐ No (Please go to question 14)

12a. Please state the reasons for dropping your accreditation. Please check all that apply.

☐ Funding

☐ Resource intensive

☐ Reduce/eliminate testing

☐ Accrediting body cannot accredit out of state laboratory

☐ Accrediting body utilizes 3rd party organization

☐ Change in legislation

☐ Benefits of a national accreditation standard not obvious to state

☐ Other–please specify:

13. What prevents your environmental laboratory from seeking NELAP accreditation? Please select all that apply.

☐ Instability of NELAP

☐ Cost of participating in 2 proficiency testing studies a year

☐ Cost of implementing or maintaining quality system

☐ Cost of application or renewal fees

☐ Level of participation by EPA

☐ Questions about NELAP’s (or The NELAC Institute’s) legal authority without EPA presence

☐ TNI Standards difficult to understand

☐ TNI Standards change frequently

☐ Lack of resources to implement requirements for NELAP or TNI standards

☐ Benefits of NELAP accreditation not obvious to laboratory
☐ Benefits of a national accreditation standard not obvious to laboratory
☐ Unable to justify paying another state
☐ Laboratory falls within the same structural system as the accrediting body
☐ No requirement from data users to be certified/accredited beyond drinking water
☐ Other–please specify:
☐ None/Not interested

14. Is your environmental laboratory certification program a NELAP-recognized Accreditation Body (AB)?
   ☐ Yes (Please go to question 16)
   ☐ No (Please go to question 14a)

14 a. What prevents your state environmental laboratory certification program from becoming a NELAP Accrediting Body (AB)? Please select all that apply.
   ☐ Instability of NELAC
   ☐ Costs of implementing or maintaining quality system
   ☐ Lack of participation by EPA
   ☐ Questions about NELAC’s legal authority without EPA presence
   ☐ NELAC Standards difficult to understand
   ☐ Lack of resources to implement NELAC standards
   ☐ Benefits of NELAC not obvious to state
   ☐ Insufficient resources to add staff to run program
   ☐ Other–please specify:
   ☐ None

15. Does your state certification program recognize NELAP?
   ☐ Yes
   ☐ No
16. Under the Safe Drinking Water Act, is your state environmental laboratory the designated principal laboratory?

☐ Yes
☐ No

POLICY

17. What are the top five most critical environmental issues for your laboratory? Please rank using a scale from 1 (least critical) to 5 (most critical).

- Threat of being shut down
- Threat of having services privatized
- Population biomonitoring for environmental contaminants
- Environmental Surveillance (air, water, soil)
- Identify and monitor for emerging contaminants
- Ability to conduct research projects
- Dedicated IT staff resources to support environmental laboratory
- Best practices for implementing laboratory accreditation
- Private well monitoring
- Implementing safety codes
- Increasing appreciation for the work of the environmental laboratory

Other—please specify:

18. Does your laboratory director or designee regularly participate in establishing environmental (health) policy? For example, participating in the development or review of public health guidelines.

☐ Yes (Please go to question 18a)
☐ No (Please go to question 19)

18a. With whom? Please check all that apply.

☐ State health official
☐ Legislature
☐ Governor
☐ State environmental commissioner
☐ Federal partners (CDC, EPA, FDA)
☐ Industry (provide input on recommendations)
☐ Advocacy groups (provide input on recommendations)
☐ Other:________________

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19. Does your laboratory regularly provide data to assist in the development of environmental (health) policy at the following levels? Please check all that apply.
   - Local (City or County)
   - State
   - Federal
   - None of the above

20. Does your environmental laboratory ... Please check all that apply
   - Have a mission statement
   - Have a strategic plan
   - Publish an environmental laboratory services guide (hardcopy)
   - Provide a website directory of services
   - None of the above

COMMUNICATIONS

21. Does your laboratory publish a(n) ... Please check all that apply
   - Annual report with environmental specific data
   - Newsletter with environmental specific data
   - None of the above

22. Does the drinking water quality program in your state review/validate/verify quality control data associated with drinking water sample analysis reports submitted to the state?
   - Yes
   - No

23. What percentage of your laboratory’s efforts were dedicated to responding to emergencies involving environmental matrices (during the last complete fiscal year)?
   - 0%
   - Less than 5%
   - Between 6% and 10%
Between 11% and 20%
More than 21%

RESEARCH AND ASSESSMENT

24. Has your laboratory partnered in the conduct of applied or practice-based research? *Please see the glossary for definition of research.*

☐ Yes (*Please go to question 24a*)
☐ No (*Please go to the question 26*)

24a. What other disciplines (if any) did you partner with? *Please check all that apply.*

☐ Epidemiology
☐ Maternal and Child Health
☐ Newborn Screening Program
☐ Occupational Health
☐ Public Health/ Statistics
☐ Radiological Health
☐ Other—please specify:
☐ None of the above

25. What type of grant-funded research were you involved with? *Please check all that apply.*

☐ Biomonitoring
☐ Method development
☐ Environmental assessment
☐ Systems and services
☐ Other—please specify:
☐ None
FUNDING

For this section, please exclude your environmental laboratory certification program. Please include numbers only.

26. What was your total environmental laboratory budget for the last complete state fiscal year?

27. How much of the total laboratory budget was obtained from the following sources? Please limit answers to only the environmental portion of your laboratory and enter 0 if none.

   - State (general funds)
   - State agencies (contracts or fees)
   - Federal
   - Fees (services from county, lake association, private contracts or fees)
   - Other—please specify:

28. How much of the total federal dollars listed in Question 27 were obtained from the following sources? (Please list funds of your last fiscal year from your state-based homeland security agency as funds from federal Department of Homeland Security.) Please enter 0 if none.

   - US EPA (direct)
   - FDA
   - CDC
   - USDA
   - Department of Defense
   - Department of Energy
   - Department of Homeland Security
   - Other:
29. Does your environmental laboratory provide technical outreach, assistance or training to the following agencies? Please check all that apply.

☐ State Health Department
☐ State Environmental Agency
☐ Crime Agency
☐ Public Water System or Utility
☐ State Agriculture Agency
☐ State OSHA Agency
☐ State Homeland Security
☐ Local health department
☐ Other—please specify:

30. What are the training needs of your environmental laboratory staff? Please check all that apply.

☐ Organic Testing
☐ Inorganic Testing
☐ Radiochemistry
☐ Microbiology
☐ Quality Systems
☐ Data Collection Methods
☐ Informatics
☐ Other—please specify:
☐ None
Glossary

Research - Investigation, experimentation, or evaluation aimed at the discovery and interpretation of information, or the practical application of such information to the field of public health. Research may be categorized as applied, basic, clinical, systems and services, or translational.

• **Applied** - Solves problems rather than to acquire new knowledge. Such research might be used to improve a process.

• **Basic** - Tests a hypothesis or answer a scientific question. The motivation for such research is to acquire new knowledge.

• **Clinical** - Determines the safety or efficacy of medications, devices, diagnostic products/procedures and regimens. Often carried out for the prevention, treatment or diagnosis of a disease or condition.

• **Systems and Services** - Examines the organization, financing and delivery of public health services in communities, and assesses the impact of these services on public health.

• **Translational** - Translates the findings in basic research and applies them to meaningful health outcomes which broadly affect a population or community.
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