

AFTER ACTION REPORT



2012 Nevada Bio-Hazard Response and Recovery Exercise

October 30, 2012

Las Vegas Readiness Center
4500 W Silverado Ranch Boulevard, Las Vegas, NV



Sponsored By



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Executive Summary

The Nevada 2012 Bio-Hazard Response and Recovery tabletop exercise goal was to coordinate and build relationships with the State of Nevada, Clark County and other local response organizations for planning, prevention and preparedness. The exercise planning team was composed of numerous and diverse agencies, including local, state and federal agencies.

Based on the exercise planning team's deliberations, the following objectives were developed for the exercise:

- Objective 1: Operational Coordination
- Objective 2: Hazardous Materials Decontamination and Clean-Up
- Objective 3: Protection of the Water Supply
- Objective 4: Data Management
- Objective 5: Risk Communications

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

MAJOR STRENGTHS

The major strengths identified during this exercise are as follows:

- The exercise served as an important next step in exploring the sustained response and recovery elements of a bio-hazard incident.
- Broad representation from local, state and federal stakeholders provided for engaged and informed discussion.
- The exercise demonstrated a strong capacity in Southern Nevada for coordination between local, state and federal partners.

PRIMARY AREAS FOR IMPROVEMENT

Throughout the exercise, several opportunities for improvement in Nevada's ability to respond to a wide area anthrax incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Though general feedback received showed that most players felt there was good cross-agency representation for the exercise, it was identified that there were some key players did not participate in the exercise that would have added value to the discussion.
- Currently there is no plan to ensure consistent data management practices across local, state and federal agencies during a bio-hazard response.
- Currently there is no plan to ensure consistent risk communications practices across local, state and federal agencies during a bio-hazard response.

As with all exercises the work done here should be built upon in future training and exercises. Drawing on the information presented in this report, emergency response planners and responders in Southern Nevada should conduct operational exercises focusing on the objectives above with a focus on data management and risk communications.



Pictured Above (from right to left): Stephen Anderson, LVVWD; Jeffrey Erwin, NDEP; Nick Agle, NVARNG CST; Donn Zuroski, US EPA; Col. Gregory Butts, DoD, DCO RIX; Robert Scripp, FEMA; Steven Kramer, SNHD; Dan Mackie, NSHD; Irene Navis, CCOEMHS

EXERCISE OVERVIEW

EXERCISE DETAILS

Exercise Name: 2012 Nevada Bio-Hazard Response Exercise

Type of Exercise: Tabletop Exercise

Start/End Date: Tuesday, October 30, 2012

Duration: One day (6 hrs)

Locations:

- Las Vegas Readiness Center, 4500 W. Silverado Ranch Boulevard, Las Vegas, Nevada
- Nevada State Emergency Operations Center, Carson City, Nevada

Sponsors: Clark County Emergency Management, State of Nevada Department of Environmental Protection, United State Environmental Protection Agency, United States Coast Guard

Mission: Response and Recovery

Core Capabilities Tested: Planning, Public Information and Warning, Operational Coordination, Environmental Response/Health and Safety, Operational Communications, Public Health and Medical Services, Situational Assessment

Scenario Type: Bio-Hazard (Anthrax) Response and Recovery

EXERCISE DESIGN TEAM

Clark County, Nevada

- Office of Emergency Management – Irene Navis, Misty Richardson, Ric La Porte

State of Nevada

- Division of Emergency Management – Tim Cary
- Health Department – Dan Mackie
- Division of Environmental Protection – Rob Palmer, Jeff Erwin
- Nevada Army National Guard – CPT Brett Eklund

Federal Agencies

- Environmental Protection Agency – Andy Smith, Steve Merritt, Fred Stroud, Tom Dunkelman, Donn Zuroski, Randy Nattis, Erica Canzler, Bruce Macler, Marvin Young, Lance Richman, Tana Alert
- Federal Emergency Management Agency – Stephen Graves
- Health and Human Services – Kevin Sheehan

PARTICIPATING ORGANIZATIONS

- Clark County Office of Emergency Management
- Southern Nevada Health District
- Las Vegas Valley Water District
- Southern Nevada Water Authority
- Nevada Division of Emergency Management
- Nevada Division of Environmental Protection
- Nevada State Health Division
- Nevada Department of Public Safety
- Nevada Department of Transportation
- Nevada Army National Guard
- Arizona State Emergency Response Commission (AZSERC)
- U.S. Environmental Protection Agency, Regions 8, 9 & 10
- Federal Emergency Management Agency, Region IX
- U.S. Department of Defense, DCO Region IX

NUMBER OF PARTICIPANTS

- Players: 10 (Las Vegas: 9, Carson City: 1)
- Observers: 20 (Las Vegas: 16, Carson City: 4)
- Facilitators: 1
- Exercise Support: 4
- **TOTAL: 35**



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EXERCISE DESIGN SUMMARY

EXERCISE PURPOSE AND DESIGN

EXERCISE OBJECTIVES

Based on the results of the Simple Truth Exercise and the exercise planning process, the following objectives were identified by the Exercise Design Team to test in the tabletop exercise:

1. **Operational Coordination.** Identify level of activation of local, state and federal response partners for sustained response and transition to recovery operations.
2. **Hazardous Materials Decontamination and Clean-Up.** Educate responders on multi-jurisdictional decontamination and clean-up management capabilities.
3. **Protection of the Water Supply.** Review drinking water and wastewater monitoring plans, including sampling and laboratory analysis and identify decontaminated water collection methods.
4. **Data Management.** Demonstrate the ability to coordinate within and across agencies and jurisdictions the analysis, database management and interpretation of environmental sample results.
5. **Risk Communications.** Identify a communication strategy to disseminate environmental health risk messages to responders by educating responders on anthrax health risks.

CAPABILITIES TESTED

This exercise utilizes the Core Capabilities outlined in the National Preparedness Goal to serve as a basis for evaluating exercise play. The key Core Capabilities that will be tested are listed below. The Core Capabilities were designed to replace the Target Capabilities previously identified by the federal government. Recognizing that many organizations are transitioning use between these two concepts, the related Target Capabilities for each Core Capability are also included. A crosswalk of Target Capabilities to Core Capabilities can be found at <http://www.fema.gov/pdf/prepared/crosswalk.pdf>.

Common

- **Planning.** Conduct a systematic process engaging the whole response community as appropriate in the development of executable strategic, operational, and/or community-based approaches to meet defined objectives.
 - **Related Target Capabilities:** Planning
- **Public Information and Warning to the response community.** Deliver coordinated, prompt, reliable, and actionable information to the whole response community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.
 - **Related Target Capabilities:** Emergency Public Information and Warning

- **Operational Coordination.** Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
 - **Related Target Capabilities:** Emergency Operations Center (EOC) Management, On Site Incident Management

Response

- **Environmental Response/Health and Safety.** Ensure the availability of guidance and resources to address all hazards including hazardous materials, acts of terrorism, and natural disasters in support of the responder operations and the affected communities.
 - **Related Target Capabilities:** Environmental Health, Responder Safety and Health, WMD and Hazardous Materials Response and Decontamination
- **Operational Communications.** Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.
 - **Related Target Capabilities:** Communications
- **Situational Assessment.** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.
 - **Related Target Capabilities:** None

SCENARIO SUMMARY

NOTE: While based on the “Simple Truth” scenario, some elements of this scenario were modified to drive exercise play.

Initial Scenario

It is now one week after the events that were exercised in “Simple Truth.” Impacts to response agencies resulting from the initial incident have diminished and operations have normalized. Local, state and federal agencies are looking forward to what is next in the transition to recovery.

The following key events should set the stage for initial discussion:

While few are presenting with actual anthrax symptoms after 21 days, local medical facilities are still being taxed by the “worried well” requesting to see doctors based on fear of contamination both in person and by phone.

Investigation into the attack by law enforcement agencies continues, but is not a part of this exercise, except to the extent that data management and public messaging should be coordinated appropriately with the investigative efforts.

Module 1: Operational Coordination

The National Incident Management System (NIMS), the FEMA-led Joint Field Office, other EOCs from federal, State and local entities, and the Joint Information Center (JIC) have been used to manage and respond to the attack. Local, state and federal emergency management organizations remain in a response posture at the start of exercise play, but are looking toward demobilizing or transitioning their operations to address coordination of recovery efforts.

Module 2: Decontamination and Clean-Up

Decontamination/cleanup efforts will need to be coordinated. Anthrax in its spore form (the probable form for dissemination as a biological terrorism agent) would not be rapidly inactivated by environmental conditions (i.e., ultraviolet exposure or desiccation). Anthrax is hardy and resistant to environmental extremes – it is therefore long-lived in the environment. Extensive decontamination and cleanup likely will be necessary. Human and animal health implications will require considerable consultation between responsible agencies. Environmental clearance standards will have to be developed. Actions of incident-site personnel include environmental testing, identification and closure of highly contaminated areas, and provision of public information. The economic costs associated with the closure and decontamination of affected areas may run in the billions of dollars.

Module 3: Safety of the Water Supply

Access to, and the safety of the water supply is a critical component of a response that must be properly executed to be able to move forward to recovery.

Module 4: Data Management

Environmental sampling is critical to determine the safety for the continued use and occupancy of buildings and other structures in the contamination zone. Prioritization of environmental sampling will be a problem, particularly in face of laboratory limitations. Adequacy of sampling will also be an issue. Other data streams (e.g., epidemiological, etc.,) will need to be managed.

Based on the morning Data Management workshop, this module will serve as a scenario driven discussion as to how coordination of data management across agencies will take place as well as how the data will be presented.

Module 5: Risk Communications

Both emergency responders and the public will need to be provided timely and accurate information regarding the level and areas of contamination, the respective health risks, and protective actions that can be taken to minimize exposure. Communications will need to be coordinated both horizontally and vertically and across disciplines. Depending on the size and location of the attack, it may be necessary to notify and involve governments and agencies in other states, tribes, and foreign governments and agencies.

EXERCISE ANALYSIS

This section of the report reviews the performance of the exercised capabilities. Based on the format and structure of the exercise, observations are organized by objective. Each objective is followed by related observations, which include analysis, and recommendations for program enhancement. Also included is a set of general observations about level of exercise participation. All observations are based on documented exercise feedback and observer/evaluator notes.

GENERAL OBSERVATIONS

Observation 0.1: *Strength* – The majority of participants agreed that the exercise addressed the need to start thinking about the transition to recovery during a bio-hazard incident and that it served as a great start for future planning and coordination.

Analysis: Building on the “Simple Truth” exercise, it was noted that this tabletop took it one step further in looking at long-term response and recovery exercises. This was well-received by all participants, but highlighted the need to focus on recovery planning.

Recommendations:

1. Consider development of local bio-hazard incident recovery plans that link to state and federal recovery planning efforts. Link to the National Disaster Recovery Framework as appropriate.
2. Conduct follow up operational exercise around bio-hazard incident recovery actions.

References: National Disaster Recovery Framework; National Response Framework (ESF 14 – Long-Term Community Recovery, ESF 10 – Oil and Hazardous Materials, ESF 8 – Public Health and Medical Services); State and Local Recovery Plans

Observation 0.2: *Area for Improvement* – Though general feedback received showed that most players felt there was good cross-agency representation for the exercise, it was identified that there were some key players that did not participate in the exercise that would have added value to the discussion.

Analysis: While the scenario for the tabletop was tailored to focus on environmental response, it was identified that some agencies, while not playing a primary role in bio-hazard response and recovery, were critical to the discussion either because of the impact the response might have on them (airport, gaming industry), or their role in other aspects of the response that were not being addressed in the exercise (fire, law enforcement). Particular issues regarding some of these agencies are discussed in observations and recommendations below.

Recommendations:

1. Include the following agencies in future bio-hazard response and recovery exercises:
 - Public Works agencies
 - Law Enforcement

- Fire Services
- Airport
- Gaming Industry
- Utilities (NVEnergy, Wastewater utilities)

References: Exercise Sign-In Sheets

OBJECTIVE 1: Operational Coordination

Observations 1.1: *Strength* – The Clark County MACC serves as the primary venue for allowing coordination between various command structures in the response.

Analysis: Much of the discussion around use of the MACC involved a debriefing of how things played out during the “Simple Truth” exercise. The MACC had representatives from local agencies as well as state and federal liaisons. It is assumed that the MACC would continue to be the nerve center for extended response operations and the transition to recovery.

Recommendations:

1. Continue to train on MACC operations. *See “Simple Truth” AAR.*

Observations 1.2: *Strength* – State and local public health agencies have a high level of preparedness to support bio-hazard response and recovery.

Analysis: The Nevada State Public Health Division has done a high level of planning to support bio-hazard response and recovery with a focus on epidemiology and mass prophylaxis and could share this information with other stakeholders.

Recommendations:

1. Share bio-hazard-related public health plans with local, state and federal stakeholders.
2. Train bio-hazard response community on the Epi Curve and how it impacts long-term response and recovery operations.
3. Public health plans should also be reviewed to ensure they support environmental response as appropriate .

References: Observer/Evaluator Notes; State and Local Public Health Response Plans

Observations 1.3: *Area for Improvement* – There is some confusion around how local, state and federal agencies command their respective response operations in terms of command.

Analysis: One of the questions that arose throughout the exercise was “who’s in charge?” There seemed to be a need to better define the relationship between the MACC, the SEOC, the JFO (if established) and address what role public health has as lead agency for a bio-hazard response.

Recommendations:

4. Provide additional ICS trainings with a focus on Multi-Agency Coordination and Unified Command.
5. Ensure linkage between response plans at the local (CEMP), state (SCEMP) and federal (NRF) level

References: Observer/Evaluator Notes; Local Emergency Response Plans; Nevada State Comprehensive Emergency Management Plan; National Response Framework

OBJECTIVE 2: Hazardous Materials Decontamination and Clean-Up

Observation 2.1: Strength – Southern Nevada has a strong capability to monitor the impacts of a bio-hazard incident.

Analysis: The Metropolitan Police Department maintains a specialized All-Hazards Regional Multi-Agency Response (ARMOR) team that can support environmental sampling and monitoring operations during bio-hazard recovery operations. There is also a Laboratory Response Network (LRN) in southern Nevada that can support environmental sampling (CST, BioWatch) and epidemiological sampling (Nevada State Labs).

Recommendations:

1. Test deployment of local resources to support sampling operations in an operational exercise format.

References: Observer/Evaluator Notes; ARMOR Standard Operating Procedures

Observation 2.2: Strength – Sampling operations and laboratory support can be augmented by requesting support from CSTs.

Analysis: Civil Support Teams will most likely be used to support sampling activities. However, CSTs may be overwhelmed and there may be a need to identify additional laboratory support to ensure efficient processing of samples and to avoid bottlenecks.

Recommendations:

1. Test augmentation of sampling operations, utilizing CST assets, in an operational exercise format.

References: Observer/Evaluator Notes; CST Standard Operating Procedures

Observation 2.3: Area for Improvement – Some discussion was had around how decontamination priorities are set.

Analysis: In a bio-hazard event, ESF 10, co-led by EPA and USCG will be tasked with decontamination and clean-up operations, but decontamination priorities would be set by the Unified Command on the advice of Public Health. Contamination may be so widespread and uncontrollable that any clean-up would have to focus on the hottest spots and the most critical infrastructure and facilities.

Recommendations:

1. Develop decontamination priority-setting guidance to assist Unified Command in alignment with critical infrastructure planning efforts.

References: Observer/Evaluator Notes; National Response Framework (ESF 10 – Oil and Hazardous Materials)

Observation 2.4: Area for Improvement – The airport and gaming industry were identified as a key players missing from the exercise that will be severely impacted by decontamination and clean-up decisions made during the response and recovery efforts.

Analysis: The airports and gaming industry’s role in the local economy, as well as its potential as genesis point for spread of contamination makes it a high profile and high priority facility for decontamination and clean-up efforts. There would be a very strong push to keep these facilities operational.

Recommendations:

1. Include the airport and gaming industry in future exercises with a focus on decontamination operations.

References: Observer/Evaluator Notes

OBJECTIVE 3: Protection of the Water Supply

Observation 3.1: Strength – Local water/wastewater utilities are able to support each other through participation in NVWARN, an intrastate mutual aid and assistance program.

Analysis: Additional information on NVWARN can be found at www.nvwarn.org.

Recommendations:

1. Ensure local water/wastewater utilities are members of NVWARN, as appropriate.
2. Conduct water/wastewater utility-focused exercise to test activation and implementation of mutual aid support.

References: Observer/Evaluator Notes; www.nvwarn.org

Observation 3.2: Area for Improvement – Additional education efforts are needed on the science behind anthrax spore impact on the water supply and what the risks are.

Analysis: There were questions raised around the behavior of aerosolized anthrax and its behavior in the environment that could be better understood by local responders and water/wastewater utilities.

Recommendations:

1. Identify appropriate subject matter experts to conduct additional awareness education around anthrax and its potential impact on the water supply.
2. Identify best practices for addressing anthrax contamination in the water supply.

References: Observer/Evaluator Notes; [Baseline](#) Scientific Case Studies (access through NSHD)

Observation 3.3: Area for Improvement – It was unclear to what level water/wastewater utilities have incorporated considerations for a bio-hazard event in their response plans.

Analysis: Drinking water programs within the State of Nevada most likely will need support with respect to bio-hazard or chemical hazard response. It was also noted that for drinking and wastewater services, continuity of operations and necessary clean-up of contamination would be primary issues.

Recommendations:

1. Review local water/wastewater response plans to ensure bio-hazard response and recovery are considered.
2. Develop a sampling protocol for public water systems based on existing Coliform sampling plans.
3. Regularly test bio-hazard response capabilities.

References: Observer/Evaluator Notes

OBJECTIVE 4: Data Management

Observation 4.1: Strength – EPA maintains Scribe software to support management of environmental data.

Analysis: EPA presented on the Scribe tool in the workshops that preceded the exercise.

Recommendations:

1. Conduct trainings for local response agencies on the Scribe system to ensure a consistent approach to data collection and input.

References: EPA Products and Tools: <http://www.epa.gov/superfund/programs/clp/products-tools.htm>; Data Management Workgroup Report (Attachment A)

Observation 4.2: *Strength* – There appears to be adequate staff support for data collection.

Analysis: NDEP has the capability to supply technical personnel and manpower to support data collection. However, the training and experience of those personnel varies widely and additional training is required to ensure a more robust capability. At this time there is no existing protocol as to how the agency would respond to a request for this type of support.

Recommendations:

1. Review NDEP plans and revise to incorporate support to data collection and management activities in support of a bio-hazard response.
2. Conduct additional trainings for NDEP staff around biological field sampling.

Observation 4.3: *Area for Improvement* – There are different methods for collecting environmental and human (epidemiological) samples.

Analysis: Public health uses systems such as Health Alert Network (HAN) software to manage and disseminate public health/epidemiological data.

Recommendations:

1. Review existing data management tools and determine strategies to best utilize systems in a coordinated effort.

References: Observer/Evaluator Notes; Data Management Workgroup Report (Attachment A)

Observation 4.4: *Area for Improvement* – Currently there is no plan to ensure consistent data management practices across local, state and federal agencies during a bio-hazard response.

Analysis: Discussion was had, and initial strategies were documented regarding what elements would be important in a Data Management Plan for a bio-hazard incident. See Data Management appendix.

Recommendations:

1. Develop a template Data Management Plan for use by local, state and federal agencies to manage collection of environmental and epidemiological data during bio-hazard response and recovery operations.

References: Observer/Evaluator Notes; Data Management Workgroup Report (Attachment A)

OBJECTIVE 5: Risk Communications

Observation 5.1: *Strength* – Good understanding of how a Joint Information Center (JIC) would be utilized to coordinate messaging was demonstrated throughout the exercise.

Analysis: The JIC would serve as the hub to manage risk communications in coordination with the Unified Command. Messaging should be driven by management goals and decisions.

Recommendations:

1. Develop pre-canned messages for use during a prolonged anthrax response and recovery operations. The CDC has resources that can support development of anthrax-specific messaging.

References: Observer/Evaluator Notes; Risk Communications Workgroup Report (Attachment B); NSHD Public Information and Communication Plan

Observation 5.2: Area for Improvement – Currently there is no plan to ensure consistent risk communications practices across local, state and federal agencies during a bio-hazard response.

Analysis: Discussion was had, and initial strategies were documented regarding what elements would be important in a Risk Communications Plan for a bio-hazard incident. See Risk Communications appendix.

Recommendations:

1. Develop a template Risk Communications Plan for use by local, state and federal agencies to manage dissemination of risk information to responders and the public during bio-hazard response and recovery operations. The plan should be designed to complement existing risk communications plans such as the SNHD Crisis Emergency Risk Communication Plan.

References: Observer/Evaluator Notes; Risk Communications Workgroup Report (Attachment B)

Observation 5.3: Area for Improvement – The need was identified to differentiate between advice to responders and advice to residents regarding protective actions.

Analysis: Conservative protocols for responders entering a contaminated area may not be appropriate, or feasible, for the general population.

Recommendations:

1. Develop risk communications protocols that address the unique needs of responders versus the general population.

References: Observer/Evaluator Notes; Risk Communications Workgroup Report (Attachment B)

Observation 5.4: Area for Improvement – The need for ensuring use of plain language and common terminology was identified as it relates to communicating protective actions to responders and the public.

Analysis: One topic in particular that came up a number of times was the distinction between identification of the exclusion zone to guide responders versus the use of the more general hot/warm/cold zones.

Recommendations:

1. Review local, state and federal hazardous materials/environmental response and protective action plans to ensure common terminology.

References: Observer/Evaluator Notes; NIMS and Use of Plain Language:

http://www.fema.gov/pdf/emergency/nims/plain_lang.pdf



CONCLUSION

The Nevada 2012 Bio-Hazard Response and Recovery tabletop exercise provided an opportunity for local, state and federal stakeholders to explore Nevada's ability to conduct sustained response and recovery operations during a wide area anthrax release. The exercise resulted in an improvement plan that provides guidance for Nevada to continue to build its bio-hazard incident response and recovery capabilities.



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ATTACHMENT A DATA MANAGEMENT WORKGROUP REPORT

GOAL

The goal of this workgroup is to discuss local, state and federal data management procedures relating to data management. The expected output is a series of strategies to enhance coordination data management during a bio hazard event in Southern Nevada with an end goal of a data management plan template.

PARTICIPATING ORGANIZATIONS

- Nevada National Guard
- Las Vegas Valley Water District
- FEMA Region IX
- USEPA, Region 9
- USEPA, Region 10
- Nevada Division of Environmental Protection
- Nevada State Public Health Division
- Southern Nevada Health District

IDENTIFIED ISSUES

- What data exists within each agency?
- How can we coordinate between agencies to ensure a consistent approach to data management?
- What tools do we have in place to support data management?
- What data is relevant?
- Is the 'zero growth' spore standard appropriate for a wide area anthrax event?
- At the end of the project who will be responsible for the data and where will it reside?

STRATEGIES

- Data management planning should involve two phases:
 - **Phase 1 – Delineation**
 - Where is the hazard area?
 - What is the risk?
 - Data may be of lower quality with an emphasis on timeliness
 - **Phase 2 – Clearance/Reoccupation**
 - Data validation – need for sampling plans and quality assurance plans
 - Data needs to be of a higher quality and confirmed by SMEs
- Data Management systems and software
 - Utilize the Laboratory Integrated Management System (LIMS)
 - Link to WebEOC, HAN, and other systems to ensure consistency
- Develop a template sampling plan and identify how it will be utilized by the command structure, e.g. utilization of the plan in the Environmental Unit

RECOMMENDATIONS

- Address privacy concerns as they relate to human/epidemiological data.
- Engage the right people to plan for and coordinate data management.
- Identify resources for data collection, management, dissemination (capability assessment) and maintenance/storage.



ATTACHMENT B RISK COMMUNICATIONS WORKGROUP REPORT

GOAL

The goal of this workgroup is to discuss local, state and federal procedures relating to risk communications. The expected output is a series of strategies to enhance coordination of risk communications during a bio hazard event in Southern Nevada with an end goal of a risk communications plan template.

PARTICIPATING ORGANIZATIONS

- Las Vegas Valley Water District
- Nevada Division of Environmental Protection
- US Department of Defense, ECO Region 9
- FEMA Region 9
- USEPA Region 9
- Clark County Office of Emergency Management and Homeland Security
- Arizona State Emergency Response Commission
- Southern Nevada Health District

STRATEGIES

- Need dual-messaging for responders and the general population
 - Medical countermeasures
 - Personal Protective Equipment
- Utilize existing tools from the State Public Health Division and the CDC
- Identify and utilize SMEs
- Ensure risk communications are vetted by the command structure (managed through the JIC and vetted by the Unified Command)
- Coordinate messaging with the gaming industry
- Leverage community-based and faith-based organizations

RISK COMMUNICATIONS PLAN TEMPLATE

1. Purpose – consistent, aligned messages based on sciences, SMEs and credible spokespersons
2. Assumptions
 - a. Organization/Information Flow (IC → MACC/JIC → Public)
3. Strategies During and After
 - a. Public – residents/visitors
 - b. First responders/medical
4. Common key messages
 - a. What is the risk?
 - b. Protective actions
5. Specialized messages
 - a. Remedies
6. Contacts
7. Resources

ATTACHMENT C IMPROVEMENT PLAN

Objective	Observation	Recommendation	Action Item	Priority	Program Element	Responsible Party	Timeframe
General	0.1	Consider development of local bio-hazard incident recovery plans that link to state and federal recovery planning efforts. Link to the National Disaster Recovery Framework as appropriate.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	CCOEMHS, SNHD	2013-2014
General	0.1	Conduct follow up operational exercise around bio-hazard incident recovery actions.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Exercise	CCOEMHS, NSHD	2014-2015 (MY-TEP)
General	0.2	Include the following agencies in future bio-hazard response and recovery exercises: <ul style="list-style-type: none"> • Public Works agencies • Law Enforcement • Fire Services • Airport • Gaming Industry • Utilities (NVEnergy, Wastewater utilities) 	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Organization	CCOEMHS	2014-2015 (MY-TEP)
OC	1.1	Continue to train on MACC operations. See "Simple Truth" AAR.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Training	CCOEMHS, NVDEM	2013-2014

Attachment C. Improvement Plan

Objective	Observation	Recommendation	Action Item	Priority	Program Element	Responsible Party	Timeframe
OC	1.2	Share bio-hazard-related public health plans with local, state and federal stakeholders.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	HHS/CDC, NSHD, SNHD	2013 (4 to 6 months)
OC	1.2	Train bio-hazard response community on the Epi Curve and how it impacts long-term response and recovery operations.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Training	NSHD, SNHD	2013 (4 to 6 months)
OC	1.2	Public health plans should also be reviewed to ensure they support environmental response as appropriate.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	NSHD, SNHD, NDEP	2013 (4 to 6 months)
OC	1.3	Provide additional ICS trainings with a focus on Multi-Agency Coordination and Unified Command.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Training	NVDEM, CCOEMHS	2013-2014
OC	1.3	Ensure linkage between response plans at the local (CEMP), state (SCEMP) and federal (NRF) level	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	CCOEMHS, NDEM, FEMA R-IX	2013-2014
HM D & C	2.1	Test deployment of local resources to support sampling operations in an operational exercise format.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Exercise	CCOEMHS	2013-2015 (MY-TEP)
HM D & C	2.2	Test augmentation of sampling operations, utilizing CST assets, in an operational exercise format	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Exercise	NVNG, ARMOR	2013-2015 (MY-TEP)

Objective	Observation	Recommendation	Action Item	Priority	Program Element	Responsible Party	Timeframe
HM D & C	2.3	Develop decontamination priority-setting guidance to assist Unified Command in alignment with critical infrastructure planning efforts.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	EPA	2013-2014
HM D & C	2.4	Include the airport and gaming industry in future exercises with a focus on decontamination operations.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Exercise	CCOEMHS	2013-2015 (MY-TEP)
PWS	3.1	Ensure local water/wastewater utilities are members of NVWARN, as appropriate.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Organization	Local Water Districts	2013-2014
PWS	3.1	Conduct water/wastewater utility-focused exercise to test activation and implementation of mutual aid support.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Exercise	Local Water Districts	2013-2014
PWS	3.2	Identify appropriate subject matter experts to conduct additional awareness education around anthrax and its potential impact on the water supply.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Training	NSHD, EPA	2013 (4 to 6 months)
PWS	3.2	Identify best practices for addressing anthrax contamination in the water supply.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	EPA, Local Water Districts	2013-2014

Attachment C. Improvement Plan

Objective	Observation	Recommendation	Action Item	Priority	Program Element	Responsible Party	Timeframe
PWS	3.3	Review local water/wastewater response plans to ensure bio-hazard response and recovery are considered.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	Local Water Districts	2013-2014
PWS	3.3	Develop a sampling protocol for public water systems based on existing Coliform sampling plans.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	Local Water Districts, NDEP	2013-2014
PWS	3.3	Regularly test bio-hazard response capabilities.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Exercise	NDEM, CCOEMHS	2013-2015 (MY-TEP)
DM	4.1	Conduct trainings for local response agencies on the Scribe system to ensure a consistent approach to data collection and input.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Training	EPA	2013-2014
DM	4.2	Review NDEP plans and revise to incorporate support to data collection and management activities in support of a bio-hazard response.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	NDEP	2013-2014
DM	4.2	Conduct additional trainings for NDEP staff around biological field sampling.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Training	NDEP	2013-2014

Objective	Observation	Recommendation	Action Item	Priority	Program Element	Responsible Party	Timeframe
DM	4.3	Review existing data management tools and determine strategies to best utilize systems in a coordinated effort.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Organization	EPA, NSHD, SNHD	2013-2014
DM	4.4	Develop a template Data Management Plan for use by local, state and federal agencies to manage collection of environmental and epidemiological data during bio-hazard response and recovery operations.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	FEMA R-IX, ESF-8, ESF-10, NSHD	2013-2014
RC	5.1	Develop pre-canned messages for use during a prolonged anthrax response and recovery operations. The CDC has resources that can support development of anthrax-specific messaging.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	FEMA R-IX, ESF-8, ESF-10, NSHD, and state/local POC	2013-2014
RC	5.2	Develop a template Risk Communications Plan for use by local, state and federal agencies to manage dissemination of risk information to responders and the public during bio-hazard response and recovery operations.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	FEMA R-IX, ESF-8, ESF-10 and state/local POC	2013-2014

Attachment C. Improvement Plan

Objective	Observation	Recommendation	Action Item	Priority	Program Element	Responsible Party	Timeframe
RC	5.3	Develop risk communications protocols that address the unique needs of responders versus the general population.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	FEMA R-IX, ESF-8, ESF-10 and state/local POC	2013-2014
RC	5.4	Review local, state and federal hazardous materials/environmental response and protective action plans to ensure common terminology.	TBD	<input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Planning	FEMA R-IX, ESF-8, ESF-10 and state/local POC	2013-2014

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