



Bakersfield, California
Metropolitan Medical Response System

DHHS Contract #233-02-0041
Modification #2

MMRS Contract Final Report

X. Greater Bakersfield MMRS Final Report

The MMRS Planning process has proven to be a daunting and challenging task but it has also brought together representatives from various response agencies, government entities, and public & private stakeholders to take part in the Mass Casualty planning process. Terrorism is a very real threat that we all must address. When a WMD event occurs it will be a local problem to deal with and effectively manage, especially for the first twenty-four to forty-eight hours. Decisions will have to be made, equipment and supplies will have to be acquired, and resources will have to be prioritized and allocated. The MMRS planning process and the sub-committee structure that has been established will make these tasks easier for first responders, public health professionals, and health care providers, and must be continued in order to keep our plan up-to-date and effective.

Throughout the entire planning process we have taken on and overcome impediments that have slowed down or defeated other mass casualty plans in the greater Bakersfield area. The terrorism threat and the encompassing effects of WMD events have helped to reinforce the idea that no one city or entity can effectively care for the large numbers of casualties that may result from a terrorist attack or WMD incident. The most important lesson that has been learned in this process is that this MMRS Plan can and should be used in daily emergency responses in the City of Bakersfield and Kern County. Regardless if an event is caused by a terrorist attack on the population, this MMRS Plan and the resources identified within it can be used to effectively respond to and manage any mass casualty incident. The equipment and the pharmaceuticals that have been and will be purchased with the contract funds associated with this MMRS Plan will be available to be called upon and put into service when needed.

In addition, the sub-committee structure that has been established for the MMRS Planning process has demonstrated that we can bring together individuals representing specific professions or specialties to discuss options and ideas to overcome problems that have hampered effective multi-jurisdictional operations in the past. The members of all of the MMRS sub-committees that have been meeting have agreed that this planning process has been beneficial for everyone involved and they intend to maintain regularly scheduled meetings to keep the lines of communication open and discuss pertinent issues that affect daily operations in the greater Bakersfield area.

The Bakersfield MMRS Planning process will continue through the MMRS Contract Modifications (#2 & #3) as detailed in the contract with the U.S. Public Health Service. The information contained in the Plan will be updated as necessary and as the Plan is tested it shall be modified to reflect any changes brought about through the testing process.

1. Bakersfield MMRS Response Capabilities (enhanced or created)

The mission of the Bakersfield Metropolitan Medical Response System (MMRS) is to coordinate and enhance existing emergency response capabilities, in order to provide a comprehensive public safety and health management response to a Nuclear, Biological, or Chemical (NBC) mass casualty incident (MCI) that may take place in the greater Bakersfield and Kern County area. What follows is a detailed listing of existing Bakersfield and Kern County response entities and their capabilities.

Bakersfield and Kern County Fire Departments

The nature of a WMD incident makes it likely that Fire Department personnel will be among the first on the scene, and thus critical to an effective response. Essential functions of firefighters in such a WMD terrorist incident include:

- Initial Command and Control (with the first emergency responder on scene assuming the role of Incident Commander [IC]).
- Impact area isolation and initial establishment of hot, warm and cold zones.
- Preliminary agent identification based on signs and symptoms (if possible).
- Initial victim care.
- Gross mass decontamination.

Bakersfield City and Kern County firefighters are trained in the use of Level “B” and/or “C” Personal Protective Equipment (PPE). Members of specialized teams, for example HAZMAT teams, are also skilled in the use of Level “A” PPE.

The Bakersfield Fire Department and the Kern County Fire Department utilize the Operations-Terrorism Management Course when training their personnel. This program was developed and produced by the California Fire Fighter Joint Apprenticeship Committee (CFFJAC). The CFFJAC has developed and adopted training standards that meet or exceed both state and national standards. The purpose of this course is to provide California’s first responders with the initial training to respond to acts of terrorism. In addition, CBDCOM First Responder training materials have been incorporated into the Bakersfield Fire Department's initial and recurrent training curriculum.

The Bakersfield Fire Department has recently been approved by County EMS to operate Firefighter/Paramedics that are hazmat trained in hot zones of IDLH atmospheres. They are informally being referred to as "Hazmedics".

Kern County Emergency Medical Services (EMS) System

The EMS system is a critical link in the MMRS planned response to a WMD incident, providing both field (on-site) medical management, as well as transportation of casualties to designated hospitals. In the field, the Emergency Medical Technicians and Paramedics are involved in triage, patient tracking, supportive care, and prophylaxis & treatment administration. Five (5) private ambulance companies and three (3) air-ambulance services also provide transport of victims/patients when necessary. The EMS capabilities of greater

Bakersfield and Kern County include initial Basic Life Support (BLS) response by the Bakersfield and the Kern County Fire Departments and Advanced Life Support (ALS) response & patient transport by local private ambulance companies. The Kern County Department of Emergency Medical Services manages EMS system resources. The Kern County Emergency Medical Services Department is the lead agency for the emergency medical services system in Kern County and is responsible for coordinating all system participants in the County. Participants include the public, emergency service providers, and hospitals throughout the County. The department provides various training programs for emergency medical services such as certification and recertification for local EMS personnel.

Bakersfield / Kern County Hospitals

Local hospitals are an indispensable part of a WMD response, providing essential emergency and continuing care. All Bakersfield and Kern County hospitals are in the process of updating their disaster plans to include guidelines for responding to chemical and biological incidents. There are five (5) hospitals in the Bakersfield area with Emergency Departments, one being a Level-II Trauma Center. These five hospitals are capable of caring for limited numbers of patients requiring ventilators, negative pressure rooms, and critical care facilities. Presently, hospital capability to provide self-sufficient patient decontamination is extremely limited, however local hospitals have ordered and shall be receiving decontamination and mass casualty equipment from the State of California through the HRSA Hospital Bioterrorism Program (detailed in section 2).

An Internet based Hospital Emergency Department (ED) Status website has been established in the Kern County area to track ED resources. This site provides real-time information on ED capacity, admission holds, staffing, and total registered patients. This website has proven to be an effective communications tool between facilities and area dispatch centers and is a likely source for future medical surveillance.

EMS providers utilize UHF radio equipment and dedicated telephone lines to contact hospitals from the field and may also be the first to alert these facilities of an MCI. Presently, inter-hospital communications is primarily through use of telephones. Alternative communications systems are being evaluated to provide hospitals with a secure network to relay information during an MCI.

A system is in place for emergency medical management of mass-casualty incidents in Kern County, including the greater Bakersfield area, which is called the Kern County Med-Alert System. The system is administered by the Kern County Department of Emergency Medical Services. This “all-risk” Med-Alert System is integrated as an annex with City of Bakersfield, Kern County, and Operational Area Emergency Plans. However, a large-scale MCI will quickly overextend existing medical personnel resources necessitating mutual aid from surrounding Operational Areas & Mutual Aid Regions and other State and Federal resources such as DMATs, NMRTs and DMORTs.

Mental Health System

Mental Health professionals are locally available to provide their critical service during a WMD response by assisting responders, victims, hospital personnel, and their families in dealing with the short and long-term consequences of a terrorist incident. These consequences include post-traumatic stress syndrome, psychosomatic illnesses, mood disturbances, and performance decrements. The Kern County Department of Mental Health (KCDMH) is responsible for providing mental health counseling services for victims of a WMD incident. Due to the numbers of people that may need these services, mutual aid from surrounding counties and private or contract providers may be necessary. The Kern County Department of Mental Health (KCDMH) has a 24-hour on-call system to access their staff and resources.

Bakersfield Police Department & Kern County Sheriffs' Department

The roles of Law Enforcement personnel in a WMD mass casualty incident are many and varied, including Command & Control. In an event when Law Enforcement personnel are first to arrive at the scene of an event, the senior officer shall assume "COMMAND" of the incident and shall direct all activity until they pass "COMMAND" to another emergency response professional. A key function of local Police and/or Sheriff's Departments is securing the perimeter in an incident involving a scene and/or providing hospital security in an incident without a scene. Additionally, the Bomb Squad bears primary responsibility for finding and defusing any secondary devices that may be present. Local Law Enforcement personnel also play a role in investigation of the terrorist event in conjunction with the FBI (the lead Federal agency in a WMD incident) and the California Department of Justice Bureau of Investigation (CBI). As the incident progresses from emergency actions to investigation and recovery, Law Enforcement may assume command.

The Bakersfield Police Department (BPD) is actively engaged in a variety of terrorism related fronts. The BPD established an intelligence office which also has responsibility for Homeland Security Liaison. This has allowed the BPD to develop an intelligence capability to detect and track activity related to domestic or international terrorism. Activities include, but are not limited to: fundraising, recruiting, surveillance, logistics, etc. The BPD intelligence officer is a member of the Law Enforcement Intelligence Unit (LEIU) and maintains a top secret clearance from the FBI and works closely with them. LEIU is an international intelligence organization which allows the sharing of intelligence and resources among its members. The Bakersfield Police Department has established working relationships with the California Anti-Terrorism Information center and several other San Joaquin Valley and Los Angeles area intelligence and TEWG units. BPD regularly receives intelligence and information from the State of California, Federal Government, Los Angeles County, and Los Angeles city as well as other agencies. The respective bomb squads of each agency (BPD/KCSO) are trained, equipped and certified by the FBI. The Bomb Squads regularly re-certify, and receive equipment courtesy of the FBI.

Bakersfield Area Hazardous Materials Teams

There are three (3) HAZMAT teams in the Bakersfield / Kern County area. These teams are sponsored by:

- Bakersfield Fire Department
- Kern County Fire Department
- Kern County Environmental Health Services Department

The two (2) Fire Department teams are specially trained in the use of PPE and are integrally involved in all stages of the response to a WMD event. Most importantly, these teams will perform:

- Agent identification.
- Adjustment of the perimeter and hot, warm and cold zones (as necessary).
- Victim recovery from the Hot Zone.
- Technical decontamination of first responders & supervision of the technical decontamination of non-ambulatory patients.
- Clean-up in conjunction with the EPA.

Because of the expertise of team members, the first qualified HAZMAT officer arriving on scene may assume the role of “Operations Section Chief” or other command position at the request of the IC. The Kern County Environmental Health Services Team is not trained for rescue or hazard mitigation but is able to perform scene entry, sample collection for hazard material characterization & identification of agent, and shall be an Environmental Health Services resource for an event.

Emergency Response Communications Centers / Dispatch

Communications Centers are associated with all city and county Law enforcement entities, Fire Departments, and private EMS agencies. As in all incidents, they are central to the communications process, relaying requests for assistance and dispatching the appropriate personnel and resources. However, in a WMD response, these communications centers may also be the sentinel system for recognizing and alerting response personnel to the possible presence of a chemical agent. Dispatchers may receive this information directly from witnesses, perpetrators or initial responders and may then pass this information on to the responders.

Kern County Department of Public Health (KCDPH)

The primary function of the Kern County Department of Public Health is the preservation and protection of the public's health through surveillance and control of communicable diseases or infections. It applies such population based methods as preventive measures and interventions; including isolation, quarantine, mass prophylaxis and environmental surety, during any major public health threat or emergency. The local Health Officer is delegated the responsibility to enforce public health laws and regulations under California Law under his/her jurisdiction and works closely with the California Department of Health Services to enforce state health codes. The Department of Public Health also is the lead agency in the county for bioterrorism planning, preparedness and response. This role includes educating health care providers, the media and the general public in bioterrorism preparedness and response.

The Kern County Office of Emergency Services (OES)

The Kern County OES is a branch of the Kern County Fire Department and its mission is "to implement emergency management principles and develop plans and procedures necessary to maintain a competent level of preparedness in reacting to disasters and major emergencies". The overall goal of the OES is to minimize the effects of disasters and major emergencies on the citizens of Kern County. The OES maintains an assertive program aimed at dramatically increasing the County's level of disaster preparedness and will play an integral part in the coordination and delivery of critical services during a mass casualty event.

Prior to the MMRS planning process, the entities listed above planned for emergency events/disasters and exercised these plans individually. The MMRS Planning process has brought together key individuals from each of these specialty areas to build upon existing relationships and establish contacts before an event occurs. This process has already proven beneficial as evidenced while planning for and carrying out the Smallpox Immunization Plan for emergency response personnel in Bakersfield and Kern County.

Several Operational Area (OA) exercises are scheduled to take place during FY 2003 – 2004 that will test the Bakersfield MMRS Plan as well as existing emergency response plans. These exercises will include but are not limited to the following:

- Point of Distribution / Medication Repackaging Exercise – 13 October, 2003
- Terrorism Response & Recovery Table-top Exercise – October, 2003
- California State-wide Medical & Health Disaster Exercise – 13 November, 2003
- OES Functional Exercise – March, 2004
- Full-scale WMD Exercise (Kern County) – Summer, 2004

The MMRS Planning process will also help to ensure that all emergency responders and Public Health personnel in Bakersfield and Kern County are properly trained and equipped to effectively respond to a WMD/Public Health threat or emergency. Specific details are contained in the Bakersfield MMRS Training Plan.

2. Emergency Response Equipment & Pharmaceutical Resources

Various emergency response and public health entities within the City of Bakersfield and Kern County have applied for and received monetary support from the State of California and the United States Federal government. These grant and contract funds have been or will be used to purchase equipment or facilitate training for use in a WMD event. What follows are spreadsheets that list all equipment that has been purchased / obtained through the MMRS contract, DOD / DOJ Grants, FEMA Grants, and State purchases. This equipment is in addition to what is currently used for daily operations by the Bakersfield Fire & Police Departments, Kern County Fire Department, Kern County Sheriff's Department, the Kern County EMS Department, the Kern County Department of Public Health, and health care facilities in Bakersfield and Kern County.

Bakersfield MMRS Contract (initial):

Item	Agency Purchased For	Cost	Ordered	Received
Telestaff Staffing Software Program	Bakersfield FD	\$65,000.00	X	
EMS / ER Medical Surveillance Program	Kern County EMS	\$40,000.00		
MMRS Pharmaceuticals (see pg. 9)	Bakersfield FD	\$100,000.00	X	X
ALS Equipment	Bakersfield FD	\$10,000.00	X	X
Mass Casualty Equip / Decon Trailer	Bakersfield FD	\$70,000		
PPE	Hospital ER's	\$30,000.00	X	
	TOTAL:	\$315,000.00		

Bakersfield MMRS Pharmaceutical Cache

<u>DRUG & STRENGTH</u>	<u>SIZE</u>	<u>BOX/PKG SIZE</u>	<u>QUANTITY</u>	<u>LOT NUMBER</u>	<u>EXPIRATION DATE</u>
Antidote Kit-Mark 1	30/box	80 boxes	2400	2T5419/2S4406 T5420/2S4406	6/07
Diazepam Auto-Inject 10 mg	15/box	70 boxes	1050 syringes	1D1479	10/05
Diazepam Syr. 5mg/ml Carpject	10/box	100 boxes	1000 syringes	937103B	4/1/04
Atropine MDV 0.4mg/ml	20ml vials	4x25's	100 vials	313279	10/04
Pralidoxime 1 gm vials	6/box	46 boxes	276 vials	3023130	12/06
Training Kit-Nerve Agent Injectors		1 box	25	2R9497/2S3498	NA
Syringes, oral dosing	10ml	1 case	500	127012	NA
Vibramycin Susp	60ml		175 16	0460K02A 0335K02A	6/05 5/05
Cipro 250mg/5ml	100ml		96	IT203WZ	8/04
Silver Sulfadiazine Cr	50 gram jar		494 jars 504 jars	22428 22538	7/05 12/05
Sterile Water Injection	10ml vials	16x25's (2 cases)	800 vials	01-170-DN	2/05
Levaquin 500mg tabs	50 tab bottle	24 bottles 40 bottles 60 bottles 4 bottles	1200 tabs 2000 tabs 3000 tabs 200 tabs	92PD42E 92PD644E 92PO749E 92PO750E	10/05 5/05 6/05 6/05
Doxycycline 100mg	50 tab bottle	864 bottles 48 bottles	43,200 tabs 2400 tabs	PO3A0030 PO3J0427	2/05 9/04
5/29/03					

3. Additional Federal Assets / Resources Needed for a WMD Event

In the event of a WMD event or a public health emergency occurring in City of Bakersfield, California or Kern County, local resources may be quickly overwhelmed. This would necessitate the implementation of the existing mutual aid system in order to provide a mass casualty / surge care response to a WMD event or public health emergency. Additional resource (personnel, equipment, pharmaceutical, etc.) requests would first be made to the Kern County Office of Emergency Services (Kern County Operational Area), then on to State OES Mutual Aid Region V, then on to the State of California's Office of Emergency Services.

If sufficient resources do not exist or are not readily available, then requests for additional resources shall be placed with the Federal Government. Resources that may be needed / requested may include but are not limited to the following:

U.S Public Health Service

- National Disaster Medical System (NDMS). This is a joint effort of a number of Federal agencies and represents a single system to assist State and local agencies in dealing with the medical and health effects of a disaster. The following resources (teams) may be requested to aid in the implementation of a local mass casualty / surge care response to a WMD event or a public health emergency.
 - Disaster Medical Assist Teams (DMATs)
 - National Medical Response Teams (NMRTs)
 - Disaster Mortuary Teams (DMORTs)
 - Veterinary Medical Assist Teams (VMATs)

Another valuable program that exists within the NDMS is for the Forward Movement of Patients. This program is coordinated through Federal Coordination Centers (FCCs) of which five are located in the State of California.

Centers for Disease Control and Prevention (CDC)

- Strategic National Stockpile (SNS) program. The mission of CDC's Strategic National Stockpile Program is to ensure the availability of life-saving pharmaceuticals, antidotes and other medical supplies and equipment necessary to counter the effects of nerve agents, biological pathogens and chemical agents. The SNS Program stands ready for immediate deployment to any U.S. location in the event of a terrorist attack using a biological, toxin or chemical agent directed against a civilian population.

CDC has organized the SNS into several packages. First, there are eight identical "Push Packages" which are pre-packaged in aircraft cargo containers to facilitate rapid deployment. CDC has strategically placed these Push Packages at distribution centers throughout the U.S. Each 12-Hour Push Package is comprised of pharmaceuticals, intravenous and airway supplies, emergency medications, bandages and dressings. These items are necessary to enhance state and local capacity to provide therapeutic treatment and prophylaxis of a population affected by a chemical or biological terrorism incident.

In addition to the 12-hour Push Packages, CDC will use vendor-managed inventory (VMI) to provide more tailored materiel to the scene within 24 and 36 hours after the

Federal decision to deploy. The CDC, through partnership with the Department of Veterans' Affairs, has contracted with vendors and manufacturers to stock these additional pharmaceuticals and supplies.

Federal Emergency Management Agency (FEMA)

- Urban Search & Rescue Teams (USAR). Twenty-eight (28) teams have been established throughout the United States to aid communities in need of experienced search & rescue professionals when disaster strikes. These USAR Teams are each comprised of sixty-four highly trained and experienced rescuers that are capable of performing Technical Search & Rescue Operations, including Breaching & Shoring of collapsed and damaged structures. Eight (8) of these teams are based in the State of California and may be available upon request from State OES to FEMA.

Environmental Protection Agency (EPA). Both local and national representatives of the EPA are likely to be requested in a WMD response. Specifically, EPA personnel may serve as on scene coordinators for agent identification/confirmation, as well as in environmental monitoring, decontamination, and long-term clean-up operations.

U.S. Department of Energy (DOE). The Department of Energy has primary responsibility for incidents involving nuclear or radiological materials and provides a number of assistance teams. Depending on the type of WMD event, DOE assets may be requested to assist in the response and clean-up effort.

Federal Bureau of Investigation (FBI). The FBI is the lead Federal agency in the crisis management of a terrorist incident and thus has “primary authority to prevent, preempt and terminate threats or acts of terrorism and to apprehend and prosecute the perpetrators”. Both the local and national offices are likely to be involved in a WMD terrorist incident and to convene a Joint Operations Center (JOC), which will include representatives of FEMA, EPA, local and State OESs, HAZMAT teams and other Federal agencies.

Department of Defense (DOD). Title XIV of Public Law (PL) 104-201, the “National Defense Authorization Act for fiscal year 1997”, specifically addresses defense against WMD. In Section 1413 (50 USC 2313), primary responsibility is assigned to the Department of Defense for incidents involving Chemical, Biological, or other related materials. Section 1414 (50 USC 2314) tasks the Secretary of Defense to develop and maintain at least one domestic terrorism rapid response team composed of members of the armed forces and employees of DOD. This team must be capable of aiding federal, state, and local officials in the detection, neutralization, dismantlement, and disposal of WMD containing chemical, biological, or related materials.

In addition, the Department of Defense has numerous other resources that may be requested in order to effectively deal with the consequences of a WMD event or a public health threat or emergency. Some of these resources that may be requested are:

- The U.S. Army National Guard Civil Support Teams (CST)
- The U.S. Army Soldier and Biological Chemical Command (SBCCOM)
- The U.S. Marine Corps Chemical Biological Incident Response Force (CBIRF)
- The U.S. Army Military Research Institute for Infectious Disease (USAMRIID)
- The U.S. Army Medical Command (MEDCOM)

4. Shortfalls identified in the Bakersfield MMRS planning process

- The lack of available pharmaceuticals necessary to treat large numbers of patients resulting from a WMD incident. Hospital pharmacies and first responders do not stock or cache large quantities of pharmaceuticals due to cost issues. The pharmaceuticals that have been identified and acquired in the Bakersfield MMRS Plan will give the entire Kern County area an increased response and treatment capability.
- A majority of area hospitals and health care facilities lack the ability to decontaminate large numbers of affected casualties that may self-refer to these facilities during a WMD incident. This has been identified in our planning process and all area hospitals and health care facilities have been encouraged to acquire the necessary equipment and PPE so that their staff will be able to effectively decontaminate up to 100 patients.

In addition, area emergency responders lacked the capability to decontaminate large numbers of casualties resulting from a WMD or Hazardous Materials event effectively and efficiently. A Mass Decontamination trailer and associated equipment has been identified and is being purchased by the Bakersfield Fire Department utilizing MMRS contract funds.

- The State of California and the Kern County Department of Public Health have been in the process of updating and re-writing their emergency response protocols / guidelines for responding to a pandemic outbreak or Biological event occurring within the state. Bakersfield MMRS sub-committees and their members have been included in many discussions and planning sessions to address deficiencies in the County's plans. These plan updates and re-writes are still in progress and the Bakersfield MMRS Plan will be included in Kern County's Terrorism and Disaster Plan(s).

- The Kern County EMS Department has implemented an Internet based system for tracking area hospital capabilities, ED availability, etc., and has proposed enhancing this system to include tools for notifying the KCDPH and the local healthcare system of persons presenting with atypical symptomology. These cases could then be investigated and tracked by the KCDPH to determine if a threat to the public health exists. MMRS contract funds may be utilized to expand / enhance the current system or to replace the existing system entirely. Kern County EMS and KCDPH staffs are evaluating several alternatives and a decision is expected before 1 January, 2004.

5. Five-Year MMRS Continuation Planning Template

The following spreadsheet reflects projected MMRS expenditures for Bakersfield, California. The City of Bakersfield's fiscal year runs from 1 June through 31 July. Year #1 on the spreadsheet represents projected MMRS expenditures in the 2003 / 2004 budget year.

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Cumulative Totals</u>
<u>Pharmaceuticals</u>	20,000	20,000	20,000	20,000	20,000	\$100,000.00
<u>Equipment</u>	50,000	50,000	30,000	30,000	30,000	\$190,000.00
<u>Training</u>	10,000	25,000	20,000	20,000	20,000	\$95,000.00
<u>Exercises</u>	20,000	25,000	20,000	20,000	20,000	\$105,000.00
<u>MMRS Maintenance</u> 1-FTE, meetings, etc.	100,000	160,000	110,000	110,000	110,000	\$590,000.00
<u>Yearly Totals</u>	\$200,000	\$280,000	\$200,000	\$200,000	\$200,000	\$1,080,000.00

Note: A more detailed list for sustainment is being compiled and will be included in the Bakersfield MMRS Contract Modification #3 – Statement of Work #2.

6. Statement of Operational Status

The Bakersfield MMRS has achieved operational status. Response equipment and pharmaceuticals purchased with MMRS contract funds have been received and are available if needed to respond to a WMD / Mass Casualty event. In addition, WMD training is taking place for first responders and hospital based personnel in the area and will continue throughout the year. This training is mandatory for all Bakersfield Fire and Police personnel and has been strongly recommended for all other emergency response, public health, and health care professionals in Kern County.

The Bakersfield MMRS Plan will be exercised numerous times over the next 12 to 24 months to determine its effectiveness and usefulness in the event of a WMD incident occurring in the City of Bakersfield and/or Kern County. The next scheduled exercise will be a State-wide event on 13 November, 2003. The results of this and all exercises shall be included in the monthly MMRS progress reports, as well as the final reports for the MMRS option period.

In addition, this plan will be tested / exercised on an annual basis as specified in the MMRS Plan document. The purpose of the exercises is to keep the MMRS Plan up-to-date, functional, and effective.