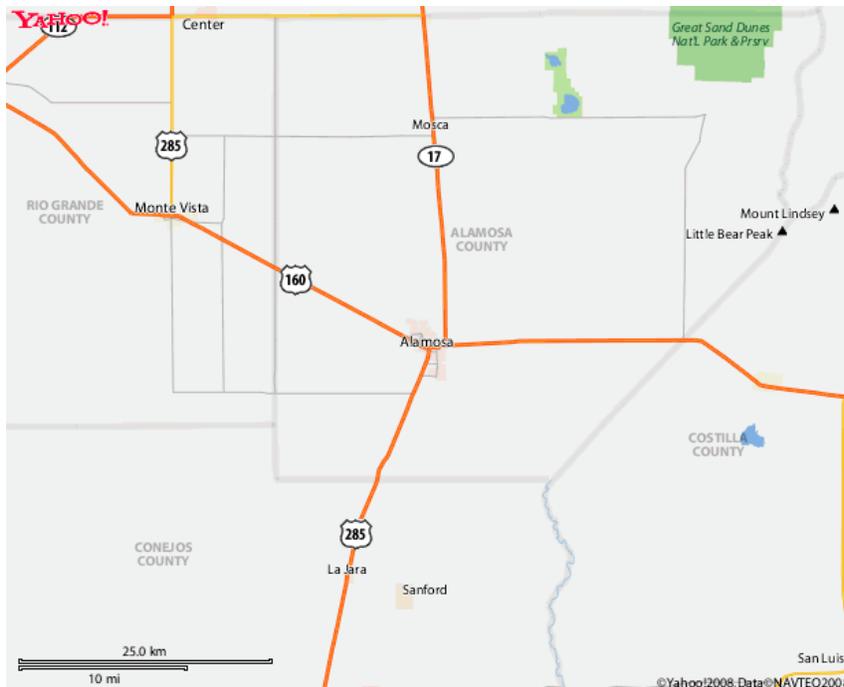


# After Action Report

**NAME/DATE OF INCIDENT:** City of Alamosa Salmonella outbreak, March – April 2008



**SITUATION:** In early March, several residents of the City of Alamosa (Alamosa County) became unusually sick, which drew the attention of the local nursing service. Upon further investigation it was determined that residents were infected with salmonella<sup>1</sup> and the source was linked to the Alamosa Water District system. No common food source was identified, the majority of those who were ill either lived or worked within the Alamosa city limits, and several sick infants were only on formula mixed with tap water. Preliminary lab results found the salmonella strain in both humans and water samples. Tests of the non-chlorinated artesian well, which feeds the district, were not contaminated; however, the distribution system was positive.

Three theories evolved as to the source: (1) cross contamination in the system; (2) a crack in the line allowing contamination to enter during low pressure; and (3) contamination of the water storage site. It was later determined that East Alamosa water was not contaminated.

The DEM Duty Officer was notified at approximately 1:00pm MST by the DEM Regional Field Manager on Saturday, March 15 of the Salmonella event. The DEM Regional Field Manager was contacted by Alamosa County Emergency Manager at approximately 12:00pm MST. The DEM Regional Field Manager provided initial informational situation report to the Duty Officer on March 16 (approximately 6:30pm MST) as well as e-mail and phone informational updates

<sup>1</sup> Salmonellosis is a type of food poisoning caused by the salmonella bacterium. There are many different kinds of these bacteria; /Salmonella typhimurium/ and /Salmonella enteritidis/ are the most common types in the United States. Symptoms of salmonellosis include diarrhea, fever, and abdominal cramps. They develop 12 to 72 hours after infection, and the illness usually lasts 4 to 7 days. Most people recover without treatment. However, diarrhea and dehydration may be so severe that it is necessary to go to the hospital. Older adults, infants, and those with impaired immune systems are at highest risk.

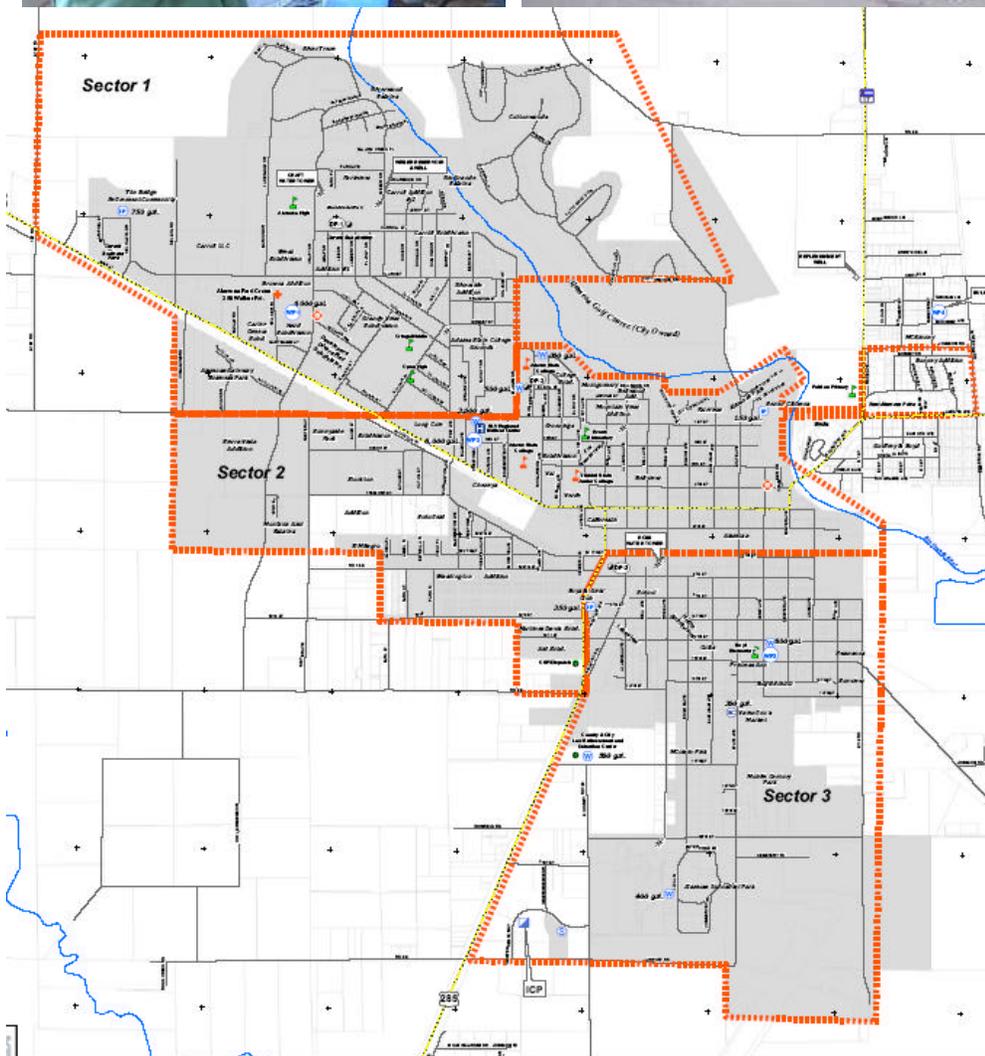
from March 15, 2008 through March 19, 2008. An additional updated informational situation was sent to DEM Duty Officer on March 18, 2008 at approximately 3:30pm MST.

The Colorado Department of Public Health and Environment (CDPHE) Disease Control and Environmental Epidemiology Division (DCEED) was actively involved in providing assistance with disease investigation and interviews early in the outbreak. As the event unfolded, and water was determined to be the source of contamination, other CDPHE divisions, such as the Water Quality Control Division (WQCD), the Consumer Protection Division, and the Emergency Preparedness and Response Division (EPRD) were ramped up to provide technical assistance to the local nursing service as Alamosa County does not house its own environmental health agency. Other State agencies were also called upon to respond, therefore, the State Emergency Operations Center (SEOC) was activated. From this point on, the major effort was: (1) determine the source of the contamination; (2) inform the public of the on-going situation; (3) establish a logistical system for the distribution of clean water to those who could pick up the water and to those who were either home-bound or institutionalized; and (4) remove the contamination from the system.



City officials, the CDPHE Water Quality Control Division (WQCD), and Denver Water developed a plan for the flushing of the entire water system. As seen on the map below, the City was divided into three sectors and the flushing would move from north (sector 1) to south (sector 3). CDPHE issued a bottled water order to the City of Alamosa of the afternoon of March 19. The City of Alamosa and the County of Alamosa signed an emergency declaration on the evening of March 19. On March 20, two bulk water distribution points were operational for three hours each distributing a cumulative total of 6-8,000 gallons. Additional points were opened on March 21. Short-term needs were being met. An initial needs assessment was conducted by the local jurisdiction and determined an estimated need of 40,000 gallons of water per day once the water system flushing began. Flushing was expected to commence once: (1) the appropriate equipment was in place; (2) sufficient bulk/bottled water was in place during the

flushing; and (3) a public information plan was established to notify the residents of the flushing and the associated actions to be taken. Animals were susceptible as well but not to the same degree as humans.



Western portion of the City of Alamosa

On March 25, the super-chlorination of the water system began. Volunteers distributed flyers to all residents informing them of this action. For the next 18 days, the system was flushed and

tested. On April 11, all restrictions were lifted and residents were informed the water was safe to drink.



A three stage process was developed by the City to inform the public of actions to be taken or not taken during the water system flushing. Information related to this color-coded system was hand delivered to the residents during each stage. Definitions of each stage were:

**STAGE 1 – Red:** High concentration of chlorine - 25 parts per million (ppm); Can not use water for anything other than flushing toilets; Possible skin, eye, or other irritation from water exposure. City officials will notify each neighborhood before the process begins. In Stage 1, citizens may experience skin, eye, or other irritation from exposure to the highly concentrated chlorinated water. If signs of irritation occur, immediately rinse irritated areas with bottled water. If the irritation continues or spreads, contact your health care provider for follow up care. At the end of Stage 1, residents will be notified as the concentration of chlorine decreases to Stage 2 levels and additional uses of the water become possible.

**STAGE 2 – Yellow:** Chlorine decreases to 10 ppm (slightly above swimming pool); Water can be used to bathe and wash laundry; Can not consume water. This is 2 to 3 times greater than the maximum level acceptable for drinking water. At this time, residents should run their bathtub faucet - 5 minutes on hot, then 5 minutes on cold, or until they smell chlorine. Some people may experience skin, eye or nose irritation from chlorine at this level, but may bathe with caution. Tap water should not be consumed or used to brush teeth. This stage is expected to last up to 10 days, but may last longer depending on results of the flush.

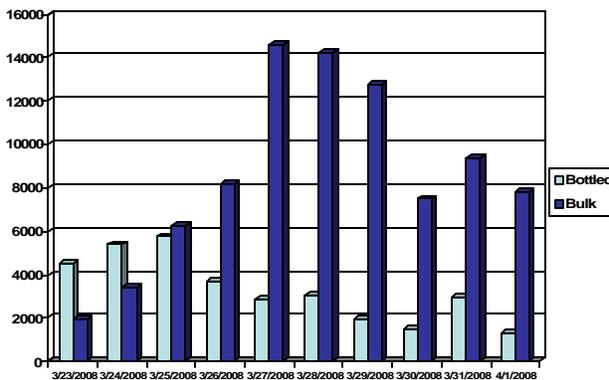
**STAGE 3 – Green:** Chlorine decreases to 1-2mg per liter; Normal drinking, bathing, and other water uses can be resumed. At this time, residents should run all taps in their homes for at least two minutes to charge their system with drinkable, chlorinated water.

The critical response function during this incident was the distribution of donated water. Multiple commercial entities donated water (along with other products /services) to the City throughout the incident. They included: A 1 Discount Water, Advantage Water, Albertson's Grocery, All American Moving, Anheuser-Busch/Coors, Arrowhead subsidiary, Bulk Water Runner, Center for Disability, City Market/King Soopers, Clorox, Colorado Pure, Coors, Costco/Nestle, Deep Rock, El Dorado Water, Germ-X, HealthOne, Highland Water, Huggies (Kimberley-Clark), Indian Springs, Jack's Market, Johnson & Johnson, LDS Church, Lysol, Memorial Hospital (Colorado Springs), Mile Hi Culligan Water, Mile Hi Water, My Medical

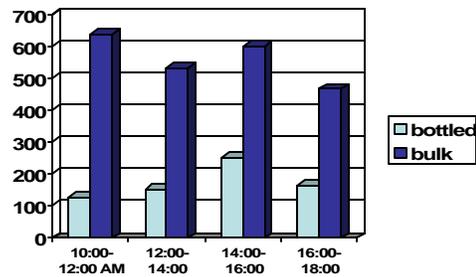
Solutions, Nestle/Costco, Pampers, Pepsi, Playtex, Pure Water To Go, Purell, Rocky Mountain Bottled Water, Safetec of America, Inc, Safeway, Sierra Springs Water, Simpler Life Emergencies, Swift Trans, Up the Creek Water Works, US Foods, Valley Water Service, Walgreens, Wal-Mart/Sam's Club, Water Runner, Water to Go, Water.com/DS Waters, Whole Foods.



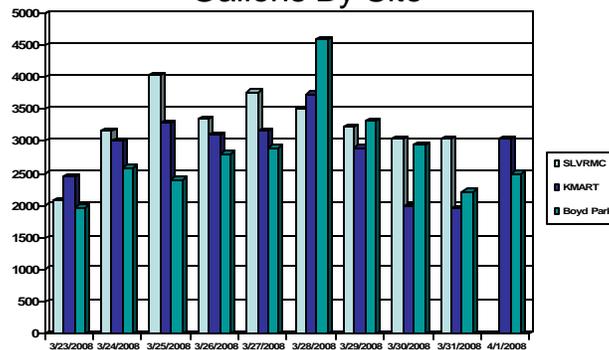
Total Water Distribution In Gallons



Total Water Distribution In Gallons By Time



Total Water Distribution In Gallons By Site



The Rocky Mountain Poison and Drug Center (RMPDC) staffed the COHELP information line with the mission of providing consistent, accurate, and up-to-date information to the public. They possess the capability to take up to 1,000 calls per hour through telephony, integrated voice response unit, and technology. During a fourteen day period, they received 2,544 calls. On heaviest day they received 486 calls and the heaviest hour was 90 calls. RMPDC reported to CDPHE on a daily basis: call volume; top five frequency asked questions; and call trend analysis. Weekend coverage was provided by registered nurses at RMPDC for medical support.

This was the first activation of the CDPHE sponsored Colorado Water/Wastewater Agency Response Network (CoWARN), which was launched in September 2007. Currently, it involves 47 public and private water and wastewater utilities, industry support organizations and government members whose mission is to provide immediate assistance to members in emergency. Participation in this network is purely voluntary. (Colorado is one of only six states that have a mutual aid system like this.) During this incident, CoWARN<sup>2</sup> provided technical expertise, equipment and supplies to the City of Alamosa through the assistance of 23 water and wastewater utilities, industry support organizations and the State of Nebraska (through the Mid-America Alliance). CoWARN coordinators from CDPHE, Denver Water, and Aurora Water operated through the CDPHE DOC.

Throughout the “Red” and “Yellow” phases of system flushing, disinfection, and water sampling, CoWARN crews worked 12 hour shifts. CoWARN members provided technical expertise, equipment and supplies to Alamosa that were critical to proper system disinfection and water sampling throughout the flushing events and into system recovery. As the “Red” and “Yellow” phases of flushing commenced, additional technical resources, including certified professionals, equipment and supplies, were provided to support staff at the City’s wastewater treatment plant. On March 27, Metro Wastewater Reclamation District experts met at the CDPHE office in Denver, with Alamosa, CDPHE, Aurora Water/Reuse, and Pinery Water and Wastewater District personnel on the phone, to develop a strategy to address Alamosa’s needs.

CoWARN members directly involved in this incident included: Aurora Water, Canon City, City of Boulder, City of Golden, City of Greeley, City of Longmont, City of Pueblo Wastewater, City of Thornton, Colorado Springs Utilities, Denver Water, East Alamosa, East Cherry Creek Valley Water and Sanitation District, Fort Collins Utilities, Fremont Sanitation District, Littleton /Englewood Wastewater Treatment Plant, Metro Wastewater Reclamation District, Parker Water and Sanitation District, Pinery Water and Wastewater District, Prospect Mountain Water Company, Pueblo Board of Water Works, South Adams County Water and Sanitation District, Town of Castle Rock, Town of Erie, Town of Monument, Ute Water, Colorado Rural Water Association, and Rural Community Assistance Partnership.

The investigation of the source of the contamination continues.

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<sup>2</sup> CoWARN establishes an agreement and protocols for matching resources and needs among water and wastewater utilities statewide, in advance of a real emergency. Having signed “Mutual Aid Agreements” in place was critical for quick response and mutual aid between Alamosa and other utilities. The CoWARN website provides a forum for establishing and maintaining emergency contacts and communicating specialized needs and resources, in real time, in response to emergencies at water and wastewater systems.

## Recovery

One of the adverse effects of this situation was the economic impact upon local businesses.

The community did qualify for Small Business Administration loans. No other federal financial assistance was available.

As of May 14, not all reimbursement requests had been received. However based upon initial estimates, the amount of funding committed from the State Disaster Fund was:

Categories	Amount (est)	Remarks
DMVA	\$100,282.00	Deployment to Alamosa
Equipment rental	\$ 13,475.00	Deployment to Alamosa
IMTs	\$ 98,900.00	Deployment to SEOC and Alamosa
PIO Support	\$ 3,300.00	Deployment to Alamosa
<b>TOTAL</b>	<b>\$215,957.00</b>	

\*Colorado disaster number is CO-CDEM\_39S

The following governmental / non-governmental agencies that were involved in response and recovery operations:

- Alamosa County and City Management
- Alamosa County Nursing
- Alamosa County Office of Emergency Management
- Alamosa County Road and Bridge
- Alamosa County Sheriff's Office
- Alamosa Fire Department
- Alamosa Police Department
- Alamosa Water Department
- American Red Cross
- City of Durango
- City of Fort Collins
- Colorado Department of Agriculture
- Colorado Department of Corrections
- Colorado Department of Human Services- Mental Health
- Colorado Department of Public Health and Environment
- Colorado Department of Transportation
- Colorado Information Analysis Center
- Colorado National Guard
- Colorado Rural Water Association
- Colorado Veterinary Medical Foundation
- Colorado Volunteers Active in Disaster (COVOAD)
- Congressman John Salazar's Office
- Costilla County

Denver Environmental Health  
 Division of Emergency Management  
 Division of Fire Safety  
 Division of Local Government  
 Eastern Colorado Incident Management Team  
 FEMA Region VIII  
 Governor Ritter's Office  
 Governor's Office of Economic Development  
 Governor's Office of Homeland Security  
 Jefferson County Incident Management Team  
 Local Public Health Agencies  
 Northwest Colorado Incident Management Team  
 Rio Grande County  
 Rocky Mountain Poison and Drug Center (COHELP)  
 Saguache County  
 Salvation Army  
 San Luis Valley Mental Health  
 San Luis Valley Regional EMS/RETAC  
 Small Business Administration  
 U.S. Centers for Disease Control and Prevention (CDC)  
 U.S. Department of Health and Human Services  
 U.S. Food and Drug Administration  
 U.S. Forest Service  
 U.S. Senator Ken Salazar's Office

**TIMELINE OF EVENTS:**

Mar 6, 2008	First case of salmonella reported in the City of Alamosa
Mar 14, 2008	Salmonella case reported to CDPHE
Mar 15, 2008	DEM Duty Officer notified.
Mar 17, 2008	Alamosa County Emergency Operations Center activated
Mar 18, 2008	52 cases of suspected salmonella reports SEOC activated at Level II
Mar 19, 2008	CDPHE issues bottle water order for the City COHELP line (1-877-452-2911) activated (between notification and activation was three hours) CDPHE CoWARN (mutual aid) network activated (Denver Water, Aurora Water, and Fort Collins Utilities had crews, equipment, water containers and a tanker truck immediately available) DEM Regional Field Manager Staff deploy to and arrive at Alamosa EOC. (Denney on 3/19; Gavelda on 3/20) Denver Water and CDPHE Water Quality personnel arrive in Alamosa
Mar 20, 2008	Three water distribution points established CoWARN meeting takes place at CDPHE to plot strategy
Mar 21, 2008	City of Alamosa signs CoWARN mutual aid agreement

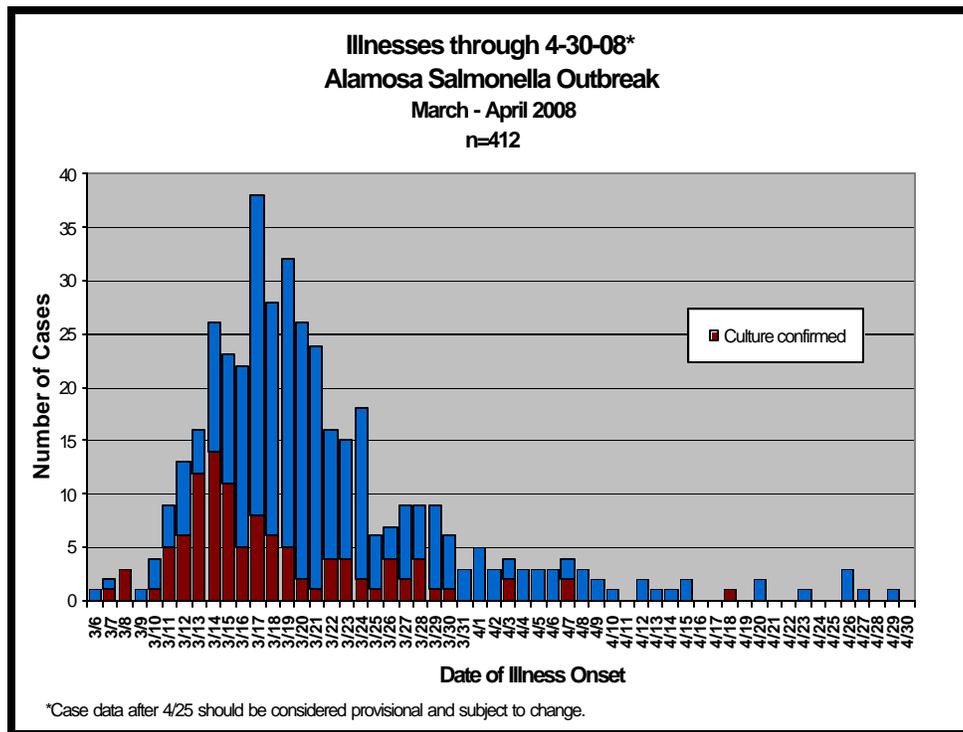
Governor declares Public Health emergency (Executive Order D 006 08)<sup>3</sup>  
 Colorado National Guard deploys  
 Mar 22, 2008 Governor, US Senator Ken Salazar and US Representative John Salazar  
 tour city and Alamosa EOC.  
 Mar 23, 2008 Jefferson County Incident Management team (IMT) arrives  
 Volunteers distribute approximately 5,000 flyers  
 Mar 24, 2008 Alamosa water samples test positive for salmonella  
 Local press conference occurs  
 Additional CoWARN requests occur  
 Formal request to US Department of Health and Human Services is made  
 by the Governor  
 Mar 25, 2008 Alamosa public schools are closed  
 Governor issues Executive Order D 007 08, amending D 006 08  
 Mar 26, 2008 City placed in “Red” status  
 CDC personnel arrive  
 Mayor begins daily televised statements on Channel 10  
 CoWARN partners from Pueblo Board of Water Works, Colorado Rural  
 Water Association, and the State of Nebraska arrive on scene  
 Mar 27, 2008 Salvation Army provides vouchers for paper products  
 Northwest IMT relieves Jefferson County IMT  
 Mar 28, 2008 “Red” phase is completed, City moved to “Yellow”  
 89% of all regulated food service/institutional facilities remain open. All  
 are contacted by CDPHE/Consumer Protection Division  
 SEOC deactivated  
 Mar 29, 2008 CoWARN partners from City of Boulder and East Cherry Creek Valley  
 water and Sanitation District arrive on scene  
 Mar 30, 2008 Transition plan to go “Green” is issued  
 Mar 31, 2008 Schools reopened  
 Eastern Colorado IMT relieves Northwest IMT  
 Apr 01, 2008 CoWARN crews demobilized  
 Apr 03, 2008 CDPHE boil water order is issued  
 Apr 08, 2008 Water sample shows the presence of Giardia<sup>4</sup> and Cryptosporidium<sup>5</sup>  
 (samples taken prior to flush)  
 Apr 09, 2008 Post-flush samples shows the absence of Giardia and Cryptosporidium  
 Apr 10, 2008 Total number of cases reported = 399, hospitalizations = 16  
 Apr 11, 2008 Boil water order is rescinded, water can be consumed by residents  
 Apr 18, 2008 Only death related to salmonella incident is reported  
 May 29, 2008 A Colorado Open Records Act request is submitted to DOLA and CDPHE

<sup>3</sup> This Executive Order: (1) activated the State Emergency Operations Plan; (2) when necessary, utilizes assets from the Colorado National Guard; (3) releases funding for authorized expenditures (up to \$300,000) from the State Disaster Fund; and (4) Colorado Department of Transportation is authorized to waive selected fees/restrictions that may impede rapid support to the City of Alamosa.

<sup>4</sup> Giardiasis is an infection of the intestines caused by the parasite Giardia lamblia.

<sup>5</sup> Gastroenteritis is a condition that causes irritation and inflammation of the stomach and intestines (the gastrointestinal tract). An infection may be caused by bacteria or parasites in spoiled food or unclean water.

Based upon the number of received reports regarding suspected/confirmed cases, the chart below graphically illustrates the progress of the incident.



Source: Colorado Department of Public Health and Environment

### LESSONS LEARNED:

**ITEM:** Need for Internet AirCard

**DISCUSSION:** ALL Field Managers should be issued an internet AirCard in order to have e-mail capabilities while in the field or responding to an event for timely transmission and flow of information and ability to utilize WebEOC, etcetera.

**RECOMMENDATION:** SLV/SW Regional Field Manager official request and justification being processed.

**ITEM:** Need for P-Card

**DISCUSSION:** Most incidents (natural hazard, technological, or terrorism) that occur within the State of Colorado occur with no notice. The direct effects of these incidents include, but not limited to, are: life safety of human and animal populations, provision for immediate needs, restoration of basic services, protection of property, and the re-establishment of the jurisdiction's critical infrastructure. Altruism does not always come to the forefront during emergencies. During many of these incidents, response activities are time sensitive. The timely acquisition of such items as first aid material, water, fuel, generators, etc can have an immediate impact which could also be justified using a cost-benefit ratio (immediate expenditures vs long-term effects that could be measured in both soft and hard costs). The DEM Regional Field Managers are charged with facilitating the response and recovery activities for the impacted jurisdiction(s). However, they are not provided with all of the tools to rapidly and effectively succeed in their

mission. The primary tool that is denied to these managers is the possession of a departmental purchase card (P-Card). Having a P-Card could allow them to immediately fill an identified need of the jurisdiction and its victims as well as clearly demonstrating State government's concern and ability to assist the victims of a disaster emergency.

**RECOMMENDATION:** With the appropriate guidance, issue each of the DEM Regional Field Managers a P-Card.

**ITEM:** SEOC getting involved in local tactics

**DISCUSSION:** Throughout the incident, it had been evident that the State Emergency Operations Center attempted to direct the on the ground tactics of the local Incident Commander and the Incident Management Teams. Attempting to exercise control from a remote location such as Denver is laced with pitfalls that could result in errors being made during both the response and recovery phases of the operation. Some helpful courtesies that were not followed and became a problem at the local EOC level, with regards to the SEOC included: 1) Allow local jurisdiction in charge of event to speak on conference calls without constant interrupting; and 2) Read and listen to all the information provided to the SEOC from the local EOC before repeating requests for information already provided (this placed more of a burden on the locals, who were actually experiencing the event). Communicate more directly with DEM staff at the local EOC regarding resources, IMT expertise make-up, et cetera. They are the eyes and ears at the event and are aware of nuances and local political climate and relationships (or lack thereof) that may not be acknowledged at SEOC. Regional Field Managers are better able to offset and finesse these issues. Again, let the locals provide input and requests to the SEOC rather than take assignments from the SEOC.

**RECOMMENDATION:** The SEOC must recognize their role is not at the tactical level when they are not in command of the incident. That is a local responsibility.

**ITEM:** CoWARN

**DISCUSSION:** Following a year of discussion, organization, legal review, and planning, the CoWARN organization was initiated as a viable mutual aid structure for a unique sector of the State's critical infrastructure. CoWARN is a partnership between utilities, the state primacy agency (CDPHE), and utility professional organizations. It builds upon other agreements such as the Mid-America Alliance and the Emergency Management Assistance Compact (EMAC). This was the first employment of the CoWARN system. The successful implementation of the system indicates its viability and can be used as a foundation if a similar event were to occur.

**RECOMMENDATION:** Continue to expand the role and capabilities of this mutual aid network

**ITEM:** Public information

**DISCUSSION:** The issuance of accurate public information is critical during all incidents regardless of their cause. For this incident, there were basically two forms of public information. The first being press releases that are easily understandable and geared towards the larger audience of the media and the general population. These releases are coordinated through the Joint Information Center (JIC). The second is officially worded statements, such as orders (in this example: boil your water before your drink; do not consume any water; etc). Agencies that are authorized to issue such orders have specific statements which must be made. Most of these

are the result of legal actions that have previously occurred. Because of this, their wording should not be changed, but still issued through official channels as well as the JIC.

**RECOMMENDATION:** Different departments have different statutory requirements that they can exercise. When these are issued, they should be kept as is. When appropriate, an accompanying press release can be published.

**ITEM:** Public Information

**DISCUSSION:** If a true JIC were being utilized, changes in messages would not have occurred from state to local level and vice versa. Better communication and multi-agency authorization between state and local jurisdictions was needed.

**RECOMMENDATION:** Local officials, the IC's (IMT & local) eventually worked out a system to approve and clarify all messages and official authorizations through the multi agencies involved. It is imperative that state agencies issuing official orders and statements have emergency personnel available 24/7 for public information questions and crises from locals as the event was very fluid, complex, and strategies/tactics changed moment by moment. Official authorizations need to be clearly communicated to and within the local EOC / ICs / PIOs as well as any deviations from an official message, regardless of time of day or staffing.

**ITEM:** Recovery

**DISCUSSION:** By doctrine, when an incident occurs and the response phase begins, the recovery phase also begins. In most cases, recovery from an incident is more complex and longer in duration than response. Recovery is a coordinated effort to bring the affected jurisdiction back to its original condition. For this incident, a better coordination effort between the participating agencies could have occurred. This would have ensured that gaps were filled and duplicative actions were eliminated.

**RECOMMENDATION:** All actions should be conveyed to all partners.

**ITEM:** Visual identification within the SEOC

**DISCUSSION:** For those individuals who augment the SEOC staff, they may not be familiar with who represents what agency. DEM has preprinted agency name plate (plastic tents). Because each incident is different, two agencies could be sitting together one time and for a different incident the same two may need to work with different agencies. This is one reason why there is no assigned seating in the SEOC but it does challenge augmentees along with visitors.

**RECOMMENDATION:** When the SEOC is activated, agency representatives should be given these name tents and place them on top of the computers screen there are using.

**ITEM:** Standard Operating Procedures (SOP)

**DISCUSSION:** As the evolution of the SEOC continues towards the full implementation of the Incident Command System, one of the steps that need to occur is the development of SOPs for each Section, Division, Branch, and individual positions. This will be a long process, but we will a benefit to the team's augmentees or someone who is new to the activities of a State EOC.

**RECOMMENDATION:** Develop SOPs

**Issue:** Incident Action Plan

**Discussion:** During the Alamosa incident, for the first time, the State Emergency Operations Center (SEOC) used a modified version of an Incident Action Plan (IAP) using the Excel format. This document had originally been designed for use by a Colorado Type III Incident Management Team. In order to meet State-level incident management needs the internal format was modified. Advantages of using this program: (a) excluding maps, it provided the IAP in one document file verses previous iterations where the IAP was comprised of multiple files; (b) easily transferable to other entities that were not present in the SEOC. Disadvantages: at the State-level there had been no prior training on the Excel version of the IAP so some aspects were new. A longer-term issue would be the establishment of one computer program format to be used statewide at all jurisdictional levels.

**Recommendation:** Continue to modify the internal format in order to better meet State-level incident management needs. Eventually, this version may be replaced by I-Suite.

**Issue:** Input to the Incident Action Plan

**Discussion:** As the SEOC moves more towards practicable implementation of NIMS/ICS, the input of data into the Incident Action Plan becomes key. During this incident, the actual use of the ICS 204 (Assignment List) by the Operations Chief to gain input from their Emergency Support Functions was successfully used for the first time. Also, for the first time, was the use of the ICS 213RR (Resource Request Message), which helped track resources and expenditures. This became critically important following the receipt of the Governor's Executive Orders (D 006 08 and D 007 08) which allocated \$300,000 towards the incident response and recovery. Upon an initial review of proposed expenditures, the \$300,000 amount had been eclipsed by unapproved commitments. On the other side, for example, an ICS 202 (Incident Objectives) was never received from the SEOC Manager. So, inputs were hit and miss.

**Recommendation:** Continue to recognize that there is a formal process for documenting actions. Supposedly, all staff is to have taken ICS 100 and 200, and some senior staff are to have taken ICS 300 and 400, so there should be a identifiable recognition of the importance of using documentation. This is critical when a lawsuit is brought during or after an incident and all documentation is required to be presented.

**Issue:** SEOC Position Checklists

**Discussion:** Following a review by DEM staff, in December 2007, the SEOC Position Checklists were published for use with the SEOC was activated to assist individuals in identifying their tasks. These have been compiled from several Incident Command System courses, websites, and lessons learned. During this incident, it was observed that the checklists for the Plans and Admin/Finance sections were the only ones used. It was hoped that eventually these checklist would replace Appendix 1 (SEOC Position Procedures/Checklists), Emergency Support Function 5 (Emergency Management), State Emergency Operations Plan during the next scheduled review.

**Recommendation:** Use and continue to refine the checklist(s).

**Issue:** Augmentees to Planning Section

**Discussion:** Based upon: (a) current staffing levels within DEM and (b) specified and implied tasks associated with a State-level Planning Section during an incident. There are an insufficient

number of personnel available to adequately fill one twelve-hour shift let alone a 24/7 operation. This dictates the augmentation from outside agencies and organizations of personnel (teams or individuals) to ensure the Planning Section is successful in meeting its responsibilities. Many of these teams/individuals have different knowledge or experience which could result in having either a positive or negative impact upon the Planning Section. To assist in mitigating this, there needs to be a quick orientation to the policy and procedures of the Section.

**Recommendation:** Develop an initial orientation and introduction to the section needs to take place.