

The Lab Report

A CALIFORNIA ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM (ELAP) NEWSLETTER

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ELAP's Mission and Vision

The Environmental Laboratory Accreditation Program was established to accredit laboratories that perform analyses on any combination of environmental samples for regulatory purposes. The needs of the regulatory agency programs that use data from ELAP-accredited laboratories drive the services ELAP offers. These agencies advise ELAP of their regulatory needs to ensure that ELAP's Field of Testing offerings are accurate and relevant to the needs of their programs. This State Agency Partner Committee consists of representatives from:

- Department of Public Health
- Department of Toxic Substances Control
- Department of Pesticide Regulation
- Department of Fish and Wildlife
- State Water Resources Control Board
- Regional Water Quality Control Boards



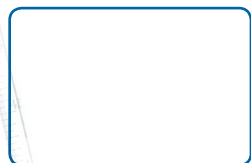
ELAP has developed a draft mission and vision statement with input from the committee.

Mission Statement: To implement a sustainable accreditation program that ensures laboratories generate environmental and public health data of known, consistent, and documented quality to meet stakeholder needs.

Vision Statement: California will produce the highest quality scientific data as a foundation for its environmental and public health programs and decisions.

EXPERT REVIEW PANEL

The ELAP Expert Review Panel reconvened at the Southern Coastal California Water Research Project in Costa Mesa, CA from January 31, 2017 – February 2, 2017 to review the program's progress on its initial recommendations. They will author a second report assessing ELAP's success in implementing reform initiatives and add any further recommendations they identify. Copies of the meeting presentations and a recording can be found on the facilitating agency's webpage at www.sccwrp.org/elap.



ELAP Reforms

ELAP has developed a Work Plan to implement the Expert Review Panel's recommendations. It targets the five programmatic areas that were recognized as critical elements in reform efforts:

- Establish a Management System
- Adopt a Laboratory Accreditation Standard
- Ensure Use of Relevant Methods
- Expand Resources
- Enhance Communication

ELAP is committed to reforming the program through these five initiatives to deliver a top laboratory accreditation program to its internal and external stakeholders. This section contains a summary of recent progress made on each program area.

ADOPT A MANAGEMENT SYSTEM

ELAP completed work drafting the components of its quality management system, including Standard Operating Procedures and program Quality Assurance Manual. ELAP has established procedures consistent with the standards identified in The NELAC Institute, Volume 2, General Requirements for Accreditation Bodies Accrediting Environmental Laboratories (2009). The standardization of ELAP's processes is aimed at increasing efficiency and staff accountability. The management system is in early stages of implementation and ELAP anticipates identifying revisions moving forward.

ADOPT A LABORATORY ACCREDITATION STANDARD

ELAP presented its recommendation to develop regulations incorporating the 2016 NELAC Institute (TNI) Standard, Volume 1: Management and Technical Requirements for Laboratories Performing Environmental Analysis at a State Water Board Public Workshop on October 6, 2016. ELAP proposed working with both of its advisory bodies

(the Environmental Laboratory Technical Advisory Committee and the State Agency Partners Committee) and the stakeholder community to consider revising sections of the standard that may be problematic for implementation by California laboratories.

ELAP arrived at this recommendation after a stakeholder outreach period and with input from both program advisory committees. This process was undertaken in response to Expert Review Panel finding that ELAP's current laboratory accreditation standard is not clearly written, auditable, enforceable, or relevant to the intended use of produced data, which has resulted in inconsistent laboratory assessments.

The process to identify modifications to the TNI Standard is underway and ELAP presented its determinations to the Expert Review Panel on January 31st. The modifications will be finalized following input from the Panel and discussed with the community during a series of regulations workshops during Spring 2017, where there will be the opportunity to have input on the standard before regulations are finalized.

ENSURE USE OF RELEVANT ANALYTICAL METHODS

ELAP has updated its Drinking Water and Wastewater Fields of Testing and is verifying their content with the State Agency Partners whose programs are served by the laboratories before public release. Hazardous waste lists are still under development. ELAP is planning to exclude references to specific methods in its new regulations, which will allow the program to easily update FOT lists as State Agency Partner needs change.

EXPAND RESOURCES

The State Water Board is investing \$1.5 million dollars in creating the country's top environmental laboratory assessor training program. Assessors from a third-

party assessment firm will train ELAP staff on analytical methods and assessment skills in both a classroom setting and during laboratory assessments. ELAP staff will shadow the professional assessors during the beginning of the contract, and then the professional assessors will shadow ELAP staff to observe and critique them. The contract was released in December 2016 and is expected to be awarded to a firm in March 2017.

The firm will begin assessing California Drinking Water laboratories in Spring of 2017. These assessments may not necessarily coincide with the submission of an application or the expiration of a laboratory's certificate. This is also an opportunity for laboratories to have a professional assessor evaluate any new TNI requirements they have implemented and get feedback without those requirements being enforced.

ENHANCE COMMUNICATION

ELAP worked with the Water Board's Geographic Information Systems (GIS) and Web Support Groups to launch a revamped webpage that includes a GIS Map of ELAP-certified laboratories. ELAP has also established several avenues through which stakeholders can communicate directly with the program via email.

elapca@waterboards.ca.gov

– For submission of applications and general administrative or accreditation questions

elapca_pt@waterboards.ca.gov

– For submission of proficiency testing reports and questions

elapca_comments@waterboards.ca.gov

– For comments regarding any reform initiatives or program policies (for example, comments on TNI Standard modifications or regulations development)

elapca_technical@waterboards.ca.gov

– For technical questions about laboratory operations, instrumentation, and analytical test methods

Proficiency Testing Requirements

ELAP has established a Proficiency Testing (PT) Unit led by Dr. Christopher Ryan. This unit evaluates laboratory proficiency test study results to determine compliance with ELAP regulations and current laws.

Initial Application PTs – New laboratories submitting initial applications have six months from the date of receipt of application to submit acceptable PT study results for each Field of Testing subgroup code. However, inclusion of acceptable PT results with the electronic application is highly encouraged and will shorten the time required for accreditation, as review of PT results is the first step in ELAP's accreditation process.

Renewal Application PTs

– A laboratory must submit acceptable results to ELAP for EVERY requested analyses at least 90 days prior to expiration of its certificate [California Code of Regulations, § 64809 (e)].

Results must be present and acceptable upon submittal of application, or those methods will be denied by ELAP (California Health & Safety Code, § 100850).

Annual Year PTs - The PT Unit evaluates annual year PT results at the one-year anniversary date of a laboratory's certificate. Laboratories are required to perform proficiency testing for all of their certified

methods every year and have their vendor submit those results to ELAP.

The PT Unit will begin sending noncompliance letters to laboratories who either fail to report results or who fail to report acceptable results for their required annual tests. This may also result in temporary suspension or revocation of those methods. A laboratory will then have to reapply (including paying a fee) to request those methods be added back to their certificate once they demonstrate proficiency. For more information regarding PT Compliance email the PT Unit at elapca_pt@waterboards.ca.gov.

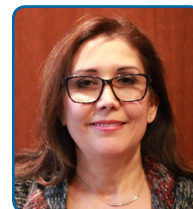
Environmental Laboratory Technical Advisory Committee

The Environmental Laboratory Technical Advisory Committee (ELTAC) has played an important role in assisting ELAP in undertaking reform efforts throughout 2016. The committee has met seven times since it was formed in February 2016 and has tackled major issues in its mission to advise ELAP. Most notably, it has proposed significant revisions to ELAP's Field of Testing Worksheets and put much time into recommendations for a new laboratory accreditation standard for ELAP laboratories. ELTAC has also played a critical role in identifying potential modifications to the TNI Standard.

ELTAC members represent our diverse stakeholder community and have committed their time to serving the community and assisting ELAP in its mission of reform. ELTAC members have been an invaluable tool for both ELAP and its constituencies and ELAP is grateful for their continued commitment to the program.

Get to Know ELAP

Interview with **Maryam Khosravifard**, Supervisor of the Program Development, Research, and Enforcement Unit (PDRE).



Q: *What experience do you bring to your position?*

A: I offer 23 years of experience working as a scientist with state agencies, researchers and stakeholders on environmental data assessment and developing environmental standards in regulations and permits. I have a strong science background in chemistry, biology, laboratory and data analysis, and the regulatory craft that allows me to assist in developing the program and staff.

Q: *What are the functions of your unit?*

A: The PDRE Unit leads program reforms. We develop policies, procedures, and regulations, as well as performing enforcement investigations and researching technical issues. I supervise five environmental scientists in this group that are helping me accomplish these important tasks.

Q: *What are your goals?*

A: My goals are to implement the program reforms identified by the Expert Review Panel and to train my staff on the skills they need to be successful. I am committed to assisting Chief Christine Sotelo in overseeing the program and meeting the needs of ELAP's clients.

Q: *What do you enjoy most about your job?*

A: Developing our team members is the most rewarding part of my job. Watching staff learn and succeed is very fulfilling on a personal and professional level.

Environmental Laboratory Corner

Contributed by Allison Mackenzie, Babcock Laboratories

One of the first technical challenges for which Environmental Laboratory Accreditation Program (ELAP) staff requested assistance from the Environmental Laboratory Technical Advisory Committee (ELTAC) was the review and update of the Field of Testings (FOTs). FOTs are at the heart of the laboratory accreditation process and, under current practices, labs pay accreditation fees and are approved to conduct testing and reporting of analytical data based on FOTs. The review of FOTs presents a number of challenges.

An important question that ELTAC and ELAP had to tackle initially was, "Should ELAP accredit by method or by analyte?" There are several different approaches to laboratory accreditation, however, all rely on the analytical method. The analytical method is typically associated with a specific federal regulatory program such as the Safe Drinking Water Act, the Clean Water Act, or the Resource Conservation and Recovery Act. The simplest approach is to accredit by method. However, this approach is insufficient to meet the needs of the State and Federal drinking water programs, and is a challenge when it comes to evaluating competency through proficiency testing.

Another simple approach is to certify based on method and analyte. Using this approach requires the laboratory to specify the analytes for which they request accreditation and the Accrediting Body (AB), e.g. ELAP, to grant accreditation specifically by analyte. This approach has some drawbacks because laboratories may be asked to add non-routine analytes for special projects while still demonstrating accreditation.

After careful consideration at the ELTAC meeting in July, the Committee recommended to ELAP that accreditation within an existing FOT be requested and granted on a per analyte and published method basis. Additionally, ELTAC recommended that additions to the FOTs only be added in response to a request from the regulatory agencies. Finally, ELTAC also recommended that ELAP post the revised FOT lists to the program website for public comment prior to implementation.

So what has yet to be tackled by ELTAC and ELAP regarding FOTs? There is concern from laboratories that perform National Pollutant Discharge Elimination System (NPDES) testing regarding the requirement to add the solid waste FOTs and methods for a small number of analytes. Additionally, under the current ELAP fee structure each matrix/regulatory addition increases the cost, which some laboratories argue places undue financial burden on them. ELTAC discussions of how to restructure the fee schedule in a way that is both effective and fair will no doubt be contentious. Nevertheless, the members of ELTAC are resolute in their desire to address the concerns of the stakeholders and make informed recommendations to ELAP on these important issues.

accredit

inspect

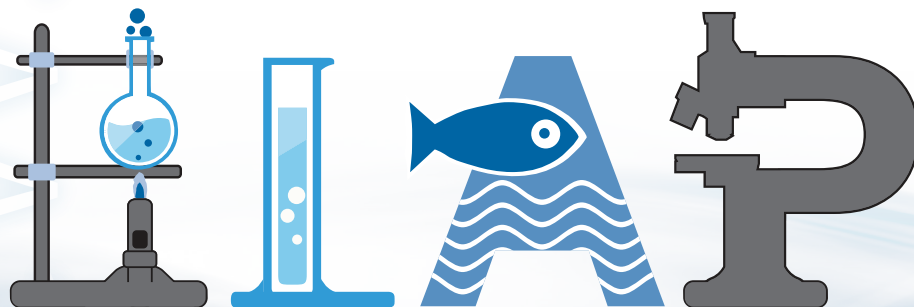
monitor

enforce

UPCOMING EVENTS:

- **March 29** – ELTAC Meeting
- **April 5** – Listening Session
- **May 3** – State Water Board Meeting - Expert Review Panel Year 2 Report

See our website for more details.



Environmental Laboratory Accreditation Program
STATE WATER RESOURCES CONTROL BOARD



STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

**For more information,
please visit our website at:**
www.waterboards.ca.gov/elap

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