



The environmental Laboratory Response Network (eLRN)

OSC Readiness Training

February 5, 2008



The Rumor Mill



- ◆ eLRN is another Contract Lab Program
- ◆ eLRN will only apply to < 1% of my workload
- ◆ eLRN = chemical warfare agent analytical capabilities in a few regions, right?
- ◆ HQ is going to make us use it just like SEDD
- ◆ It will make my response times slower and cost more money
- ◆ eLRN refers to electronic learning??



Agency Goals



- ◆ **Environmental laboratory infrastructure realignment to meet anticipated high demand of large scale event**
- ◆ **Organized capability and preparedness**
- ◆ **Leverage and/or upgrade existing capabilities**
- ◆ **High quality data to meet EPA's responsibilities**



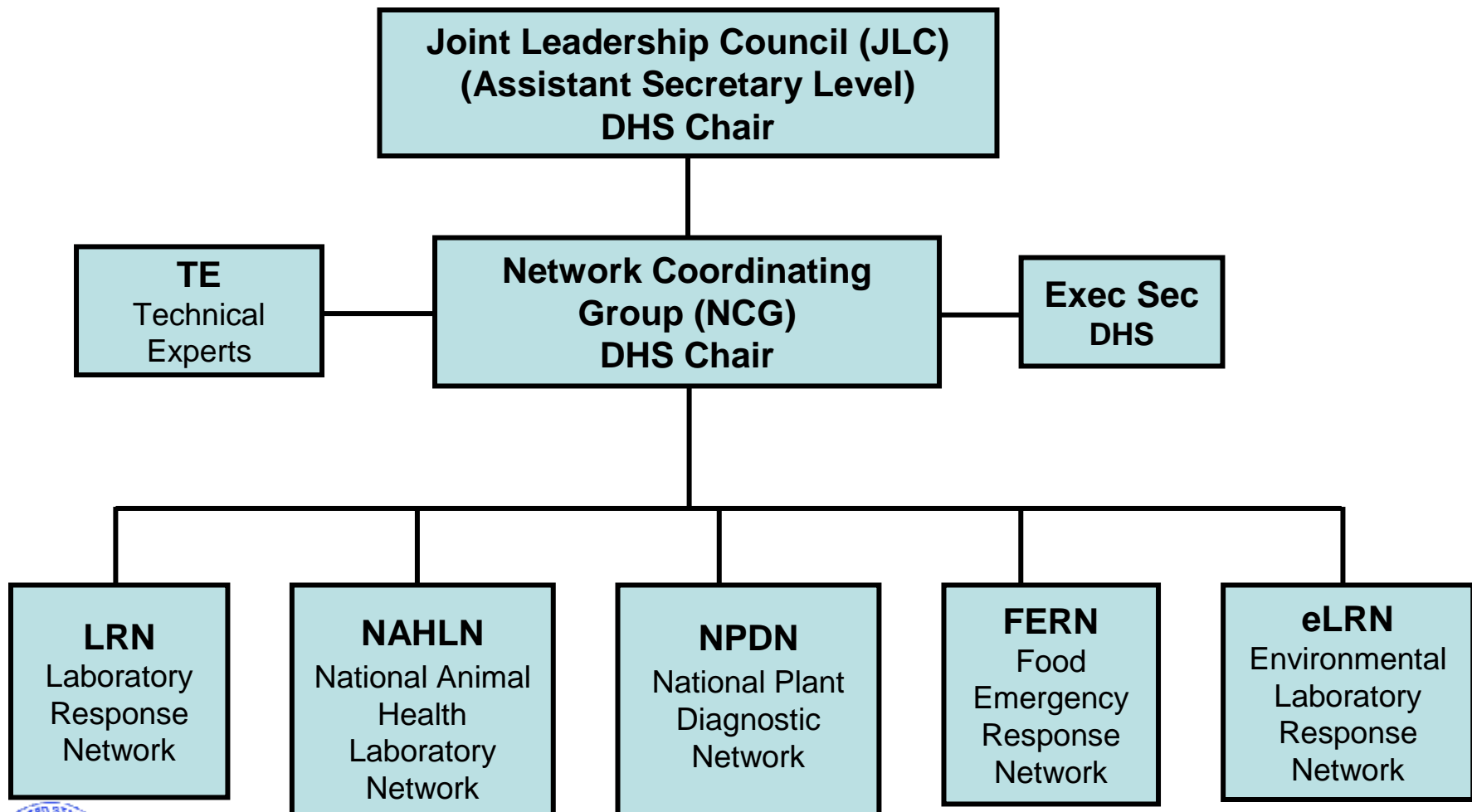
eLRN Framework



- ◆ **Vision: environmental Laboratory Response Network**
 - all environmental media
 - all hazards: Toxic Industrial Chemicals, Chemical Warfare Agents, Biological Agents, and Radiological Agents
- ◆ **Cross-Agency Coordination and Communication**
- ◆ **Federal/State/Local/Commercial Lab Network Coordination**



ICLN Organizational Structure



ICLN Response Matrix

	Chemical					Biological			
	Lab Support to Phase of Response					Lab Support to Phase of Response			
	Monitoring/surveillance	Incident Response	Remediation	Forensics		Monitoring/surveillance	Incident Response	Remediation	Forensics
Human Clinical	HHS	HHS	HHS	FBI	Human Clinical	HHS	HHS	HHS	FBI
Environmental	EPA	EPA	EPA	FBI	Environmental	HHS	HHS	EPA	FBI
Food	USDA/HHS	USDA/HHS	USDA/HHS	FBI	Food	USDA/HHS	HHS/USDA	USDA/HHS	FBI
Animal	USDA	USDA	USDA	FBI	Animal	USDA	USDA	USDA	FBI
Plant	USDA	USDA	USDA	FBI	Plant	USDA	USDA	USDA	FBI
Drinking Water	EPA	EPA	EPA	FBI	Drinking Water	EPA	EPA	EPA	FBI



* JLC agreed to RFAs identified for each phase of response

ICLN Response Matrix continued

	Radiological			
	Lab Support to Phase of Response			
	Monitoring/surveillance	Incident Response	Remediation	Forensics
Human Clinical	HHS	HHS	HHS	FBI
Environmental	EPA	DOE/ EPA	EPA	FBI
Food	USDA/ HHS	USDA/ HHS	USDA/ HHS	FBI
Animal	USDA	USDA	USDA	FBI
Plant	USDA	USDA	USDA	FBI
Water	EPA	EPA	EPA	FBI



Making It So



- ◆ **FY07 Funding Appropriated: \$9.5 million**
- ◆ **OEM Reorg to create Homeland Security Laboratory Response Center**
- ◆ **Homeland Security Laboratory Response Workgroup**
- ◆ **Intra-agency coordination with Office of Water and Office of Radiation and Indoor Air**
- ◆ **Support from Department of Homeland Security to Develop Chemical Warfare Agent Capability**



Getting to Big “E”: Goals



- ◆ **Ensure sufficient laboratory capacity**
- ◆ **Develop capabilities where gaps exist**
- ◆ **Scalability – day-to-day to large scale events**
- ◆ **Standardized approaches, where applicable:**
 - **Methods**
 - **Electronic Data Deliverable and Data Review**
 - **Quality**
- ◆ **Sustainable funding**



Where Are We Now?



- ◆ **Membership criteria finalized**
- ◆ **Self inspection checklist/application finalized**
- ◆ **Draft Operating Guidance for Member Labs under development**
- ◆ **Standardized Analytical Methods Developed**
- ◆ **Prototype Chemical Warfare Agent Lab Candidates Selected**
- ◆ **Rad and Drinking Water programs proceeding**



Process and Players



◆ Process:

- Work Issues via EPA HSLRWG
- Meetings: Lab Chiefs, RS&T Division Directors, APHL, ACIL, Removal Managers, OSCs
- Participation in the ICLN

◆ Players:

EPA: Regional lab managers/staff, OW, ORIA, OPPTS, OEI, NHSRC, OEM, including NDT, ERT, OSCs and a removal manager

Others: DHS, HHS, FBI, APHL



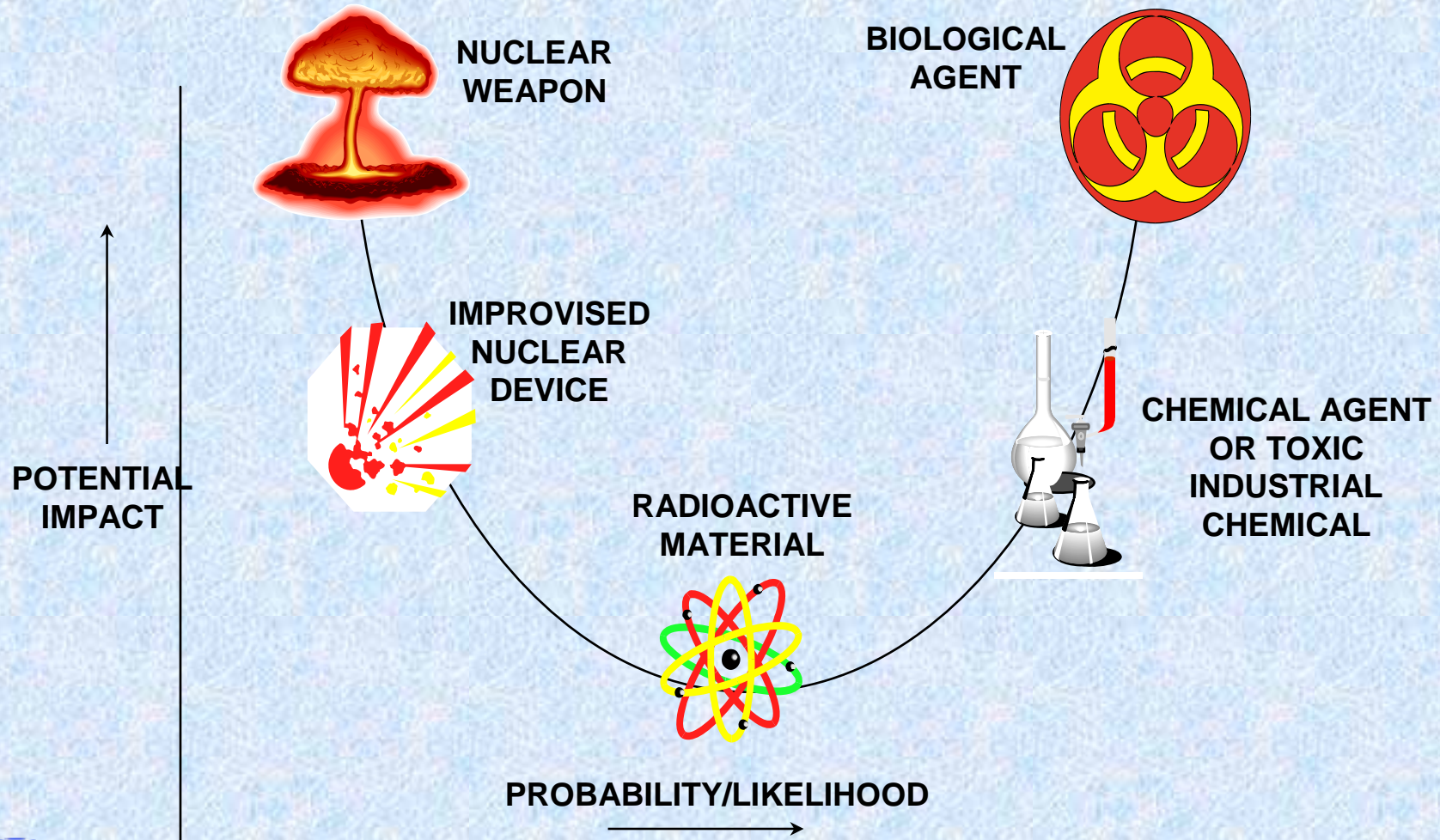
How Does the eLRN Work?



- ◆ **Managed through Homeland Security Laboratory Response Center (HSLRC), OEM, OSWER**
- ◆ **Designed to address laboratory capability and capacity to meet environmental analytical needs from initial response through recovery**
- ◆ **Vision is for a day-to-day support network that can seamlessly support events at any level for covered contaminants from member laboratories of known quality**
- ◆ **Lab assets obtained through current ICS structures or by request through other appropriate channels**



Threat Probabilities



**Edgewood Chemical and Biological Center (ECBC)
Assessment**

Current Lab Capacities



◆ Toxic Industrial Chemicals

- EPA Regional Labs, State Labs, EPA Contract Lab Program, potential access to large commercial community

Estimated Capacity-8,500 samples/week (OK)

◆ Radiological Agents

- EPA, State, Commercial, and other Federal labs

Estimated Capacity-4,700 samples/week (Need 7,500 up)

◆ CWA

-Capacity from Federal and Commercial labs

BOAs in place to access commercial CWA facilities

Interagency Agreement with DOD ECBC

Estimated Capacity-1-2,000 samples/week (Need 5,000 up)



EPA/DOD Surety Program



- ◆ **Received approval for DOD contractors to expand current CWA authorizations to support EPA's response and remediation needs, and methods research in collaboration with EPA NHSRC**
- ◆ **Second IAG/approval allows EPA use of ultra-dilute CWA standards for research and calibration of instruments to run CWA samples in eLRN labs**
- ◆ **EPA IAG with ECBC for logistics for ultra-dilute agent standards prep and transfer**



Building Fixed CWA Capacity



- ◆ **DHS funded three prototype fixed labs during FY 2007 in the Northeast/Mid-Atlantic**
- ◆ **Second round completed for Southeast, Southwest, West, and Northwest with DHS/EPA funding during 2008**
- ◆ **When operational, will add a potential 3,500 CWA samples per week to existing capacity**
- ◆ **Method issues remain-also see SAM Document**



Portable High-Throughput Integrated Laboratory Identification System (PHILIS)



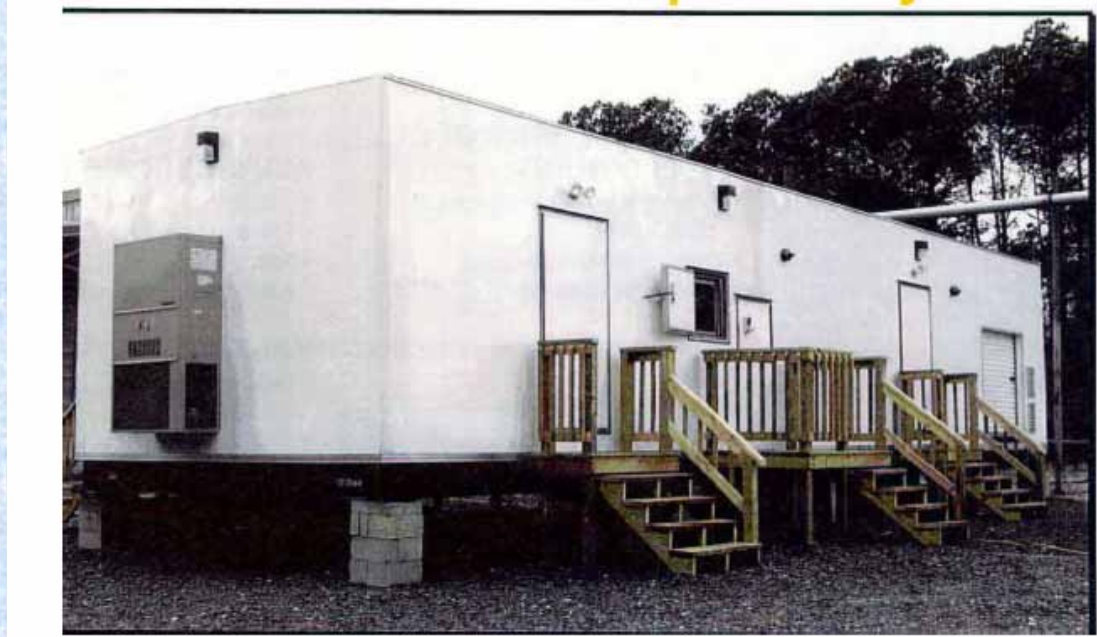
- ◆ Originally a high-throughput screening system designed to identify and quantify TICs and CWAs above PEL
- ◆ Redesign of system, niche, and integration with EPA response needs completed
- ◆ All 3 units delivered to EPA
- ◆ PHILIS II under design with delivery in March 2008



All Hazard Receipt Facilities



- ◆ **Design & Test Modular All Hazard Receipt Unit for Unknowns**
 - **Combined Effort of EPA, DHS, DOD and other Agencies, to develop and test prototype designs**
 - **Final protocols and procedures ready for testing**
 - **Two prototypes delivered Fall 06**
 - **Both assessed**
 - **High identification rates of surrogates**



Radiological Working Group



- ◆ **ICLN sponsored Radiological Working Group**
- ◆ **Charged to evaluate current radioanalytical laboratory capability, capacity, and competency to respond to a radiological dispersion device (RDD)**
- ◆ **Participants include DHS, EPA, CDC, DOE, FDA, DOD, and NIST**
- ◆ **Focus on pilot projects similar to CWA to increase Rad capabilities during INS**
- ◆ **Two pilot projects increase potential capacity by 600 samples per week**



Next Steps



◆ External

- Partner with other Agencies to address gaps in environmental analyses
- Formally establish the eLRN and expand the national capacity for Chemical, Biological and Radiological analysis in environmental samples
- Participate with ICLN Networks, /MOUs, IAGs
- Outreach to States, other stakeholders

◆ Internal

- Roll out eLRN
- Integrate eLRN into response program
- Continue work on Rad/WLA
- Continue projects: All Hazard Receipt Facilities/PHILIS/Fixed Labs
- Continue NHSRC activities on methods



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