New Mexico Environment Department
Drinking Water Bureau

Counter Terrorism Implementation Plan

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Federal Mandates

The PUBLIC HEALTH SECURITY AND BIOTERRORISM PREPAREDNESS AND RESPONSE ACT OF 2002

This act sets out specific requirements for community water systems serving more than 3300 people. These requirements included creation of vulnerability assessments (VAs) and emergency response plans (ERPs) by set dates depending on system size. These plans needed to meet specific criteria outlined in the Act. The VAs had to be submitted to an EPA secure vault in Washington, DC with a "Certification of Completion of a VA" by the deadline. The ERP had to be created, but not submitted to EPA by the deadline. The "Certification of Completion of an ERP" had to be submitted to the vault by the deadline.

Under the Counter Terrorism Grant from EPA, DWB personnel created a program to make these larger water systems aware of these requirements, assist the systems in getting the necessary tools and training these water systems. This program included several different aspects. Since this was a brand new program, very different from other drinking water programs, DWB personnel had to research and self train themselves on a variety of security related issues. This included information gathering, browsing websites, and out of state and in-state formal training. Once this was completed, we were able to begin introducing ourselves to the larger water systems and making recommendations on how to proceed. The first thing we did was sending initial letters to community water systems serving >50,000 and 3,301 to 49,999 people. This letter introduced the systems to the "Bioterrorism Act" and its requirements, and made recommendations on how the different sized systems could comply with the requirements.

After completion of the VA research, the Drinking Water Bureau decided to recommend to all systems serving 3301 – 49,999 people that they use the ASSET software developed by the New England Water Works Association in conjunction with EPA. DWB personnel then contacted all the affected water systems and discussed the available options and learned which systems wanted to use the ASSET software. Based on this information, DWB purchased 50 copies of the ASSET software (shipping only) and distributed the CDs to all the interested water systems. DWB personnel developed a 2-day training that included VA training, ASSET software training

and a workshop where we helped the systems use the software to actually create VAs. This training was then delivered to the water systems and DWB personnel, by Kevin Cook and Jerry Lewis, in four different training workshops: Roswell, Anthony, Albuquerque and Farmington.

The final phase of required work under the Bioterrorism Act was to assist, train and work with CWSs serving>3300 people to complete the ERP. DWB developed recommendations and materials to assist water systems in creating emergency response plans (ERPs) and sent this to all of these CWSs. We also developed a 1-day training on creating emergency response plans using EPA's "Emergency Response Plan Guidance for Small and Medium Community Water Systems". Finally, DWB personnel delivered this training to water systems and DWB personnel in 4, 1-day workshops: Roswell, Anthony, Albuquerque and Farmington.

Most of NM's community systems over 3300 complied with both the VA and ERP requirements by the established deadlines. Those that did not, completed their requirements soon thereafter. There were some problems with getting systems that either, were not required to comply or sent the required documents to EPA (but EPA misplaced or lost the documents). These glitches were eventually worked out and I believe that NM was the first state in Region 6 to get full compliance with the VA and ERP requirements.

Grant commitments under the ongoing grant, no longer include any requirements. The present grant commitments are now generally geared towards: 1) getting larger systems to upgrade the water system's security hardware and security related programs and policies and improve their ability to respond to an emergency, and 2) assist all other smaller community water systems to create VAs and ERPs, upgrade security and learn how to respond in an emergency. The following plan will address programs that have already begun, programs that have not begun, but need to soon (already in the planning stage) and some future programs. These proposed programs are designed to cover our grant commitments and then some.

The plan will be divided into 4 phases. However, a phase does not have to be fully completed by the time a work activity in a following phase begins.

Phase 1, Programs that have already begun or that are on-going

1. NMED/DWBs Emergency Response Plan

This comprehensive action plan covering all drinking water emergencies has been created and approved as an official DWB document. It is designed to assist NMED security personnel and oversight staff to work directly with and help the water system respond effectively to an attack or emergency. It is also designed to assist the DWB with working with other state and federal agencies in the case of a terrorist attack or major water system emergency. All DWB District Security Coordinators and oversight staff have this document and have been trained on its use as

well as on “Site Characterization”, tabletop exercises, and the “Emergency Communication Protocol”. This document is a living document and will be changed and updated as time goes by. With Ben Arguijo’s assistance, this document is now stable and can be sent/e-mailed to community water systems, our state and federal emergency response partners and other interested entities. Any day now, the initial mail out will take place to community water systems serving >3300 people, our response partners and other interested parties. If some of these systems feel that they need to be trained on this ERP, this training will be conducted by the District Security Coordinator in the 4 DWB Districts on an as-need basis. However, it is envisioned, that since many of these systems have already had ERP training, have created their own ERPs and have received follow-up phone call training, that they will not need training. When this official document is sent out, there will be an introductory letter that should make clear how to use this document.

There is still a chapter, Chapter 3, “Cyber Security” that is not developed yet. This will be developed by one or two of the District Security Coordinators, who need to be trained in cyber security. Volunteers will be solicited (or appointed) to become familiar with water system cyber security issues. It may be necessary to send 1 or 2 of our security coordinators to in-state or out-of-state formal training, if they cannot find training on the internet.

2. Emergency Response Test Kits

One Hundred and forty-nine emergency test kits were purchased under a grant from the NM Department of Health (NMDOH) and the Centers for Disease Control (CDC). The kits test for airborne and waterborne radiation (for site screening), cyanide, pH, conductivity and chlorine residuals. These parameters are excellent indicators of potential contamination and the kits give us a statewide ability to begin to respond to a potential contamination event. These kits are being distributed throughout the state to deserving, willing and competent water systems. The District I and III distribution lists are on Magneto and they show that Las Cruces has 2 more kits to give out and Albuquerque has 3 more to give out. Santa Fe’s kit distribution is believed to be almost complete, but the status of District IV is unknown. The District Security Coordinators for Districts II and IV need to post this information on Magneto.

When the test kit distribution is complete, (which needs to be within the next couple of months), a list will be created of all the water systems statewide that have a kit. The list will include: PWS #, water system name, phone number and e-mail address of the water system contact and location, (county and district). The water systems that have a kit have agreed to maintain the kits properly, replace reagents, buffer solutions, batteries when needed, and to share the kits with nearby water systems in an emergency. Finally, the final list will be sent to all community (and possibly NTNC) water systems in NM. This will allow all community water systems to identify the nearest emergency test kit, and make contact and prior arrangements with that system for use of the kit. All NMED District and field offices also have at least one available test kit.

Eventually, DWB wants to make a list of locations of radiation meters (included in the test kits). The 149 radiation meters scattered around the state could be a real asset in responding to a nuclear incident (terrorist or accidental). This list will then be offered statewide to law enforcement and emergency response agencies in case there is ever a dirty bomb or other nuclear incident in NM. Law enforcement and emergency responders will be able to locate these meters

and hopefully use them. Of course, there will have to be protocols and stipulations that the meters be returned to their owners in working order.

3. Training of NMED/DWB Security personnel and oversight staff

The initial training of security and oversight staff on the NMED/DWB Emergency Response Plan, the Emergency Communication Protocol, Site Characterization and Tabletop Exercises (TTXXs) is complete. This was the critical training. At some point (no urgency), Jerry Lewis may give a power point presentation on the creation of vulnerability assessments (VAs) and emergency response plans (ERPs) to the other 3 District Security Coordinators so they will have some background understanding of water system security. There is no rush for this, because, DWB is no longer involved with helping systems develop these plans.

Recently, all of the District Security Coordinators attended the 3-day NM Homeland Security Conference in Albuquerque. This gave us a good introduction to a broad range of security issues. District Security Coordinators will be encouraged to browse EPA's water security website and read documents and power point presentations that have been placed on Magneto under the Counter Terrorism Program. This self training can be done over time. It is also envisioned that we will use Counter Terrorism Grant Funds to obtain specific training such as: Cyber Security, Mutual Aid Agreements, WMD, etc. If someone gets specific training like this, they will be expected to share this information, in a training format to the other security coordinators. The Cyber Security Training is an immediate need, but the other training can be accomplished over time. There is also FEMA ICS (Incident Command System) training that is free on the internet. We may also get this training in NM soon.

4. On-going inter agency training

In the past, DWB security personnel have put on trainings to various other emergency response organizations including ATAC (Anti Terrorism Advisory Council), associated with the U. S. Attorneys Office (twice) and PHEPRAC. (Don't ask me what this stands for, but it is associated with the NM Department of Health). The 2007 NM Homeland Security Conference is looking at including water utility security content in this year's conference. No details yet. I'm sure that other opportunities (ask Chuck T.) will also arise.

5. Semi-annual grant reporting to EPA

The semi-annual report is due to EPA by January 31st and July 31st. In very early Jan. and July, the District Security Coordinators must gather all the security "beans" and "work accomplished" during the preceding 6 months (per the grant commitments) and get that information to Jerry Lewis. This information will be put into the report using the existing template and will be forwarded to Judy Kahl or Darren Padilla for approval and submission to EPA Region 6 by the deadline.

6. Ongoing research of security issues

Someone needs to be appointed the liaison between EPA, ASDWA, Water ISAC (Information Sharing and Analysis Center) and NMED. This person's responsibility will be to keep abreast of

water security research, developments, new programs, recommendations, etc, and provide this information to the whole security group. Until now, I have done this of my own volition and I recommend that this responsibility continue to be mine. ASDWA and EPA communicate with me now as well as with the Bureau Chief. NMED DWB currently has a subscription to the Water ISAC. Currently, I have the capability to access the Water ISAC's secure website and I go here at least weekly to keep up on new and recent security developments. ASDWA has a program that I participate in that involves getting feedback from state security personnel so ASDWA can make program development recommendations to EPA. All of these requests, surveys and questionnaires are posted on the Water ISAC's secure website. Also, I believe that if one or more (up to two) of the other DWB Security Coordinators wants to subscribe to the Water ISAC, they should be allowed to. Extra subscriptions cost $250.00 each rather than $500.00.

Phase 2, Programs that have not begun, but need to soon

1. Organization of the District Security Coordinators, mapping of activities

The District Security Coordinators need to be organized into a team that will map out the direction of water system security in NM and implement water system security improvement in NM. Jerry Lewis will coordinate this effort by organizing regular/random meetings and or phone conferences to discuss pertinent issues. We will try to identify what areas the four of us are interested in and make tentative work assignments based on this. For example: Ben Arguijo has expressed an interest in learning about cyber security. Each of the four District Security Coordinators will be responsible for billing 25% of his/her time to Counter Terrorism (CT), so we will each need to have enough work, but not too much, so we can bill the 25% of our time to this. The proposed assignments will then be given to the District Supervisors for their input/approval. The idea here is that we will be doing outreach work within our districts, but also development of statewide initiatives, protocols, etc. This document has already discussed some on-going work that needs to be completed/continued. The rest of this document will talk about other programs/initiatives that need to be organized and executed.

As work is completed, our group will need to meet periodically to discuss what we want to do and how to accomplish it. We will need to continually add work assignment as things get addressed and completed. Since there are no more requirements that need to be met (other than the semi-annual reporting), there are no deadlines, but it is necessary to be able to continue to help water systems learn about security, upgrade their own security, respond effectively to incidents, etc. If we can continue to have enough specific work to bill 25% of out time to CT, I believe that we can do this and meet all of our grant commitments. In the past, the District Security Coordinators have not been able to bill much of their time to CT because they did not have specific work tasks. Since there are no deadlines and requirements that need to be met, there should be no need for any of us to exceed billing 25% of our time to CT on an annual basis. This should also allow Jerry Lewis to limit his billing to 25%. It is also important that we have enough work so we don't wind up billing time to CT that wasn't really worked in CT.

2. Population of NMED/DWB's website, Security Section

The NMED/DWB website has a security section, but this has never been given much attention. We have developed a lot of initiatives in NM along with documents that should be put on the website for public water systems and others to read. An introductory NM water system security document needs to be prepared for this website. It should contain information about how NM's security program is set up, contact information for the security team members and outreach activities that the security team is implementing and considering. Additionally, it should describe what has been done in NM (similar to what is on the first 2 pages of this document). One of the Security Coordinators will be given the job of creating documents for this website and populating this website, keeping it current and updating it when necessary.

3. Coordination of a program for sanitary surveys to address security issues

One of our grant commitments is to use sanitary surveys as a tool to improve water system security and water system's ability to respond to a terrorist attack or other emergency. A security coordinator will coordinate this effort. The idea is to create/compile a selection of security related language blurbs that oversight staff can use to put security related information into sanitary surveys. Because security and emergency response is an ever-evolving and changing program, there is a continuing need to get new/updated/changed information to NM water systems. This is an easy and effective way to get this information out to systems. The information that systems need also varies based on the size of the system, type of system (C, NTNC, TNC, rural or non-rural). Other variables include volunteer vs paid employees, 1 employee vs many, proximity to other community systems, possibly the county the system is in, etc.

There hopefully will be a compendium that includes written blurbs (standard language) that address these various scenarios and ones I haven't thought of yet. Once created and maintained, this will be sent to all oversight staff so they can pick and choose from the possibilities. Also, oversight will be encouraged to create their own sanitary survey blurbs depending on the specific water system. The blurbs will be reviewed by the security coordinator prior to implementation. Whoever will be responsible for this, will need to keep the blurbs current, applicable and updated and forward the updated compendium to oversight staff and supervisors routinely.

I have begun sending a copy of the new NMED/DWB Emergency Response Plan with every sanitary survey I send out.

4. Security and emergency response outreach to small and other CWSs

This is the largest and most important aspect of our grant commitments. It will be on-going and does not need to be completed soon, but it does need to begin soon. I feel that this has been neglected and that NM is probably behind the curve in this area. EPA has created a document "Guidance for small systems (<3301) Recommendations for Simplified Vulnerability Assessments and Emergency Response Plans" to help small water systems begin to address security and emergency response. I also created a companion document to this document that I believe will help and encourage small systems to use the EPA document. This document also includes a section on recommendations suited for small and rural NM water systems (based on

my experience). I have envisioned that these documents will be the centerpieces of this effort. Mailing (or e-mail) will be the vehicle for getting this document out to all community water systems, but this can be done in stages (ie: systems serving 1,000 – 3,300 first, 500 – 999 second, 100 – 499 third and 25 to 99 last). This mailing could be spread out over month/years. A copy of these documents should be put on the website. The DWB document has not been approved by a supervisor or the security team yet. It is envisioned that the mailings and any training would be done within each district by the security coordinator with assistance from oversight staff.

These documents include information on vulnerability assessments, emergency response plans, how NMED recommends that smaller systems complete these tasks and available tools that water systems can use. Also included are easy and inexpensive ways to upgrade security, simple security solutions and other information. Obviously, all small community water systems are not going to immediately embrace these recommendations (or even read the documents). However, I am hopeful that this outreach effort will be an icebreaker and will begin to get small systems interested in security. Follow-up e-mails and phone calls to the original mail-out can also be done.

Outreach to smaller systems probably cannot be accomplished solely by mail-outs, and some kind of training program needs to be developed. (Training workshops have their limitations too, since water systems have to decide to attend and pay travel expense, etc. Many systems will not attend). Since the smaller systems are being advised to use simple VA and ERP tools (NMRWA and RCAC), training on these topics is not envisioned. Training along the lines of the Emergency Response Training that Jerry Lewis delivered in the 4 districts is proposed. This can be supplemented with information from the EPA guidance and DWB documents already mentioned. Another key is to give water systems resources (websites, NMED/DWB website, etc) where they can find pertinent information. My thought is that this training should begin with systems serving 1,000 - 3300 and systems that have been given emergency response test kits. Once this is accomplished, we can start with the next tier of water systems and work our way down to the smallest systems. Again, this can be spread out over a period of time.

Other outreach possibilities include security/emergency response training at the NMRWA Annual Conferences, statewide Rural Water Workshops, involving NMRWA and RCAC in delivering DWB's emergency response training, the short schools, DWAG meetings, etc. Almost 2 years ago, DWB hosted a drinking water related "Weapons of Mass Destruction" 2-day course in Albuquerque taught by TEEX and the NEERTC/ODP. This training was completely free and was contingent only on getting a hall and a certain number of attendees. This opportunity may still be available. These training workshops must be undertaken by all of the security coordinators equally.

The NM Rural Water Association (Michael Alvidrez) has approached me about small water system security and emergency response training. He is required to deliver 5 training workshops in NM in 2007, so we discussed the possibility of putting on trainings similar to the emergency response training I put on to DWB staff. Tentatively, we have scheduled a workshop for April 29, 2007, in which I will deliver the training. Then, Michael will use our training template and power point presentations and put on the other 4 workshops in different areas of the state. If this works, I hope we can continue this training collaboration into the future with different security topics. I would also like to get RCAC involved in security training.

Finally, there is the continuing need to gather security related information from systems serving >3300 and to pass on information, security updates, etc. Jerry Lewis has begun doing this, with 45-60 minute phone calls to the larger water systems. He began by calling the larger systems first and progressing through the smaller systems, statewide. He created a phone call template of questions, concerns, information and updates to follow during the calls. The highlights of the template are: Questions concerning updates to the vulnerability assessments and ERPs, particularly, how these documents are stored and how often the ERP is updated. A very valuable subject to discuss is if the system has made any security upgrades to their security since creating the VA and what they were. This particularly makes a system feel good when they get to tell us what they have done, thought of and upgraded. DWB can also pass on valuable recommendations regarding security upgrades. This includes recommendations for the installation of storage tank access hatch entrance alarms when there is a SCADA or telemetry system, updates on camera software, neighborhood security watch programs, etc. There should be a discussion of practicing ERPs and TTXXs and NMED/DWB's new emergency response plan and emergency communication protocol. Finally, it is valuable to talk about water system attacks and incidents that have occurred in NM over the last 3-4 years. Many of even the larger water systems do not believe that they could be subject to domestic or international terrorism. Going over the list of water system incidents over the last 3 – 4 years can be very enlightening.

These phone calls have gone over extremely well, and the water systems seem to be quite thankful for the information and that we called. It is envisioned that this will be continued by each District Security Coordinator in his/her district. It is unknown whether this could be a valuable exercise for systems serving <3301 (possibly not).

5. Tabletop Exercises (TTXXs)

This is one of our grant commitments. Up until now NMED/DWB has advised water systems of the strong recommendation to practice their emergency response plans using orientation trainings, tabletop exercises and drills. The DWB has also given a standing offer of assistance to help water systems design and execute tabletop exercises. The larger water systems have also been given instructions on how to obtain EPA's TTXX CD that contains designs for 12 different exercises. Unfortunately, these efforts have had little success, so NMED DWB has come up with a different approach. The Albuquerque office has created a complete tabletop exercise, based on a FEMA template for a potential water contamination incident. This TTXX is designed to use NMED/DWB's new Emergency Response Plan and primarily involves water system and DWB personnel. Since the exercise design has already been completed, this is a large step that the water systems do not have to do. I have sent a copy to Robert Gallegos with the City of Santa Fe to see if there is interest in conducting this exercise. If the City of Santa Fe (or some other larger water system) is interested, it might work something like the following.

The city would follow the design and organize and set up the exercise. The primary participants will be water system staff, the DWB District Security Coordinator, and the DWB oversight person. However, this exercise is not designed only for the water system and NMED personnel. TTXXs are teaching tools and we would have all 4 NMED District Security Team members and possibly oversight staff as participants, evaluators or observers. Representatives from other large water systems in District II would also be invited to participate or watch. This exercise should then act as both a training tool and a motivational tool. We will/should be able to give DWB

security personnel hands on TTXX experience to take back to their districts as well as show other water systems how TTXXs work and hopefully motivate them to execute their own.

It is envisioned that this methodology will have a cascading effect, and be an effective way of getting more and smaller systems interested in doing TTXXs. One thing I learned as I taught the TTXX training in the 4 districts was that it is far easier to familiarize people with TTXXs by having them participate in one rather than teaching them in a classroom. By far the most common comment I got was "Your training was good but I need to see this work - when can we do one"?

This effort would be on-going and long term, starting with larger systems and moving toward smaller systems as time goes by. These types of exercises are time consuming, so it may not be possible to do a lot, but hopefully this effort will be self-generating and water systems will want to do TTXXs with or without NMED. Each District Security Coordinator will be responsible for finding a willing water system in their district to start the process. How many should be completed will have to be worked out.

Phase 3, Future Programs

1. Creation of districtwide e-mail address lists of all community water systems.

The DWB has a need to be able to contact water systems immediately in the event of certain eventualities. These include: raising/lowering of the national threat level, risk of threat in certain areas/water sector, notification of systems of terrorist attacks, incidents within NM or a particular region, routine informational trainings (training opportunities, outreach, interest stories, etc). It is envisioned that each district would create its own e-mail list for their community water systems and be responsible for the maintenance of it. Once completed, each security coordinator would have a statewide list. District I has completed this list, but it is not yet functional in e-mail.

2. Law Enforcement Awareness Training

Along with our efforts to improve communications and emergency response within NMED/DWB and water systems, it is also important for law enforcement to improve their awareness of water systems. Water system awareness includes re-prioritizing response actions appropriate for a very common critical infrastructure. The idea of training NM law enforcement has been run by Jeff Phillips of the Department of Public Safety (DPS) and he was excited about this possibility. In fact, he said that, the NM Emergency Operations Center (NMEOC), would be willing to deliver this training to law enforcement statewide if NMED/DWB created a power point presentation. The presentation has been created and is now approved for use. A little more coordination may be needed with the Department of Public Safety, but this program is basically ready to be launched.

3. Water System Protection of Evidence Training

This is another area that needs to be addressed along with law enforcement training. Law enforcement cannot respond effectively to a water system attack if there is no evidence to process. The DWB Albuquerque office has completed a power point presentation on "Protection of Evidence". The idea here is that, the training (power point presentation) will be given to community water systems to deliver to their personnel whenever needed. This training should begin with the larger systems and systems that have been given an emergency response test kit. If the security team feels that this training would be valuable for smaller systems (1,000-3300, 500-999, 100- 499, 25-99), this program can be expanded.

An important note is that law enforcement always expects a pristine and undisturbed crime scene. However, since water systems are mandated by law to continually provide safe drinking water, they will normally respond immediately. This means that water system personnel will probably be on-scene first and will unavoidably destroy some evidence while investigating the incident. This training will hopefully help the water system protect as much evidence as possible. Law enforcement will also be made aware of this in their training.

I just delivered an abbreviated version of this presentation during my security workshop at the recent NMRWA Annual Conference. The "Law Enforcement Water System Awareness Training" and the "Preservation of Evidence" training should begin concurrently.

4. Development of a protocol to track incident recordkeeping and reporting

The NMED/DWB security team needs to develop a tracking and archival system for this. One of the security team members will probably be made responsible for this and the reports will be kept in one of the District Offices. We definitely need a more streamlined process for getting incident reports, police reports, etc. from oversight staff and District Security Coordinators and getting this information into an organized statewide record keeping system. It is also important that all incidents be reported to EPA Region 6 and the WATER ISAC.

5. Mutual Aid Agreements between water systems

This program is being pushed hard by EPA, because it is a very effective tool for getting needed emergency assistance to a water system quickly. It is also very cost effective, although there can be costs depending on the terms of the agreements. (This program may need to be given a higher priority). NMED/DWB feels that this program probably will not pick up much speed in NM until DWB gets involved.

Recently, I was contacted by a representative of AWWA, which is putting on regional Mutual Aid Agreement training workshops. They will be hosting one in Denver, Colorado in July of 2007. About fifteen representatives of five states (Montana, Wyoming, Colorado, Idaho and New Mexico) will be invited. Ten of the representatives will be from water and wastewater systems and the others will represent: WEF, state AWWA representative, state Rural Water Association, state drinking water primacy agency and the state emergency manager. The 1-day workshop will consist of training in the morning, and in the afternoon, the state representatives will come up with a mutual aid agreement template that should work in their state. Once the template is finalized, water and wastewater systems will be able to use it to create mutual aid agreements amongst themselves.

The DWB Security Team will meet and study the prepared template and come up with a plan for getting the template and training out to the water systems. NMED/DWB may need to work with systems to get them to develop these agreements.

AWWA will cover all travel expenses for attendance at this workshop for all invited personnel. Also, I sent an e-mail out to water systems serving >3300 people about this opportunity and found 10 water systems that are interested in attending. I sent this list to the AWWA.

Phase 4, Future, Future Programs

1. Enhanced Emergency Test Kits and an Emergency Testing Fund

A part of NMED/DWB's Emergency Response Program, has always been to obtain a capability to quickly screen drinking water for expanded parameters, such as: WMD, industrial chemicals, pathogens, bio-toxins, nerve agents, etc. The DWB envisions that this will start with the purchase of enhanced, emergency test kits, once this technology meets our needs and is available. Both Sandia and Los Alamos National Labs (forget the bees) are working on prototype test kits. Sandia may soon have 2 or 3 test kits that cover all of the applicable chemical, bio-chemical and biological parameters that need to be screened for. These kits do not need to meet EPA standard laboratory requirements since they will be for screening only. In a potential contamination incident, we are only looking for heavy doses of contamination that can cause an acute situation and immediate health risk. There will probably never be a long term non-acute risk because any contaminant should get flushed out of the system.

Ideally, NMED/DWB will purchase at least 2 sets of these kits (2-3) and have one set in the Albuquerque Office and one set in southern NM (Ruidoso, Las Cruces, Clovis). In the event of a potential contamination event, the kit (with an operator) may be able to get anywhere in the state within 4 hours (depending on the availability of trained personnel and a vehicle). If it takes longer, this is OK, because the system can issue an immediate "Do Not Drink/Use" order, and take other actions until the kit arrives. One of the reasons (other than technology not at the level we need) we chose to purchase the 149 basic emergency test kits was the instability of the reagents required for existing enhanced test kits. Some chemical reagents and living organisms have to be replaced often and regularly. Besides the hassle, this can be an expensive on-going cost. Sandia has advised the DWB that its reagents should be stable. This will be one of the main considerations when buying these kits (if we can get funding). The kits will also have to be approved by EPA for emergency testing purposes. To pay for these kits NMED/DWB envisions looking for grants and petitioning the NM legislature.

Another possibility towards assisting water systems in being able to collect emergency samples is for the NM legislature to create an emergency testing fund. The minimum of EPA recommended sampling during a potential contamination incident includes: SOCs (carbamates, SOCs and diquat, VOCs, expanded heavy metals including cobalt, lead and copper, a complete secondary and possibly gamma emitting radionuclides. During an emergency, it is important to get sources, storage tanks, etc. back on line as quickly as possible. To achieve this, priority 1

and 2 sample analysis can be used, but priority 1 samples cost three times the normal cost and priority 2 samples cost twice the normal cost. If pathogens have to be tested for, the cost of laboratory sampling during a potential contamination incident could easily exceed $20,000.00 per event. Currently, this cost will fall on the water system. If NMED/DWB has the enhanced emergency test kits, this cost goes way down. Based on evidence found during "Site Characterization", the basic emergency testing and the enhanced testing, most contaminants can probably be eliminated from consideration. Then, only contaminants that might be indicated from the "Site Characterization", basic and enhanced emergency sampling need to be sampled at a standard lab at priority 1 or 2.

Of these 2 possibilities, DWB heavily leans toward the enhanced emergency test kits, but I think these two ideas would work well together and could maybe be funded together. With the enhanced test kits, the size of the emergency sampling fund would not need to be large, in fact it might not be needed at all. Without the enhanced test kits, it would need to be very large, because all of the EPA recommended contaminants would have to be tested for using priority 1 or 2. It is also possible that EPA has expanded the list of contaminants and laboratory methods that need to be tested. The emergency testing fund would have to be created by the NM legislature.

Note: It may seem that this is an extremely ambitious agenda for an under-staffed and overworked Bureau, but that is the nature of this grant. Even though the grant itself is not that large, what it encompasses is very large. Believe it or not, there are recommendations from EPA that we have not even begun to address like bird flu pandemic and pandemic flu planning, The 14 Features of an Active and Effective Security Program, training on the WCIT (Water Contaminant Information Tool), and other programs.

On the other hand, the proposals in this implementation plan are meant to allow DWB Security staff to bill 25% of their time to legitimate security related programs. They are not meant to burden security and oversight staff beyond this. If programs are not fully implemented or completed, with security staff billing 25% of their time to security, then so be it. We can only do the best we can with what we have to work with.

However, I believe that if all four of us work on these programs and bill accordingly and consistently, a lot of this work can be completed effectively. If we do this, I also believe that our outreach and training to small water systems will create a dramatic improvement in water system security awareness, water system ability to deter and detect system intrusions and water system's ability to respond to an emergency. This week by week approach to drinking water security has worked well for the last 3 years and EPA seems satisfied with the work we have reported in our semi-annual and quarterly reports.