

Meeting Limited Resource Demands through Public and Private Laboratory Collaboration

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Overview

- * What is the problem?
- * How it is being addressed (ERLN and WLA)
- * Why use a network for emergencies
- * How are laboratories mobilized
- * Examples of when ERLN/WLA was activated
- * Lost Opportunities
- * Lessons learned

Problem

- * The nation often has to deal with environmental crises for which government resources are insufficient.
- * Mobilizing an effective response in such situations has been and continues to be a problem for government and the private sector.
- * The United States has an extensive network of public and private laboratories who have the capability to respond to emergencies.
- * This presentation will review what has been done to date to establish a framework for such a mobilization; and recommendations for how to improve its capabilities and utilization.

Background

- * In the early 1990s, the U. S. Environmental Protection Agency established the Environmental Response Laboratory Network (ERLN).
- * The mission of the ERLN is to assist in addressing chemical, biological and radiological threats during nationally significant incidents.

Environmental Response Laboratory Network

- * The ERLN is a national network of public and private laboratories that can be accessed, and ramped up, as needed, to support large scale environmental responses.
- * The ERLN is solely dedicated to the testing of environmental samples.

Environmental Response Laboratory Network

- * Its member laboratories have demonstrated an ability to be able to provide a wide range of analytical capabilities, capacities, and quality data.
- * These laboratories have the capability and capacity to analyze samples in response to natural, intentional or unintentional contamination incidents. While the WLA is an integral part of the ERLN, it is composed of laboratories with specific expertise in the analysis of water.

Water Laboratory Alliance

- * Since water supply contamination is a major and frequent threat to public health, in 2009, EPA established the Water Laboratory Alliance (WLA).
- * The WLA is a subset of the ERLN and is comprised of laboratories with the specific expertise in the analysis of water samples for chemical, biological or radiochemical contaminants.

ERLN/WLA

- * What are ERLN and WLA
- * Why use a network for emergencies
- * How are laboratories mobilized
- * Examples of when ERLN/WLA was activated
- * Lost Opportunities
- * Lessons learned

History of ERLN and WLA

- * EPA established ERLN in response to DHS and environmental contamination incidents in the 1990's
 - * A branch of the Integrated Consortium of Laboratory Networks (ICLN)
 - * Dedicated to environmental emergencies
- * WLA established in 2009 in response to water contamination incidents
 - * Dedicated to water supply related emergencies

<https://www.epa.gov/emergency-response/environmental-response-laboratory-network>

Mission

To provide Federal, State and local decision makers with reliable, high quality analytical data used to identify chemical, biological, and radiological contaminants collected in support of response and cleanup activities.

Goals

- * Provide testing capabilities and capacity to meet EPA's responsibilities for surveillance, response, decontamination, and recovery from incidents from emergency environmental contamination
- * Facilitate coordination of laboratory responses to incidents
- * Establish relationships and priorities with networks through ICLN

Membership Criteria

- * QA system consistent with ISO 17025, NELAC, or DW certification (as applicable)
- * Documented policies and procedures
- * Sample management systems
- * Facilities for sample handling and secure storage
- * Data management and exchange procedures
- * Analytical capabilities and capacities for chemical, biological, and/or radiological contaminants

Why Use a Network

- * Federal and State/Local Benefits
 - * Quick and easy access to monitoring support and resources
 - * Confidence in capabilities and quality systems of network
 - * Use of proven monitoring technology and analytical methods
 - * Protection against making a mistake in hiring wrong support organization

Why Use a Network

- * Benefits to Network Member Laboratories
 - * Additional work for the private laboratories
 - * Making a difference during emergencies
 - * Simplified contracting procedures
 - * Recognition as a DHS asset
 - * Network with professionals from other laboratories across the nation

Note: Participation is voluntary

ERLN and EPA Regional Labs

- * Identify, coordinate, and organize overall regional capacity
- * POC with EPA for analytical issues during emergencies
- * Coordinate sample flow to ERLN member labs
- * Coordinate training exercises for ERLN member labs
- * Partner with disaster coordinators to strengthen relationships and establish operational roles and procedures with the Emergency Response Incident Command Center

ERLN Resources

* Over 500 ERLN member laboratories including:

- ❖ Commercial
- ❖ College/University
- ❖ EPA
- ❖ Federal
- ❖ Government-Owned Contractor Operated
- ❖ Industrial
- ❖ Local/Municipal
- ❖ Public Utility
- ❖ State

Activating the Network

- * Partner labs are registered in the EPA Lab Compendium
 - * <https://cfext.epa.gov/cetl>
- * Federal/State/Local can access registered labs through the Compendium
 - * Search for labs based on criteria (location, lab name or type, ERLN status, matrix types, specific analytical capabilities, support services, special sample handling, and mobility)

Basic Ordering Agreement (BOA)

- * BOA is an agreement (not a contract)
- * Primary mechanism for:
 - * Terms and conditions
 - * Description of supplies and/or services provided
 - * Pricing and issuing/delivering future PO's
- * Member lab must register in ERLN and register with the Central Contractor Registration (CCR)

Ordering through BOA Procedures

- * Non-emergency orders:
 - * Contracting Officer (CO) sends RFQ to selected ERLN labs
 - * Labs submit quote to CO
 - * CO issue PO to lab whose price and other price related factors are the best value
- * Emergency orders:
 - * On-Scene Coordinator (OSC) issues PO directly to the lab when time is of the essence

Mobilization Examples

- * 2010 – Water main break in Boston, MA
 - * Partner lab provided supplies and services for analysis
- * 2011 – Fukushima incident
 - * Partner lab provided drinking water analysis for ^{134}Cs and ^{137}Cs
- * 2014 – Eden, NC coal ash spill
 - * Partner lab provided water analysis for particle size distribution

Missed Opportunities

- * BP disaster in the Gulf of Mexico
- * TVA Ash Dam rupture
- * Hurricane Harvey (peroxide plant explosion, etc.)
- * Hurricane Maria
- * etc

Missed Opportunities – Why

- * Lack of awareness of the program by regulators and responders?
- * Lack of understanding of its benefits?
- * Lack of understanding of how to use the ERLN/WLA networks?
- * Lack of understanding by laboratory communities of the program?

Lessons Learned When Programs Were Used

- * Communication is essential
- * Identify additional lab support and keeping Compendium current
- * Establish command centers (was not well coordinated in previous exercises)
- * More than 1 person should have access to key laboratory information, databases, and/or resources (more redundancy)
- * After hours support
- * Partner labs and agencies should participate in emergency drills

KEY – PRACTICE REDUCES ISSUES BEFORE THEY ARE ISSUES

Recommendations for Improving the System

- * Federal, States and lab community (ILI) should work together to develop and present training for government incident response staff and laboratories
- * EPA, ACIL, APHL should encourage their members to participate in upcoming ERLN/WLA exercises
- * EPA, APHL, ACIL should better communicate the benefits to participation in the network with their members

ERLN Fact Sheets

You can find useful information on the ERLN webpage

<https://www.epa.gov/emergency-response/environmental-response-laboratory-network>

- * About ERLN
- * Membership and Benefits
- * Who should join?
- * Program Partners