

IOWA DEPARTMENT OF PUBLIC DEFENSE

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

The Iowa National Guard is responsible to provide various types of personnel and equipment support to state and local agencies during periods of declared disasters. This is rendered in a support rather than a lead status so that the lead supported agency is always civilian. The Guard normally supports in a state active duty (militia) status with the Governor exercising control through The Adjutant General.

II. ORGANIZATION FOR EMERGENCY OPERATIONS

The Guard forces were organized into task forces to provide support on both an agency specific and area basis. For example, TF 113 consisting of two subordinate task forces provided area support generally east of I-35 and south of I-80. Within that area, elements of the Guard worked with specific agencies and communities to provide assistance. In central Iowa, the task forces worked much the same way with the exception that one was given a specific water distribution mission.

Liaison and coordination teams from the state headquarters were placed in key city and county emergency operations centers (EOC) to facilitate Guard support for the impacted areas. State headquarters personnel were sent to the State EOC to augment the staff there for 24 hour operations. At the height of the disaster response, The Adjutant General sent the Deputy Adjutant General to the State EOC for the purpose of coordinating all state and federal response activities.

The National Guard EOC at Camp Dodge was activated and staffed for 24 hour operations commencing late on 27 June, and continued to operate on a 24 hour basis through 7 August.

One very unique aspect of our response effort was that out-of-state National Guard units were brought in to conduct the water purification mission, primarily for Des Moines area hospitals. Units from Alabama, Arkansas, Kentucky, North Dakota, and Ohio provided a total of 32 reverse osmosis water purification units with operators for the period 13 July through 2 August. CH-47 helicopters from the Texas Army National Guard were used to support operations at the Des Moines Water Works.

As of October 31, over 30,000 days of state active duty had been expended for flood support operations at a cost of over \$3,000,000.

It should be noted that very little active duty military support was used in the disaster response. Forces Command provided a total of 6 potable water tankers to assist in operations for the Des Moines area.

III. SUMMARY OF EMERGENCY OPERATIONS

A. DISASTER RESPONSE PHASE

Prior to 27 June, the Guard had provided limited support to the Cedar Rapids and Waterloo areas

because of flooding on the Cedar River in early April. Support was provided for sandbagging and aerial search. Our major response phase began along the Mississippi River on 27 June with sandbag and security operations for the Quad Cities area. As the river continued to rise, and the long crest moved downstream, additional communities and agencies requested support. The lower Iowa and Des Moines River Valleys started to present problems shortly after the July 4th weekend, resulting in more Guard support for a number of communities. It was at this point that widespread, very heavy rainfall in Central Iowa began to cause very serious local flooding in many towns. More rain was on the way.

The Guard continued to respond to numerous requests from an evergrowing number of communities through the first 10 days of July. Organization for missions was previously mentioned. On 10 July, the cities of West Des Moines and Des Moines began to experience severe flooding, resulting in the commitment of hundreds more Army and Air Guard members for sandbagging, evacuation, and security missions. It was during this situation that the Des Moines Waterworks was flooded out, causing a potable water shortage for over 250,000 local residents. Additional Guard members were then assigned to assist in establishing and operating distribution sites throughout the metropolitan area. At the peak of operations, there were over 2,000 Guardsmen on duty, with over 1,000 on duty in the Des Moines, area alone. The Guard also supported by dispensing water and operating a public shower point at Camp Dodge.

Operational support for eastern and southeastern Iowa ended on 30 July. Operational support in southwest Iowa terminated on 6 August. Water purification and distribution operations in Des Moines ceased on 2 August. All out of state personnel and equipment redeployed over the 5-16 August period.

B. DISASTER RECOVERY PHASE

The Guard normally is not involved in operational support for the recovery phase. However, elements of the 224th Engineer Battalion did complete several civil work projects in impacted communities as part of their home station annual training plan. One of these was the installation of a temporary bridge at the state fish hatchery near Spirit Lake.

The Deputy Adjutant General was named by Governor Branstad to lead the Iowa Flood Recovery Coordination Team, as Guard leadership was heavily involved in coordinating all recovery efforts.

Maintenance of equipment used and/or damaged during the response phase continued until completion. The temporary bridge is expected to be recovered in the spring of 1994.

IV. AREAS OF EXCELLENCE

A. The task force method of organization provided flexibility and good command and control.

DISCUSSION: The Iowa National Guard Emergency Plan envisions this type of command organization for use in all major support operations. Organic battalion and brigade headquarters are base units for building the force. If a battalion needs augmentation with specific types of resources, those resources are attached to battalion task force.

B. The Code of Iowa places emergency management supervision with The Adjutant General of Iowa.

DISCUSSION: In disasters where large numbers of the military forces are used, this works especially

well in providing a coordinated response. The military staff training in estimating, planning, and executing operations provided order and discipline to a massive and sustained effort involving both civil and military resources.

C. National Guard Bureau sent a forward liaison team to Camp Dodge to assist with logistics issues that were beyond command capability.

DISCUSSION: In other recent major disasters, NGB has done similar action. The team helped locate additional pumps, backup generators, and repair parts needed for the water purification and distribution mission.

D. A proactive media relations effort is essential to get accurate and timely information to the public.

DISCUSSION: When possible, a trained public affairs officer should accompany the supporting task force. This permits photo and print documentation of events as they happen and allows the commander to concentrate on the work to be done. In the absence of a public affairs officer, the commander or a person designated by the commander, must make themselves available to the media to present the Guard story. The Adjutant General took an additional step in writing letters to many newspapers, both in and out of state, to thank all of our fellow citizens for their support.

E. The state headquarters staff has routinely been used to augment the State EOC during federally mandated nuclear power plant emergency training exercises.

DISCUSSION: This training paid great dividends in the early stages of the Des Moines flooding since Guard personnel were basically familiar with how the EOC operated and who was responsible for doing a particular emergency support function. However, as time went on and fresh people were brought in, some problems were noted in how well the newcomers were briefed on roles and responsibilities.

F. Cellular phones were the key linkage for command and control.

DISCUSSION: Although military radios and normal telephones were available, using them tied key leaders to either a vehicle or a desk. By using cellular phones, the leaders were free to move throughout the supported area and maintain almost instantaneous communications, thereby saving a tremendous amount of time in coordinating actions. Where the service is available, the phones are a must for emergency operations.

G. The Department of Public Defense purchasing office was very responsive in meeting needs of the deployed troops.

DISCUSSION: Though staffed only for routine day to day operations, the purchasing office arranged for everything from foot powder to life vests, in providing the goods and services needed to support a variety of missions and situations. The missions simply could not have been done in many cases had they not provided this essential service.

H. Deployment and re-deployment of out-of-state Guard units went smoothly.

DISCUSSION: The soldiers and equipment that arrived in Iowa were basically treated as our own

from top to bottom. Our task force command structure looked to their every need to ensure that they were treated professionally in accomplishing their mission. They were housed and fed either at their work site or in Camp Dodge billets. The task force commander made regular phone contact with the units' home state command to keep them informed of progress on the mission. At the close of operations, all of the equipment that had been flown in was taken back to its home station by our truck drivers. All of the soldiers who came to Iowa were given recognition in the form of ribbons, awards, and certificates.

V. PROBLEMS/ISSUES

A. One problem surfaced was that there was a lack of depth of knowledgeable people from many of the agencies required to be in the State EOC.

DISCUSSION: The primary designated responders who had worked on the previously mentioned nuclear power plant exercises had the basic expertise to commence a very intense operational period. However, as these people became exhausted, their replacements were not properly prepared and briefed as to what their authority was and which agency was responsible for Emergency Support Functions under the Iowa Multi-Hazard Plan.

RECOMMENDATION: State department heads must ensure that there is adequate depth on their teams for sustained operations. This is especially critical during the initial 72 hours of operations when there is already enough confusion in getting a coordinated response in place. One method would be to conduct departmental training on the basic plan with emphasis on department/agency responsibilities followed by a State EOC level exercise lasting 18-24 hours where each department would be required to demonstrate at least one shift change.

B. A number of State Area Command (STARC) soldiers who were full time employees were assigned to perform operational support, taking them away from critically needed administrative and logistics functions that were essential for support of all field operations.

DISCUSSION: It is understandable how all available troops would be involved in a massive initial response. However, administrative and logistical functions needed for sustained operations must be an important consideration when tasking out missions. If additional troops are required within the impacted area, they should be brought from outlying units rather than stripping out soldiers from critical headquarters functions.

RECOMMENDATION: Guard EOC operations officers must be cognizant of total force current and potential requirements when tasking out missions.

C. Some units did not keep accurate soldier accountability records as required by the Guard Emergency Plan.

DISCUSSION: Unit commanders either were not familiar with or did not enforce strict personnel accounting. This resulted in many soldiers receiving late pay and/or other entitlements. As of 26 October, we were still receiving requests for orders for duty performed in July. It is essential that commanders and their junior leaders maintain accurate daily (and sometimes hourly) strength reports for pay, reporting, and safety purposes.

RECOMMENDATION: Battalion commanders must ensure that their unit commanders are familiar with and enforce the personnel accountability and reporting requirements of the Guard Emergency Plan for state active duty.

D. The established system for publishing state active duty orders was not implemented, and personnel unfamiliar with administrative requirements of state active duty attempted to establish a whole new system.

DISCUSSION: The existing system for orders never envisioned placing over 2,000 soldiers on duty at one time or for multiple iterations of duty at locations virtually all over the state. It was set up for central input based on unit personnel attendance records and the orders were done after the duty was completed. In this disaster, soldiers were ordered to duty not knowing when the duty would end. Therefore, potential pay problems were being generated since individual payment for duty had taken 2-3 weeks after duty completion, historically. The pay problem interim solution was to use a cash advance casual payment to the soldier. The eventual solution to the orders problem was to send an edit list to the unit for verification of duty dates on each soldier who had been identified as having performed duty.

RECOMMENDATION: The Military Support Officer, Orders Section, Comptroller, and unit administrators should form an action team to come up with a revised system that closely mirrors the federal orders process in order to expedite input, improve personnel accountability, and to streamline the whole orders process.

IOWA EMERGENCY MANAGEMENT DIVISION

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

The Iowa Emergency Management Division (IEMD) is responsible for the administration and operations of disaster preparedness, response, recovery, and mitigation programs.

PREPAREDNESS

- * Develops and maintains of state multi-hazard plans encompassing natural, man made and technological hazards.
- * Trains in the four phases of emergency management (preparedness, response, recovery and mitigation) related to all types of disasters.
- * Coordinates with state, local and federal agencies in each phase of emergency management.

RESPONSE

- * Serves as Governor's Authorized Representative (GAR), and State Coordinating Officer (SCO).
- * Provides technical and personnel assistance under conditions of a non-declared emergency or disaster.
- * Provides enhanced technical and personnel assistance to include coordination of state resources under a Governor's Emergency Proclamation.
- * Responsible for coordination, gathering, organizing and submission of adequate information to the Governor when a Presidential Disaster Declaration is sought.
- * Responsible for the coordination of all agencies when the Federal Response Plan is implemented, and organization and management of the State Emergency Operations Center.
- * Coordinates with all state agencies prior to and during disaster response activities.

RECOVERY

- * Serves as Governor's Authorized Representative and State Coordinating Officer.
- * Coordinates initial damage assessment in conjunction with affected counties.
- * Under the condition of a disaster declaration, manages Public Assistance and Hazard Mitigation Programs.

* Supports an enhanced damage assessment program to facilitate financial aid to damaged jurisdictions.

* Under the policies of a disaster declaration, jointly establishes and coordinates Disaster Assistance Center operations with Disaster Field Office management.

MITIGATION

* Coordinates mitigation programs which postpone, dissipate, or reduce the effects of a disaster.

Emergency management begins at the local government level. Local officials are responsible for assessing the potential threat of a variety of man-made and natural hazards; for mitigating the effects of these hazards, and for planning, training, and exercising in preparation for disaster events. Local officials render the initial response to a disaster situation and provide important integrative and informational functions in the management of a disaster. They maintain their own emergency operations centers and coordinate activities of local responders and voluntary organizations.

IEMD works in conjunction with local officials in facilitating their emergency management efforts by assisting and providing guidance in hazards analysis, providing training programs, and assisting in the development of exercise programs.

Once the effects of a disaster surpass local government's ability to respond, it is IEMD's responsibility to coordinate and facilitate state response and assistance. In accomplishing this duty, the division works closely with the Governor's Office and each department and division of state government that may play a role in responding to local government needs. Division coordination may include opening the State Emergency Operations Center and having agency representatives there to concentrate their disaster efforts.

II. ORGANIZATION DURING EMERGENCY OPERATIONS

IEMD began responding to flood concerns as early as mid-March. In the early stages of the flooding, calls to the State EOC from city and county officials were placed to express flooding fears and questions on river levels and needed resources.

As the rains continued and increased readiness in Iowa began to build, the State EOC, located on A-level of the Hoover State Office Building in Des Moines, was staffed by divisional personnel and open during normal working hours. During non-working hours, communications and concerns were controlled by contacting the 24-hour duty officer. As rain increased and rivers rose and flooding became more intense and widespread, the need to increase staffing and operating hours advanced the EOC into 24-hour operations. Numerous state and federal agencies were represented in the EOC or available for specific needs.

III. SUMMARY OF EMERGENCY OPERATIONS

A. DISASTER RESPONSE PHASE

The State EOC functioned as a 24-hour, fully staffed operation from June 27 until July 30, 1993. The control of briefings and coordination of traffic flow within the EOC was the responsibility of the EOC Chief of Staff. Due to the demand on Emergency Management staff, officers from the Iowa National Guard were assigned this task, as outlined in the Iowa Emergency Plan. Situational briefings were scheduled twice daily. Personnel from numerous state and local agencies were brought in to add continuity to day-to-day office staff in answering phones and support of the primary EOC participants.

The Governor not only issued disaster proclamations, he also exercised his powers to waive restrictive rules and timeliness that would otherwise have impeded disaster response and recovery efforts. Specifically, the Governor:

- * Extended his disaster proclamation to enable local government to continue to avail themselves of state resources.
- * Waived state rules requiring the advertisement of bids for certain transportation projects.
- * Suspended limitations on funding requirements for arts organizations.
- * Extended time for completing Emissions Inventory Questionnaires (EIQs).

Multiple activities took place in direct support of the EOC operations. These operations consisted of:

- * An advanced media operations center, located on A-level of the Hoover Building, just outside of the EOC as designated in the Iowa Emergency Plan.
- * Kitchen facilities in support of the EOC, located on B-level of the Hoover Building, as designated in the Iowa Emergency Plan. These facilities were operational for only a brief period, after which time this component was taken over by volunteer organizations.

- * Shower facilities, located on A-level of the Hoover Building adjacent the EOC, as designated in the Iowa Emergency Plan. These facilities are supported by their own water supply and were operational due in large part to the flooding of the Des Moines Water Works and loss of city water.

Concern built, as the flood response continued to create additional demand on the already crowded and stressed EOC operation. As a result, an alternate area was designated and equipped on B-level of the Hoover Building to respond as needed. Of primary concern was implementation of the state's Radiological Emergency Response Plan (RERP) and the four Nuclear Power plants addressed by the RERP plan.

The coordination of the huge demand for resources is addressed in the Iowa Emergency Plan. Separate work areas on both A & B-levels of the Hoover Building were designated to administer this portion of the emergency plan.

On July 11, 1993 the demand for state resources increased once again with the flooding of the Des Moines Water Works and the additional problem of an estimated 250,000 residents without water. Meetings were held at the State EOC to coordinate the relief effort needed to satisfy the water needs for both businesses and residences in a four-county area for the next twelve days.

Some of the major areas where the state provided assistance to the Des Moines area on July 11, 1993 were:

- * Assistance in formulating a strategy in how to distribute emergency drinking water to the citizens in need.
- * Assistance in locating and providing hygiene items, such as portable toilets.
- * Military assistance in providing water purification units for the hospitals in the City of Des Moines.
- * Military assistance in securing and reestablishing the operation of the Des Moines Water Works. A major portion of this assistance consisted of helicopters to lift equipment into and out of the location along with numerous flights with sandbags to secure the levee surrounding the water plant.

COMMUNICATIONS

During the floods, Emergency Management personnel were being dispatched throughout the state. Communications used by field personnel were telephone, pagers and cellular phones. Commercial landlines were the main connectivity to the State EOC.

The State of Iowa Emergency Broadcast System (EBS) was activated to warn the citizens of the increasing flood threat as is emphasized in the Iowa Emergency Response Plan.

The Radio Amateur RACES group provided 24-hour communications for several Emergency Operations Centers in Des Moines. They provided rumor control information along with personnel tracking.

Computer equipment and supporting software increased as additional agencies occupied the EOC.

Telephone line overload became an increasing problem in the EOC as the disaster continued. Donation calls contributed to this problem. The need to more closely coordinate donation efforts necessitated the establishment of a donations operations center outside the main EOC.

Fax machines were being tied up by lengthy reports, e.g. Situation Reports (SITREP), reservoir status reports, etc. Additional fax machines were purchased to alleviate the burden on the system. A total of four machines were purchased for the following locations; Disaster Field Office in Davenport, donations group, public affairs personnel and a backup machine for State EOC.

The FEMA MERV (Mobile Emergency Response Vehicle) was requested to respond from Denver, Colorado. The request originated due to the threat of elevated river levels at the Grand Avenue

Bridge, posing a potential loss of communications to the State EOC. An additional threat occurred when numerous large pleasure craft anchored in Birdland Marina, just north of the Grand Avenue Bridge, were torn from their docking as river levels continued to rise. The Grand Avenue Bridge carries telephone lines to the offices located in the Capitol Complex and were in danger of being severed.

The MERV vehicles also provided emergency power generating capabilities. In addition, water purification capabilities and air conditioning, which is vital to the continued usage of sensitive electronic equipment was provided.

Radio communications were established with the MERV's units with the use of FEMA's FNARS (FEMA National Radio System).

LOCAL GOVERNMENT ACTIVITIES

PREPAREDNESS: During the preparedness phase, Emergency Management personnel were cognizant of the planning and preparedness requirements and expedited a review of what was in place within their county, towns, and cities. Not only were exercises conducted, but a series of activities took place when it became evident that flooding was eminent. Partially, those activities included:

1. Plan checklists were reviewed and plans updated appropriately.
2. Warning systems were checked as well as the Emergency Communications systems.
3. Evacuation plans were checked and updated.
4. All resource inventories were confirmed and emergency personnel and volunteer rosters were confirmed for accuracy.
5. A decision was made on the repositioning of sandbags followed by procurement and storage within the county.
6. Public notification and media contacts were confirmed according to local plans.

Disaster operations became more intense as the duration of flooding increased. Depletion of resources required constant monitoring of weather conditions, replenishment and sustainment of volunteers, maintaining a stock of supplies on hand for immediate use, and determining when it was time to replenish those supplies, to name a few. As a result of flooding in previous years, most local jurisdictions had reviewed their resource lists and the local emergency operations plans. However, even the best plans could not handle six months of flooding, three river crests and flooding in every area of the state without outside assistance.

RESPONSE: The flood waters and heavy rains caused numerous, ongoing problems in counties that eventually involved virtually every county agency and many state agencies as well. Examples of the response activities in a sampling of counties include:

CLINTON COUNTY:

When the flood crested at Camanche, the water level was 23 feet, breaking all recorded levels. Flood stage is 17 feet. The level of preparedness in Clinton County was primarily motivated by the county's planning, training and exercises associated with a nuclear power plant located across the river in a neighboring state. There was initially a shortage of volunteers to help fill sandbags. In addition, obtaining more sandbags to meet the demand was difficult. Also, there was a slight delay in completing some response activities for public protection, but none so significant that it affected life or property. Sand itself was never a problem as several rock quarries were located nearby, and companies agreed to supply the sand where it was needed.

With water invading roads, homes and city sewer systems, the need for assistance was immediate. A request for state assistance was necessary at this time. The National Guard was summoned and most expeditiously responded, serving to fill sandbags and post guard to keep "sightseers" away. Clinton County Emergency Management also requested assistance from the local Red Cross Chapter to help feed the masses combating the flood for the duration. They also assisted the citizens of Clinton County, through the Emergency Management Coordinator, with housing the displaced and by conducting damage estimate surveys.

JASPER COUNTY:

Sandbagging began as soon as high water and flooding was reported upstream. Volunteers from Colfax and surrounding communities were called in through mutual aid notification. The water depths were closely monitored for several days until evacuations were complete by persons who received basic training through the local Emergency Management Coordinator. Evacuation was completed by using house to house notification by local volunteer firemen, while adjoining towns covered fire and ambulance calls for Colfax during this time. The Red Cross opened a shelter at the Colfax-Mingo Grade School. The same site would later become the service center for the Red Cross and a local Disaster Application Center.

KOSSUTH COUNTY:

The local radio stations were called together to finalize strategies and possible needs. Construction companies were on hand to provide many resources that had been identified, such as heavy equipment, sand, trucks, pumps and personnel. With the assistance of Iowa Department of Transportation, detour signs and barricades, road closure procedures were implemented. Diking and sandbags were utilized prior to the rise of river levels to prevent buildings from being inundated by the floodwaters. In business areas with temporary diking, dikes were opened only enough to allow traffic to enter to facilitate some business operation.

LINN COUNTY:

Although the Linn County EOC was abandoned six times last summer due to high water, Linn County Emergency Management dealt with the situation effectively. Leaving the emergency operations center and relocating made response even more difficult. Maintaining comprehensive communications with the media and local officials kept the situation under control. Coordination with state officials was slightly hindered due to the inexperience of the county coordinator and the newly elected Mayor of Cedar Rapids. As Linn County officials realized the state's procedures and became more comfortable and

familiar with them, the situation eased. Many resources requested from the state were ultimately located and used in Linn County. Cooperation from surrounding counties and EMA coordinators was excellent. They often provided information or resources that could not be found elsewhere. As the flooding progressed into the summer, the forecasts from the National Weather Service were not as accurate as they were earlier. Communication with the state became more difficult due to new or temporary office personnel. Volunteers manning the telephones at IMFED were not always familiar with the personnel or the procedures of the state office or with the nature of the local government's requests.

LOUISA COUNTY:

In Louisa County, the County Multi-Hazard Emergency Operations Plan was put into action. The county coordinated an evacuation of one city and attempted to evacuate another large, unincorporated area; dealt with contaminated water supplies and provided potable water to one city and 200 other people within the county. Red Cross assisted in the housing for evacuees. Some residents lived in motels for up to six months.

The influx of media requests (local and national) became overwhelming as public interest increased. Local stop points were in place to stop networks from getting through to get their story, any story, unless they used the prescribed means to attain public information. Official tours were organized in the Emergency Management Office. However, with the magnitude of this flood, there was no way one coordinator could accommodate all the touring officials and give assistance to the flood victims at the same time. The ongoing, actual fight of the flood waters seemed easy compared to the political and individual needs that were requested.

MUSCATINE COUNTY:

The main function of the response phase was approached by coordinating all activities through a central point to make sure things were being done as prescribed in the Multi-Hazard Emergency Operations Plan. People were kept on levers to make sure monitoring was maintained; those people who needed to be evacuated were taken care of; rumor control was established with the media. In short, anyone who needed assistance was put in contact with those who could help them, in accordance with the local plan.

POLK COUNTY:

Polk County had to respond to a vast number of flood-related events in 1993 to include the historical loss of the Des Moines Water Works. This one event left 250,000 citizens without water for several days. The problems that followed were numerous, to include the task of furnishing drinking water and sanitary facilities to the citizens. The loss of firefighting capability severely impacted the commerce of the city. Many businesses were unable to function due to blocked streets and the lack of sanitary facilities.

Additional concerns in Polk county centered around major flooding in West Des Moines and the threat to businesses in both this area and along Court Avenue in downtown Des Moines. The loss of a major electrical substation along the Des Moines River caused power outages in parts of Polk County. Close coordination with the electrical supplier caused additional stress on the already burdened Polk County Emergency Operations Center. New and larger EOC facilities became necessary as a direct result of the magnitude of the events occurring. Numerous planning and logistical items are being addressed

as a result of the 1993 flooding in Polk county.

B. DISASTER RECOVERY PHASE

Clean-up began immediately after the water receded. Damage assessment began actually during the response phase and carried through the recovery and mitigation phase. Damage assessment in many cases was not done by the local coordinator, instead was done by a team designated during the preparedness and planning phase. FEMA inspectors were in local areas for both public and individual assistance programs. It should be noted, however, that several persons interviewed did not apply for either public or private assistance because of the complexity and time requirements of the endless paperwork. Those who did apply, however, received assistance from FEMA, the Small Business Administration, Red Cross, Housing and Urban Development, Block Grant Programs, and numerous individual assistance programs. Private grants were also awarded for assistance to individuals and communities. During recovery, local jurisdictions learned the importance of keeping accurate records of cost, labor and materials. It was suggested that a contact person be identified to collect and maintain the records collected by damage assessment teams.

VOLUNTEER, CLEAN UP AND DONATION COORDINATION

During the response phase, a volunteer/donation/needs coordination team was established in conjunction with the EOC. Due to the magnitude and the media coverage IEMD was faced with regulating nationwide personal and business donations with actual unmet needs in Iowa. The state requested FEMA assistance in establishing a donations/unmet needs database. As a result of the work with FEMA, the state developed a very efficient donations/unmet needs process. To support the operation, IEMD activated the cooperative action agreement which allowed for County Emergency Management Coordinators to staff the phone calls received from individuals providing and/or requesting assistance.

Iowa received donations from all over the United States as well as people and businesses abroad. The outpouring of goods was enormous. On the onset of the disaster, many unsolicited goods were received. Although this was initially a problem, the donations coordinators were able to maintain control and coordination of goods coming into the state. Because of unsolicited goods causing problems during Hurricane Andrew in Florida, the donations team established a policy that no goods would be accepted unless a volunteer group, government agency or private concern was willing to accept the responsibility for receivership.

It was very apparent to the team which included representatives from major volunteer organizations (Red Cross, Salvation Army, Food Bank of Iowa, United Way, Adventist Community Services, VOAD, and others) that the donations area is a highly visible and politically charged component which deserves significant attention at the federal, state and local level. Attention was given to each donor and each agency or citizen expressing a need.

A process for handling offers was established and sustained. Reports of items offered were printed daily and distributed to the coordination team, volunteer agencies, management staff, and county agencies for referral.

PUBLIC ASSISTANCE (PA) PROGRAM

The intent of the program is to provide disaster assistance to governmental entities, tribes and tribal organizations, and qualifying private nonprofit organizations which provide services of a governmental nature. The assistance provided is intended to restore the applicant to pre-disaster conditions.

In early 1993, the state had one contracted employee who was responsible for the administration of all previous six Public Assistance disasters. During the month of July, this individual was responsible for gathering preliminary damage assessments from local officials for all 99 counties for the purpose of requesting a Presidential Disaster Declaration for Public Assistance. The State of Utah provided additional assistance during the initial response period by sending a PA officer to assist the IEMD staff located at the DFO in Davenport. On July 21, 1993, the initial declaration was received for 10 counties, two more PA officers were added to the program, along with an individual to assist with administrative support. The three PA officers conducted applicant briefings for sixty counties that were declared or anticipated to be added to the declaration.

The state PA staff of five was required to maintain a presence at three locations; Davenport, West Des Moines, and the State EOC. This situation of multiple sites required much extra effort to coordinate the Public Assistance activities. During the month of August, one of the primary objectives for the state was to gather damage information, for the purpose of adding counties to the PA declaration. At this time two more officers were added to the program along with an administrative support assistant. The program was located in the Disaster Field Office in Davenport. During the first week of September all PA functions were consolidated at the DFO in downtown Des Moines, and in a position to begin the damage survey report (DSR) approval process. By this time, the state had five public assistance officers, six program support/fiscal personnel located at the Disaster Field Office. In addition, the fiscal department at IEMD increased from one to five.

There was a significant amount of effort made to notify potential applicants of available assistance. Radio, TV, and print media greatly assisted this effort. Over 1100 applicants have responded and been entered into the Public Assistance system.

It was recognized that the previous spread sheet based system was inadequate to administer the magnitude of this disaster. It was clear that the system would need to be upgraded to a database system. A FEMA program specialist and a State PA officer produced the first edition of the DBASE III version just prior to the relocation to Des Moines. Computer equipment capable of supporting a Local Area Network was requested to connect the state's equipment for centralized record keeping, and increase the efficiency and accuracy of application processing. In addition, the state received a donated network operating system from outside the state.

One significant factor in the PA DSR approval process development was the IEMD's commitment to quality control. This division required that checks and balances be in place to avoid duplication of payments, errors, or overlooking eligible applicants entirely. The PA staff needed two weeks to develop and implement a quality DSR approval process to handle over 9000 DSRs totaling over 40 million dollars.

There was a concern regarding the quick dispersal of FEMA funds to the applicant. There were numerous discussions regarding the relaxation of previously established quality control guidelines to expedite the money to the applicants. A complete application was required from each applicant prior to

the disbursement of funds. It is important to note that the inspection process continued for all applicants without regard to the completeness of their applications. Only the disbursement of funds was contingent on the applicants completing their application.

A Congressional request was made for the General Accounting Office (GAO) to conduct an investigation to determine why there were delays in payment of federal funds to local communities in Iowa and other states, and the steps to be taken to promptly facilitate their distribution.

In 1994, the GAO conducted a preliminary audit in Iowa and Missouri. The following were their observations:

Distribution of FEMA PA grants:	44% of projects funded in less than 30 days		
0-14 days	8%	61-90 days	12%
15-30 days	36%	91-120 days	5%
31-60 days	37%	over 120 days	2%

- * Many of the applicants did not attend the PA briefings
- * State inspectors were not at all survey sites
- * In late summer-early fall the state became more aggressive in the collection of the required documentation
- * Little time between FEMA and check to applicant

On September 27, 1993 the President authorized an amendment for DR-0996-IA to allocate federal funds for Public Assistance at 90% of total eligible cost, except for direct federal assisted cost for emergency authorized at 100% funding. The transition from the funding of 75% to 90% allocation was very difficult. The following were some of the obstacles:

- * The FEMA computer system was not changed for several weeks after the decision had been made to increase the federal funding percentage.
- * Since the initial allocation was made at 75%, the PA office had to go back through the previously written payments and rewrite an additional 15% payment on previous files.
- * The final allocation to convert the supplements that were previously written at 75% to 90% was received in a piece-meal fashion and long after the decision to make the change.
- * The pay requesting procedure was prolonged since the 90% payments were being processed as well as the 15% payments; this added to the work load to ensure accuracy.

* In addition, the office had to place another mailing to ensure the applicants had the proper paperwork to reflect the fact that the grant percentage had been changed.

FEMD procured a \$425,000 grant from FEMA to develop a Geographic Information System (GIS) multi-

layered database that will allow federal, state, & local officials access to consolidated, geo-referenced information and maps to include an inventory of levees, soils, wetlands, floodplains, greenspaces, river gauges, roads, bridges, utilities, hospitals, schools, dams, and railroads. However, two pieces are missing from this project that would make it a national prototype. First, maintenance to keep the database current and useful requires funding to procure qualified staff in the long term picture. Secondly, IEMD is continuing to convince FEMA, DOD, NOAA, and TVA to provide real-time digital elevation data that is available through their existing staff and equipment resources.

IEMD entered into an agreement with FEMA to fund staff from National Park Service (NPS) to assist state and local officials with addressing the perils of certain types of development in a floodplain. In cases when 404 Hazard Mitigation Program Grants (HMPG) are used to buy-out and remove development from a floodplain which creates greenspace, future development within these areas will not be eligible for disaster assistance monies when damages are caused by flooding, a tornado, or other similar catastrophe.

HAZARD MITIGATION GRANT PROGRAM

Program Overview

The Hazard Mitigation Grant Program is designed to reduce or permanently eliminate the long term risk to human life and/or property from natural hazards. Mitigation measures are identified following the evaluation of natural hazards that have resulted in a Presidential Declared Disaster. Pursuant to the guidance set forth by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, FEMA makes Hazard Mitigation Grant Program funds available to the state in accordance with the following federal regulations:

* The total federal funds provided shall not exceed fifteen percent of the total estimated federal grant assistance (excluding administrative monies) provided under the Stafford Act. Grant assistance is available under Sections 403, 406, 407, 408, 410, 411, and 416 of the Stafford Act.

* The federal funds provided will be based on the cost sharing provisions outlined in the FEMA-State Agreement. The federal share of Hazard Mitigation projects may not exceed 75% of the cost for those projects.

The non-federal share of projects may exceed the federal share. The excess may be provided from a combination of state, local, or private funding sources. However, Section 404 funds cannot be used as a substitute or replacement to fund projects or programs that are available under other federal authorities, except for circumstances of extraordinary threat, nor can they be used as a match for other federal funds. The Emergency Management Division is the grantee for the HMPG within the State of Iowa. Subgrantees may include: state agencies, local units of government, and private non-profit organizations, and Indian Tribes.

Hazard mitigation measures must meet the following minimal criteria:

* May be structural or nonstructural measures for public, private non-profit, or private property, if sponsored by a public entity.

- * Must be cost effective and environmentally compatible.
- * Must not duplicate other federal, state, or local mitigation actions.

Eligible projects that might potentially benefit from Hazard Mitigation Grant Program funds include, acquisition or relocation of homes, retrofitting facilities, construction activities that will result in protection from hazards, structural hazard control or protection projects, and development or improvement of warning systems.

Mitigation Actions from Previous Disaster Declarations

The most important aspect of the floods, from a mitigation perspective, was the changes that were legislated and approved at the federal level, to increase both the funds generated for the Hazard Mitigation Grant Program and the project by project cost share. The legislation, known as the Hazard Mitigation and Relocation Assistance Act of 1993 amended the percentage of Public Assistance from 10% of permanent restorative work to 15% of total Stafford Act eligible assistance (except administrative costs). This modification to the funding formula increased the amount of funds available for mitigation grants from an estimate of \$3.6 million in late August of 1993 to a projected total of \$31 million in mid April of 1994. Additionally, the Stafford Act revision increased FEMA's portion of the cost share for projects from 50% to 75%, which created a more beneficial financial arrangement for successful applicants.

Hazard Mitigation Grant Program Administration

The state, at any time a Presidential Disaster occurs, must revisit and revise both the Hazard Mitigation Administrative Plan (Section 409 plan) as well as the Hazard Mitigation Grant Program Administrative Plan (Section 404 plan). Due in large part to the frequency of Presidential Disaster Declarations in Iowa over the past three to four years, both of these plans were in need of major renovation.

The Section 404 Plan has been revised, updated and approved by FEMA. This plan sets forth the specific administrative requirements that both the state and applicants who have been awarded grant funds must follow with regard to financial accounting, individual project administration, disbursement of eligible grant funds and general regulatory guidance for all aspects of the grant program administration. This plan, in a current and approved condition, is mandatory before Hazard Mitigation Grant Program funds can be either approved or obligated by FEMA.

Important components of the administration of the Hazard Mitigation Grant Program are the staff members assigned to manage the program. In past disasters applicants have been few in number and required minimal assistance in developing applications for funds as well as projects. With every county in the state eligible for mitigation grants, determining the staff requirements early in the disaster was a difficult task. Aligned with the early estimate of \$3.6 million was a rather minor staff requirement for program administration. However, a larger staff of hazard mitigation coordinators was mandated by a nearly ten fold increase in available funds. Measured personnel requirements have resulted in a staff of four hazard mitigation coordinators under the supervision of the hazard mitigation officer. Responsible for ensuring that all applications meet the state criteria for project selection, the coordinators have provided assistance to applicants by developing informative applications with clearly defined project goals and outcomes.

Assisting the applicants at the local level are representatives of the various councils of governments (COGs) from around the state. Regional planners employed by the COGs have proved an invaluable resource to the communities that might not have qualified grant writers on staff to prepare applications for mitigation grants. By attending bi-weekly meetings held in Des Moines and targeted at providing a forum for discussion of a host of flood recovery questions, hazard mitigation coordinators have been provided a direct link with the applicant communities served by the COGs. This process, initially served up as an experiment, has evolved with some degree of growing pains. There was an intense effort made to familiarize "new" members of the mitigation community with all of the appropriate regulatory documentation required to effectively develop applications for funds. To the credit of all who have been involved this interaction has resulted in the generation of 72 requests for Hazard Mitigation Grant Funds, more than twice the total amount of applications received in six previous disaster declarations. This link with the COGs was achieved in large part through contacts established with the State Public Policy Group as well as the Iowa Department of Economic Development.

The Section 409 Plan is the states' overall mitigation plan that addresses the variety of disasters that might impact either the people or the infrastructure of the state. This plan helps to identify known as well as suspected hazards and should be prepared from a realistic perspective prior to disaster occurrence. However, the very nature of disasters makes them difficult to both predict and prepare for. Subsequently, the Section 409 Plan is updated immediately following a Presidential Disaster Declaration while the specific hazards, and methods to either eliminate them or reduce their effects, are still fresh in the minds of the affected people and communities. Iowa's Section 409 Plan had endured a great deal of stress with the number of disasters that the state has endured within the last 5 years. The response and recovery phases of disaster preparedness seemed to have only temporarily subsided prior to an additional declaration being made. While the nature of the risk, acknowledgement of the threat and awareness of the need were at the forefront of the minds of IEMD staff, efforts to write about the need to identify and plan to reduce risk and prevent disaster related damages were not immediate priorities.

Given the widespread impact the floods had on the entire state, revision of the Section 409 Plan was identified as a monumental task. IEMD engaged the services of the State Public Policy Group (SPPG) in an effort to develop a "model" Hazard Mitigation Plan that will benefit all Iowans. Given the task of hazard identification, plan conceptualization, development and implementation, SPPG set a course involving a wide variety of state and local officials in the identification and planning process. Focus groups are being organized to assist with plan development discussions. A core group composed of members of the larger focus groups will provide guidance related to specific development of the plan as it evolves. The plan will be revised and implemented by July 15, 1994 and is expected to carefully address all of the hazards and appropriate mitigation efforts associated with life in Iowa.

Milestones

As a result of this disaster, FEMA and state hazard mitigation personnel will administer approximately \$31 million to reduce hazards associated with flooding. That effort is primarily oriented at elevation, relocation or acquisition of flood prone homes throughout Iowa. A variety of funding sources have been brought to bear to finance mitigation measures. Hazard Mitigation Grant Program funds are regularly being matched with Community Development Block Grant Funds to finance projects for applicant communities.

Outreach efforts and other means of "potential" applicant notification have resulted in the receipt of 72 completed applications and an additional 52 expressions of interest for Hazard Mitigation Grant Program funds. The completed applications account for over \$50 million of total mitigation expenditures. Project emphasis is oriented primarily at various type of housing issues. The most important aspect of Iowa's Hazard Mitigation revolves around moving people who presently reside on the "Hoodplain" to areas where they are less likely to suffer repeated damages caused by flooding. To that end, 37 applicants, representing approximately 1000 homes have requested financial assistance from the Hazard Mitigation Grant Program. Elevating, purchase and demolition or relocating homes to higher ground will account for \$24 million in hazard mitigation expenditures for a total project cost of \$32 million.

Iowa set the pace, nationally, with regard to plans to assist homeowners "voluntarily" leave floodplains. The City of Des Moines was the first community in the nine midwestern states affected by 1993's massive flooding to develop, implement and purchase a flood damaged property. That historic purchase, December 21, 1993, marked the midpoint of a property acquisition policy development effort between FEMA and Iowa Hazard Mitigation Staff that culminated in establishing "new national policy" for the purchase of flood damaged properties. A conference held in Davenport and designed to assist applicants from Iowa and surrounding states become familiar with property acquisition processes solidified, in late January, the state's effort to obtain FEMA's approval of the procedures.

IV. AREAS OF EXCELLENCE

- A. Execution of the State Multi-Hazard Plan in response to the floods of 1993.
- B. Organization of the Disaster Field Office and Disaster Application Centers.
- C. Coordination of state agencies with the federal and local agencies during the 24-hour operation of the State Emergency Operations Center and securing resources for affected jurisdictions.
- D. Funding for various programs are estimated as follows:

<u>Program (As of April 30, 1994)</u>	<u>Millions</u>
Public Assistance Program	100
Federal Response	20
Individual Assistance Program	42
Disaster Unemployment Assistance	38
Crisis Counseling	4
Small Business Administration (loans)*	102
Community Development Block Grants	107
Agriculture Programs	650
Economic Development Agency	60
Unmet Needs	11

404 (Hazard Mitigation)
Corps of Engineers
Soil Conservation Service
*Loans, not grants

31
7
3

TOTAL

\$1,175,000,000

V. PROBLEMS/ISSUES

A. Items of concern in State EOC operations:

- * Inadequate space in the State EOC. This problem will be solved with the newly constructed State Area Command (STARC) facility. A new state of the art EOC has been included as a major portion of this facility.
- * The control of information flowing through the EOC was also considered a problem. This also should be resolved with the new EOC in conjunction with redefining the process at the EOC in the Hoover State Office Building.
 - * Scheduling of EOC personnel should be held to eight hour shifts to avoid burn out.
 - * Scheduling and development of situation reports by all agencies should be done promptly and maintained.
 - * Continuity with other agencies should be well planned and tested to assure assistance in areas such as clerical for 24-hour work availability. Specific to emergency management, these people should have basic knowledge of emergency management to better facilitate the screening of calls for requests, etc.
 - * Stress the importance of briefings for shift changes.
 - * Continuous and precise agency logs. This is being addressed in the new facility with new and improved message tracking planned.
 - * Assure throughout the event, no matter how long it continues, that public affairs personnel are available 24-hour daily to properly screen media requests.
 - * Do not hesitate calling and accepting qualified state assistance from counterparts in other agencies. Especially states that have experienced similar events.
 - * Design, establish, review and test resource management plans regularly.
 - * Need increased computer capability and improved communications networking for message control and access to key personnel.

B. Areas of concern in Public Assistance management:

- * Public assistance officers were hired on a temporary basis, which required a period of training necessary for effective administration. Exploring the possibility of training full time staff for Public Assistance positions. This would enable staffing to be 100% from the day of the declaration. However, ideally, if FEMA would fund a portion of our Public Assistance positions, this would enable the state to have a pool of trained individuals available on a continuous basis solely dedicated to handling FEMA programs on the state level.

- * County coordinators can aid in applicant outreach and take a pro-active stance with applicants. This includes assisting with PA briefings and preliminary damage assessment tabulation.

- * State inspectors who are part of the FEMA inspection team, should collect required forms from the applicants at the time of the inspection.

- * FEMA should develop a process by which information is down loaded from their program directly into the state database. This would allow the state to utilize time for other areas of public assistance processing and payments.

C. Areas of concern in the Hazard Mitigation Grant Program:

- * Both the Hazard Mitigation Plan (Section 409 Plan) and the Hazard Mitigation Administrative Plan (Section 404 Plan) require regular update, on an annual basis.

- * Project selection criteria and prioritization must be specifically established prior to disaster declaration. Then, early in the disaster, refinement of the criteria and project selection priority can occur correlated with the specific type of disaster.

- * Staff requirements must be regularly evaluated after disaster declaration to ensure that qualified personnel are available to assist with applicant needs. A more informative system for potential applicant notification should be developed.

- * Coordination among all sources of funding improves the ability of the state to both identify and fund mitigation efforts.

- * To be more prepared in the future, regular staff should be trained and permanent assignments made in order to continue Hazard Mitigation in a proactive manner.

- D. The entire disaster assistance application process involves a great deal of cumbersome paperwork for the applicants. Each federal agency should review their requirements.

- E. Ensure that Disaster Field Offices are co-located in the same city with state government operations and reflect the state's requirements when determining location.

- F. Individual departmental attitude toward long-term EOC operations varied greatly compared to that shown during past operational training exercises. This may have been as a result of the length of the response and departmental preparation to endure such a long-term commitment. Suggest, at least once

every two or three years, a fullscale exercise be conducted covering at least a 24-hour duration of time.

G. Representatives from individual agencies sent to represent that agency in the State EOC should be granted the authority by that agency to make appropriate decisions. The need for agency representatives to continually check with higher level management for final decisions is disruptive to EOC operations.

H. The physical presence of a FEMA staff person involved in the Radiological Energy Response Program, is needed to work issues that may arise with respect to the Commercial Nuclear Facility Regulatory Program.

IOWA DEPARTMENT OF PUBLIC HEALTH

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

Statewide Public Health

II. ORGANIZATION DURING EMERGENCY OPERATIONS

The Iowa Department of Public Health (IDPH), in cooperation with other departments, maintained a 24-hour schedule of professional staff at the State Emergency Operations Center (EOC) which responded to the public health needs of affected individuals and organizations.

III. SUMMARY OF EMERGENCY OPERATIONS

A. DISASTER RESPONSE PHASE

The Iowa Department of Public Health submitted a grant application to the Centers for Disease Control and Prevention (CDC) for financial and technical assistance for activities during the emergency response period. A weekly statewide assessment of Iowa's 99 counties was helpful in the identification of public health problems and targeting of resources where needed. During the emergency response period, IDPH received approval by CDC of eight Stafford Disaster Relief Requests. These requests (list follows) were included in the Stafford Act grant to CDC. IDPH received \$742,874 in direct financial support plus \$377,763 in technical support and resources from CDC. The cooperative period is for a 12-month period, beginning October 22, 1993.

1. Assessment teams for identification of public health problems and establishment of appropriate surveillance and evaluation.
2. Additional \$150,000 added to #1 for completion.
3. Augment statewide public health surveillance during emergency phase by implementation of statewide computer system (one per county).
4. Production and distribution of flood-related public health information.
5. Water analysis and sampling at 80 potable water distribution centers and Des Moines water system once recharged. Also allows for evaluation and assistance with monitoring rural wells.
6. Organic chemistry and pesticide analysis plus statewide collection/analysis of private wells to assure safe drinking water and encephalitis surveillance/100 pools statewide.
7. Six-month direct support, vector control analysis, quality of water sampling and analysis, and environmental health assessment.

8. Assignment of Public Health Advisor to assist Iowa Department of Public Health conduct statewide assessment/follow-up of TB patients displaced (residence) by floods.

B. DISASTER RECOVERY PHASE

The IDPH also included within its grant application to CDC a flood recovery response component, and has received \$2,828,460 to support the following activities during the next 12 months.

1. Active Surveillance Activities

- a. Develop an active surveillance program for flood related diseases in counties most affected by the flooding within 45 days of firing the project appointment. Counties will be determined utilizing data collected by the ongoing biweekly county survey and those counties within Iowa's flood plains.
- b. Expand current communicable disease surveillance activities to emergency rooms, outpatient clinics, and laboratories within 90 days of project appointee being hired.
- c. Develop electronic transmittal of surveillance data from 27 hospitals located in the designated area to the Department of Public Health and county health departments simultaneously within nine months of project appointee.

2. Flood Emergency Surveillance Network

- a. Establish a statewide electronic public health communication system linking all county public health agencies and other interested public health agencies to the Iowa Department of Public Health by October 20, 1994.
- b. Training shall be completed by October 30, 1993 for all the users of the Department's electronic communication system so that each user can respond within established time frames to assure that all reports arrive at the Department.
- c. The Iowa Department of Public Health shall expand the usage of the public health electronic communication system throughout the state and integrate all flood related public health programs by the end of October 1994.

3. Fluoridation Repair Activities

Flood related activities significantly interrupted Iowa's on-site inspection of each community fluoridation system. The Department will regain currency on its inspection cycle for fluoridation system in Iowa during the next 12 month period.

4. Mosquito - Encephalitis Virus Surveillance Prevention of the transmission of mosquito-borne viruses to citizens of Iowa during the 1994 arbovirus season will be accomplished by:

- a. A contract with Iowa State University (ISU) will be finalized by May 1994. Adult mosquito monitoring will be done by operating three New Jersey light traps in eight cities in Iowa, specifically: Davenport, Dubuque, Ames, Des Moines, Waterloo, Cedar Rapids, Council Bluffs and Sioux City.

catches will be processed and evaluated by the Iowa State University contractor with results promptly forwarded to the Iowa Department of Public Health.

b. The contractor will establish an ongoing collection of mosquitoes using CO2 baited CDC traps. Pooled mosquitoes will be submitted to a second contractor, the University Hygienic Laboratory (UHL) for virus isolation or viral identification techniques e.g. antigen capture. The distribution of the trapping network will be precisely recorded for analysis and to ensure that no large significant area of the state is omitted from mosquito collection and assessment. Areas of historic flooding and large populations will be given priority in surveys.

c. The contractor will monitor arbovirus in avian host species through emplacement of nine sentinel flocks of chickens in diverse but representative regions of Iowa. Flocks will consist of 12 young seronegative birds that will be identified by bands and bled weekly for SLE/WEE serology. Any seroconversion will be noted, reported and called for intensified mosquito trapping in the area.

d. Beginning May 1994, accumulated data from surveillance studies and human/equme morbidity figures will be reviewed and summarized to include conclusions and recommendations if any, to address mosquito problems. These interim reports will be entered on the WONDER system for all local health departments, statewide interest groups, CDC, other states, and national groups.

e. The contractor and the IDPH will conduct a spring briefing at Iowa Public Health Association, May 4, 1994 on the nature of potential mosquito problems and options for control measures. Community control techniques, area control measures, and statewide emergency spraying will be reviewed. Special training in this area will be scheduled through the Agriculture Department.

Evaluation of stated objective: Successful realization of these objectives will be prevention of any cases of human SLE-WEE in the state of Iowa. Interim success will be defined as occurrence of human cases after risk of virus transmission has been identified and publicized coupled with advisories to protect citizens plus initiation of community abatement measures.

5. Public Information and Communication

Inform, educate and motivate target segments by implementing a multi-faceted informational campaign that responds to current and anticipated public health information needs associated with the floods of 1993 in Iowa.

6. Hypertension and Stress

50% of the population identified as at risk for flood-related hypertension at initial screening programs will be referred for further evaluation by a health professional by the end of the grant year.

7. Contamination and Prevention

a. Address the need for childhood lead poisoning prevention activities in flooded areas and increase Iowa's total program efforts by making two to four awards of one-time funding to local health departments in areas impacted by flooding to provide Childhood Lead Poisoning Prevention Program (CLPPP) activities in their service areas.

b. Respond to the need for continued technical assistance to local health departments and to individual homeowners in evaluating flood damaged private wells and septic systems.

c. Provide training to local boards of health and county sanitarians to improve their capabilities to respond to emergencies involving damage to private wells and septic systems in the future.

8. Water Wells Surveillance

To analyze private water well and vector specimen to determine risk of disease to Iowans.

a. Arbovirus Surveillance -- Specimens will be sent to the University of Iowa Hygienic Laboratory for mosquito and arbovirus analysis throughout the year. Reports will be forwarded to the Department for monitoring and action if indicated.

b. Private Water Surveillance -- Specimens will be sent to the University of Iowa Hygienic Laboratory for analysis of water collected from private wells throughout the year. Test results will be sent to the site collected at as well as IDPH. The department will monitor results statewide to determine problem areas and work with local health agencies to correct the problem.

IV. AREAS OF EXCELLENCE

Statewide public health activities that include disease surveillance, vector surveillance, environmental concerns related to private water, sewage and medical, and public health information.

The ability to react to potential public health problems immediately and to work with the different state departments and local health agencies.

V. PROBLEMS/ISSUES

The roles and responsibilities of FEMA and the lead agencies under the Stafford Act protocol should be clarified. During the Iowa response, officials from the US Department of Health and Human Services assessed the flood impact on Iowa substance abuse agencies and recommended that 27 counselors be assigned to Iowa. The US Veterans Administration had these professionals available. However, FEMA involvement effectively cancelled this federal recommendation. First, the regional FEMA coordinator said substance abuse was not a Stafford eligible service. This opinion was reversed on appeal to Washington. Then, the assignment was bureaucratically delayed until the emergency nature of the service was effectively over.

In another instance, at a St. Louis meeting of the nine affected states, the FEMA representative challenged an Illinois health professional on the need for additional funding for disease surveillance, suggesting that surveillance was a routine activity of health agencies and consequently should not be covered. It was pointed out that increased surveillance is specifically approved in the Federal Emergency Response Plan. However, the need for such a rebuttal demonstrates that some FEMA officials viewed themselves as overall program directors rather than emergency response facilitators.

FEMA's role should be the assurance of an appropriate federal response. This would include providing for an appropriate assessment, identification of resources, and assurance that audit procedures are implemented. FEMA should not presume to conduct assessments within the responsibilities of the various ESF lead agencies. For example, FEMA should ensure appropriate Department of Health and Human Services involvement in ESF #8 activities. However, FEMA should not overrule programmatic recommendations of HHS to the states.

IOWA DEPARTMENT OF PUBLIC SAFETY

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

Law enforcement and coordination of emergency services, including staffing of Emergency Operations Center, security, traffic enforcement and routing, provision of some emergency transportation, code enforcement, and anti-arson and explosives efforts.

II. ORGANIZATION DURING EMERGENCY OPERATIONS

Normal departmental organization was used throughout the disaster.

III. SUMMARY OF EMERGENCY OPERATIONS

Management personnel assigned to the Emergency Operations Center.

Identified flooded roads and provided and coordinated traffic control in areas requiring detours.

State Patrol communications personnel provided continuous radio and telephone links between and among officers and officials working on flood response and recovery.

Personnel assisted in sandbagging and water distribution operations.

Uniformed peace officers (state troopers) provided security at food stamp distribution sites.

Fire Marshal personnel responded to a report of an explosive device and successfully disarmed the device found on a levee near Clinton.

Inspections of state buildings in the Des Moines area, including the Capitol Complex, to reduce fire hazards and assist with evacuation plans, were carried out while water service was out.

Fire Marshal personnel identified fire departments which suffered flood-related damage and assisted with referrals for loaned and replacement equipment.

Prepared news releases and responded to inquiries from the public regarding flood-related electrical and fire hazards from electrical and gas appliances, and occupancy of unsprinklered and unairconditioned buildings without toilet facilities.

IV. AREAS OF EXCELLENCE

Assignment of management personnel to the Emergency Operations Center went smoothly.

Innovative solutions to some problems were devised. For example, yellow "Police Line Do Not Cross" tape was utilized to close flooded roads or ramps until Department of Transportation personnel could arrive with signs and barricades. In another case, a cellular telephone was used when a communications center went out of service because of flooding until a communications van arrived.

Generally, cooperation among agencies working on flood response and recovery was noteworthy for willingness to be flexible in order to accomplish response and recovery objectives. Also exceptional was the willingness of employees of various agencies to respond and to work long hours, often away from home, in order to meet the various challenges faced. Volunteer fire departments provided assistance with traffic control on flooded roads.

V. PROBLEMS/ISSUES

Insufficient alternate routes were available for traffic diverted from flooded highways, particularly I-380 between Iowa City and Cedar Rapids.

State Patrol Post phone lines were saturated at times with calls requesting information about road conditions and other flood-related matters, in spite of intensive media coverage of these issues and a constant stream of information being provided to the media.

Uniform recordkeeping for personnel and other data related to the emergency was needed.

Some lack of coordination and agreement between the State Patrol and DOT on need for road closings and efforts at preventative flood control was noted. Also, some delays were noted on selection of detour routes after road closings.

A lack of available signage for alternate routes for closed roads was noted.

A review of staffing needs of the Emergency Operations Center is needed.

Cellular telephones should be provided as a backup means of communications in the event that radio and telephone communications facilities become flooded or lose power for lengthy periods of time. This was done in some cases and should be a regular feature of disaster response.

In view of personnel demands on peace officers, consideration should be given to providing security at locations such as food stamp distribution sites with personnel other than state troopers.

IOWA DEPARTMENT OF REVENUE AND FINANCE

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY.

State Tax Administration

State Accounting functions, specifically involved were payment of claims.

II. ORGANIZATION DURING EMERGENCY OPERATIONS.

None beyond normal operating procedures.

III. SUMMARY OF EMERGENCY OPERATIONS.

Taxpayer Services assisted in the following ways:

- * Provided volunteers who helped other agencies as needed in flood assistance.
- * Provided phone and walk-in assistance for tax matters and general questions.
- * Participated in the "Unmet Needs Committee" as a resource. Attended 3 meetings of the group.
- * Prepared a tax information flyer.
- * Coordinated responses with the IRS as part of partnership.
- * Sent information to the ISCPA, Soybean Association, and H & R Block for their newsletters.
- * Provided Taxpayer Service Specialists at FEMA sites and other meetings.
- * Responded to media requests for information.
- * Included flood tax information in various newsletters and ERIN.
- * Included flood information on cover and instructions of 1993 tax booklets.
- * Sent out press release of department flood provisions.

The department also provided numerous employees for water distribution activities during the flood crisis. Additionally, one full-time employee was loaned to the Department of Public Defense for an unspecified period to assist in recovery efforts.

Considerable time was spent by a management analyst in our Information and Management Services Division in developing an understanding of the sources of information that would be available for the analysis of the impact and subsequently, the actual estimate of the flood impact on state tax revenues. This work will continue throughout the year as more information becomes available.

The Accounting Bureau has processed all flood claims within one day since a peak workload on November 5th. The Bureau set up and processed a fund for acceptance of donated cash and checks in coordination with the Governor's Office.

IV. AREAS OF EXCELLENCE

Received numerous calls/claims from departments wanting to purchase flood related supplies. Received excellent service/communication from the Department of General Services-Property Management Division in determining the allowability of these expenses.

V. PROBLEMS/ISSUES

- * Funding problems in the early stages of repayment.
- * Coordination of prompt payment issue.
- * Timely release of warrants.
- * Lack of internal coordination within DHS. Received calls from throughout the department on the treatment of contractual services even though one person in DHS had been designated to deal with the issue. Referred the calls to the internal DHS coordinator.

STATE BOARD OF REGENTS

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

The State Board of Regents is authorized under Iowa Code to manage and control property belonging to the Regent institutions -- the University of Iowa, Iowa State University, the University of Northern Iowa, Iowa School for the Deaf, and the Iowa Braille and Sight Saving School.

The State Hygienic Laboratory, a part of the University of Iowa, is responsible for providing laboratory, diagnostic and surveillance services to determine health hazards under the Iowa Emergency Multi-Hazard Plan. A separate report regarding response and recovery activities of the State Hygienic Laboratory is attached.

II. ORGANIZATION DURING EMERGENCY OPERATIONS

At the University of Iowa and Iowa State University formal emergency and disaster response programs were activated and emergency operations centers (EOC) were established. Key administrators and personnel were identified; they held daily meetings. These members were responsible for centralized coordinating, monitoring and directing of their subordinate organizations during the emergency.

The University of Iowa activated its Emergency Preparedness Plan, assigned key personnel to the Administrative Response Team, and established an Emergency Operations Center in Jessup Hall. Activity groups were responsible for issues related to accessibility, evacuation and relocation, safety and health, transportation, property protection, utility operations, public relations, and various recovery activities.

Iowa State University established an Operations Command Center at its Public Safety dispatch office. It was staffed by directors of key departments.

At the University of Northern Iowa, the heavy rains of July 8, 1993 which resulted in large amounts of surface runoff, were handled by the university staff on duty at the time; no special emergency organization was necessary. At the Iowa School for the Deaf and the Iowa Braille and Sight Saving School storm damage cleanup (such as downed trees) was handled by maintenance crews.

III. SUMMARY OF EMERGENCY OPERATIONS

A. DISASTER RESPONSE PHASE

Communication

Daily or frequent communication was maintained by the universities with local authorities. The University of Iowa held daily conference calls with the US Army Corps of Engineers regarding conditions at the Coralville Dam. Iowa State University maintained close communication with the City of Ames.

Evacuation/Rescue/Security Operations

Emergency evacuation and rescue assistance, building security/monitoring, and pedestrian and traffic control were provided by the institutions' departments of public safety.

Response and Prevention

Maintenance personnel and other institutional staff performed various tasks, including sandbagging (emergency and preventive) around susceptible facilities, installing emergency pumps and generators, building temporary earthen dikes, and moving property to higher ground.

As needed, staff assignments were reorganized to support emergency efforts.

At the University of Iowa a contingency plan for prioritizing water use was developed. It was to be used if water supplies were severely restricted.

At Iowa State University river readings were taken every 15 minutes and relayed to the EOC. Weather and rainfall amounts were monitored to forecast impact.

Activities were relocated, rescheduled or cancelled on a case-by-case basis.

B. DISASTER RECOVERY PHASE

Damage assessment and operational recovery meetings were held frequently to determine priorities, labor, and material needs and to coordinate assignments. Personnel at the institutions' physical plants, facilities planning departments, residence systems and other departments participated in recovery teams. They determined priorities, or facilitated damage repair and safe re-occupancy based on operating and academic priorities.

IV. AREAS OF EXCELLENCE

The response to the flood disaster at each of the institutions was truly exceptional. The cooperation, planning, and response efforts by all involved on each campus is indicative of the exceptional dedication and commitment of the universities' staff. They responded to immediate events as well as to the extended crises, working long hours in adverse conditions. The cooperation and support of the employees' union should also be recognized.

At the University of Iowa, a creative alternative Water Plant Intake System was developed to ensure a continuing supply of water. The University also established a centralized "Hot Line" phone bank to facilitate communication regarding flood conditions, classes and activity schedules, and to answer or refer specific questions from students, parents, staff, media and the general public.

At Iowa State University, the cooperation of departments and among individuals at different management levels resulted in creative and workable solutions to problems. Cooperation with the City of Ames was also cited. There was a sharing of supplies and resources during the disaster.

V. PROBLEMS/ISSUES

Iowa State University - Communications

Story County lacks a single, emergency radio or emergency communications system for centralized use by local authorities. Establishment of an 800 trunked communication radio system is recommended.

HYGIENIC LABORATORY

FLOOD DISASTER AFTER ACTION REPORT

The Des Moines Division of the Hygienic Laboratory has been located in the State Capitol Complex since 1950. This location, over 100 miles from the laboratory headquarters in Iowa City, provides service to state agencies such as the Iowa Department of Public Health, Iowa Department of Natural Resources (IDNR), and Iowa Bureau of Labor. In addition, this location's proximity to central and western Iowa enhances coverage of the entire state by the state laboratory.

The Des Moines Laboratory proved to be a vital force in the flood recovery efforts in the Des Moines area during the tragic flooding in July 1993. The UHL's staff worked closely with the Des Moines Water Works (DMWW) and the IDNR to bring the Des Moines public water supply system back on line as a safe source of drinking water in a remarkably short period of time.

While DMWW distribution staff began to put together their plans for filling and flushing the system, laboratory staff from the Water Works and the Hygienic Laboratory began preparations for the initial sampling of the system, referred to as Phase I. The city had been divided into a grid of 98 one mile squares. From each of these squares four samples for bacterial analyses, one sample for turbidity analysis, and one sample for chlorine residual were to be collected. In addition, nine grids were selected at random to be sampled for the presence of organics.

With the Phase I monitoring out of the way and no compelling evidence of serious contamination of the system, the UHL began thinking about Phase II monitoring. This monitoring scheme was designed to determine whether or not the system could be used for drinking water.

The City of Des Moines, like all other public drinking water systems, had a routine drinking water sampling network in place. This is a series of locations where routine samples are periodically collected. The locations were representative of the distribution system within five quadrant areas of the city. In total, 142 locations make up the network. Staff from the DMWW together with UHL and IDNR decided that samples should be collected from each of these locations, and in addition, half again as many samples should be collected from dead ends within each of the quadrants. Two samples would be collected at each sampling point: one for bacterial analysis and one for chlorine residual. To get the job done, IDNR brought staff into Des Moines from other regions of the state. IDNR staff together with UHL staff fanned across the city to collect samples.

While the Des Moines Water Works was flooded, the Hygienic Laboratory received numerous samples for drinking water analysis. These samples came from a variety of sources including, hospitals, military reverse osmosis units, private wells, municipal water supplies and private businesses.

The Hygienic Laboratory received its first hospital samples on July 12, the day after the Des Moines Waterworks Plant was flooded. Military reverse osmosis water purification units (ROWPU) set up at the hospitals began sending samples to the Hygienic Laboratory on July 13th.

To check this water the military collected samples for drinking water bacterial analysis from raw water and water following the treatment process. The University Hygienic Laboratory analyzed these samples using the recently approved Colilert Presence/Absence methods and reported the results back to the military units and the Iowa Department of Public Health the following day. Water was pumped from holding bags/bladders into the hospitals where samples for drinking water bacterial analysis were taken by the hospital staff at faucets and drinking fountains. This process ensured that the hospital water system was not contaminated. This water was used for drinking purposes once it was found to be free of coliform bacteria for a 2 to 3 day period, as determined by the Iowa Department of Public Health.

Seven hundred forty six samples were received at the Des Moines Branch Laboratory from hospitals during the drinking water crisis. During this same period, the military delivered an additional 88 samples.

While UHL staff worked on the City of Des Moines, the laboratory's Limnology staff was in the field investigating water quality in Iowa's surface waters. Concern about nitrate and pesticide contamination in surface waters used for emergency sources of drinking water prompted Limnology staff to collect water samples from several rivers (Raccoon River, Des Moines River, Skunk River, Cedar River, and Iowa River). In response to concerns over the deposition of an oily substance left on vegetation by receding floodwater near the UHL's Neonatal Screening Laboratory, Limnology staff also collected vegetation samples.

To assess the residual impact of the flood on water quality across the state, the majority of the routine monthly surface water monitoring sites were sampled (after the flood) in the latter part of July and again in August. The quarterly surface water quality monitoring sites were also sampled as soon as possible after the flood and samples were all collected by early August. In addition to the monthly and quarterly sampling sites, samples were collected downstream of selected urban areas (Ames, Anamosa, Cedar Rapids, Cherokee, Council Bluffs, Davenport, Denison, Hamburg, Keokuk, and Ottumwa) and analyzed for the common agricultural herbicides (Atrazine, Bladex, Dual, Lasso, Senco, Treflan, and Sutan), fecal coliform bacteria and other common water quality analytes (i.e. c-BOD, DO, pH, NH₃-N etc.).

In an effort to determine if flood waters affected other water supplies in the state, samples were collected from 3 of the 15 water supply lakes/reservoirs that were studied during the winter of 1993. Samples of raw and finished water were collected from Big Spirit Lake, Twelve Mile Lake, and Fairfield reservoirs No 1 and 2.

The swollen Des Moines River reached to within inches of the back door at our Neonatal Screening Laboratory located a few blocks from the Capitol Complex. A late night sandbagging effort spared the Neonatal Screening Laboratory. The threat of additional rain and overloaded storm sewers challenged the continued operations of this laboratory. Flooded streets permitted only limited access to the laboratory. Empty oil and solvent barrels from a nearby industrial area floated aimlessly through the streets, causing the evacuation of the Neonatal Laboratory on two occasions due to toxic fumes.

Our operations were vital to the recovering community as we were the only fully operational public health laboratory in the immediate area. We were expected to test the drinking water being delivered to the area, test the hospital water treatment systems during this crisis and provide the Des Moines Water Plant Laboratory a place to perform laboratory testing as the system began to recover. Daily laboratory analysis was necessary to insure the military water treatment units were providing usable water. Private well owners, flood processing facilities, nursing homes and smaller public water systems that needed

laboratory services were provided by the UHL. We also provided considerable professional advice and public information to the surrounding communities through interviews, open meetings and technical literature.

In order to maintain operational facilities, several plans initiated on July 12th. Testing media, gallons of distilled water and other resupply items were transported daily from our laboratory in Iowa City. In addition, several staff members from the Iowa City laboratory made daily treks to assist the Des Moines laboratory with new additional tasks. This resupply effort was challenged several times over the next several days as road closings and flood recovery construction often extended a normal two hour trip into a full day of travel.

Despite the primitive working conditions and the increased work load, the Des Moines laboratory staff continued to provide testing services to our clients. Restrictions were placed on the use of electricity for several days resulting in only essential use. Purchased compressed air tanks and portable vacuum pumps were used until these services were restored. In spite of everything, the UHL remained fully operational and more than met the needs of Iowans during the crisis.

IOWA STATE UNIVERSITY EXTENSION

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

ISUE provided initial information and needs assessments. Information and education are also being provided for long term recovery. Topics Extension handled initially included: safety, coordination (with other agencies), and clean-up facts. Current education/information includes financial concerns, stress management, production agriculture, and planning for individuals, businesses and communities.

II. ORGANIZATION DURING EMERGENCY OPERATIONS

ISUE did not need to make organizational changes to respond. ISUE has offices and staff in every county as well as staff at Iowa State University. All staff provided information/education to media and to individuals. The Iowa Concern Hotline provided a single 800 number to help people learn about disaster recovery agencies and their programs. The hotline also provided extension information/education and stress counseling and referrals. Extension's existing communications system (computer network, weekly mailings to all counties) gets information out across the state quickly.

III. SUMMARY OF EMERGENCY OPERATIONS

A. DISASTER RESPONSE PHASE

Extension administrators declared flood response a top priority for all staff. Two formal needs assessment teams were in Lee and Fremont Counties. Staff in each county provided needs assessment information on an on-going basis. Extension staff helped connect victims with needed services. For example, in at least one case, they helped a livestock producer find another producer willing to take his flooded out hogs temporarily. Some staff went door to door in flooded areas distributing clean-up information and safety information (e.g. electrical, structural, food). Much extension information was provided to Iowans through mass media contacts. These media contacts included newspaper, radio, television (regular programming and call-in shows) and satellite uplinks.

B. DISASTER RECOVERY PHASE

Long term education is being provided on stress management, financial management (personal, business, agriculture), production agriculture problems, and community planning issues. This is being done one-on-one, in small groups, in group meetings, with printed materials, with instructional videotapes, with satellite uplinks, and through mass media. Special federal funding has been provided through June 30, 1994 to provide eight coordinating centers for extension recovery efforts. For these centers and the staff attached to them, flood recovery continues to be a top priority. Additional program associates have been hired to provide specific financial and farm management information.

IV. AREAS OF EXCELLENCE

A. TOPIC: Provide fast response.

DISCUSSION: When a natural disaster occurs staff can respond quickly with the needed information because ISSUE has a presence in each county and has information and organizational networks already developed. We can provide help where the disaster occurs.

B. TOPIC: Provide needed information

DISCUSSION: Extension provides factual, specific, appropriate, down-to-earth information that Iowans need. ISSUE has the research-based, unbiased resources of the University to provide.

V. PROBLEMS/ISSUES

A. TOPIC: Coordination of efforts

DISCUSSION: Iowa needs better coordination and awareness of what is possible and what is being provided. Information on how agencies can/do work together is needed (who else is involved and how). This working together appeared to happen better at the local level. There is a perceived lack of coordination beyond the local level.

B. TOPIC: Staff Stress

DISCUSSION: Staff worked a lot of hours. This is an internal issue ISSUE needs to be supportive of staff and recognize that disaster work has top priority and other routine things will not get done for a while.

C. TOPIC: Needs Remaining

DISCUSSION: Many Iowans are still dealing with flood and weather related problems. For example, farmers are discovering what harvest has brought in, some businesses are working with cash flow problems, and some families still have major repairs to do, and possibly no heat. Information and education are still needed.

IOWA COLLEGE STUDENT AID COMMISSION

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

The Iowa College Student Aid Commission (ICSAC) provides a broad range of services to Iowa postsecondary students, parents, and institutions. These services include administration of student financing, information services, research, and program evaluation. During and after the 1993 Iowa floods, staff supported these constituencies by coordinating higher education relief efforts.

Input from Iowa college and university students and financial aid directors called for assistance to students whose incomes were disrupted by the flooding, along with those who suffered substantial property damage. Without assistance, these students likely would have had to delay education plans. Disaster recovery efforts continue at this time and are expected to continue for at least another year, as experience in Florida and Hawaii demonstrated that higher education needs often peak in the school year following most natural disasters.

II. ORGANIZATION DURING EMERGENCY OPERATIONS

The Iowa College Student Aid Commission continued to conduct business during the emergency, and, while the loss of public services seriously impeded productivity, all essential services remained available to constituents. Commission offices also served as an alternate site for the Iowa Student Loan Liquidity Corporation (ISLILC), as its downtown building was closed to all personnel. USA Funds, the Commission's computer service bureau, moved operations to a West Des Moines facility for a short time and continued to supply satisfactory service.

III. SUMMARY OF EMERGENCY OPERATIONS

The ICSAC developed an action plan designed to maximize federal student assistance and expedite delivery of emergency resources to those impacted by the flood. College and university representatives helped develop a formula to estimate the number of students and the amount of assistance which would be needed for Iowa students. Staff then negotiated with the US Department of Education for authority to conduct a statewide survey of need to replace individual campus request letters. The survey was developed with the help of the Commission's Advisory Council for State Student Aid Programs and conducted in September. Copies of the survey instrument and a response summary are available from ICSAC.

Fifty-eight institutions identified needs totalling \$16.6 million for nearly 14,000 students. These results were forwarded to the US Department of Education, and flood relief allocations were announced on October 25. Campus based funds, which had been reverted by institutions throughout the United States, were used to fund the allocations - a method used by the federal Department of Education in recent

hurricane disasters. Iowa institutions received \$11.1 million (53.5 percent) of the total \$20.9 million awarded to institutions in ten states. The availability of the federal aid was announced through a series of news releases sent to Iowa radio stations, newspapers, student newspapers, and financial aid administrators.

ICSAC also sought administrative and regulatory relief for Iowa institutions. Specific requests directed to the US Assistant Secretary of Education for Postsecondary Education included:

- * Request for federal emergency funding for the Supplemental Education Opportunity Grant (SEOG) Program - Granted
- * Waiver of the matching provisions for the SEOG Program - Denied
- * Allowance for broad use of professional judgement in calculating need for students and their families - Granted
- * Waiver of the 30-day delayed disbursement rule for borrowers adversely affected by the flood - Denied
- * Authority to grant interest subsidies to Stafford Loan recipients who, after receiving Unsubsidized Stafford Loans, became eligible for need-based benefits - Granted

The Assistant Secretary responded to these requests on November 1, 1993. A copy of that response, which was distributed to all Iowa financial aid administrators, is available upon request.

A second letter sent to the Assistant Secretary on December 10, 1993 sought additional relief in the following areas:

- * Opportunity to apply for SEOG funds for the 1994-95 school year - Denied
 - * Authority to shift 1993-94 school year allocations among campus-based programs - Federal SEOG to Federal Work-Study - Denied - others clarified.
 - * Authority for Iowa colleges and universities to transfer a portion of 1993-94 school-year allocations from one institution to another - Provided Return and Reallocation Process in Lieu of the Authority.
- * Support for legislation giving authority to use allocations through the 1994-95 school year - Denied
 - * Clarification of carry-forward allowance - Granted
 - * Waiver of all underutilization penalties - Granted

Copies of ICSAC's letter and the response were provided to school financial aid administrators and other officials on January 13, 1994 along with a comprehensive summary of all flood relief activities. Iowa financial aid officials also had an opportunity to discuss these efforts with the Assistant Secretary during an Iowa Communications Network (ICN) workshop conducted in January, 1994.

IV. AREAS OF EXCELLENCE

ICSAC was fortunate to have the complete cooperation of many colleagues and organizations as the flood emergency unfolded, including support and encouragement from Commissioners, the Board of Regents, the Iowa Association of Independent Colleges and Universities, the Iowa Department of Education, and the Commission's Advisory Council. Many Iowa college and university financial aid administrators and other campus officials enhanced the state's success in receiving funds and clarifying regulatory issues by providing rapid responses to inquiries and the need assessment survey. Finally, the US Department of Education was helpful in providing application guidelines, including the statewide survey coordinated by ICSAC, and for issuing financial aid technical assistance in a timely manner.

ICSAC is maintaining communication with the US Department of Education and Iowa institutions and will help facilitate recent federal legislation (amendments to the California earthquake bill advanced by Iowa's congressional delegation and their colleagues from other flood-impacted states) providing carry-over authority and 1994-95 school year assistance. Finally, ICSAC staff will continue to monitor the progress of flood relief efforts while promoting a sufficient federal assistance through the 1994-95 school year.

V. PROBLEMS/ISSUES: None

IOWA DEPARTMENT OF TRANSPORTATION

FLOOD DISASTER AFTER ACTION REPORT

I. AREAS OF RESPONSIBILITY

- * Maintained traffic on the state highway system via detours when necessary to provide a safe, orderly traffic flow.
- * Supported the state response mission with the resources to combat the flooding.
- * Worked closely with the Federal Highway Administration (FHWA) and local authorities to obtain financial assistance for flood damage repairs on city, county, and state routes on the federal-aid highway system.
- * Worked with the Federal Railroad Administration (FRA) and the railroads to obtain financial assistance for repairing railroad damages.
- * Contacted transit agencies, airports, and river terminal facilities to assist them as necessary and provide information about financial assistance. Contacts were also made with the Federal Aviation Administration (FAA) and the Federal Transit Administration (FTA) concerning available assistance programs.

II. ORGANIZATION DURING EMERGENCY OPERATIONS

- * Provided personnel for 24-hour State Emergency Operations Center (SEOC) operations.
- * Assistance from other support personnel was provided from their normal office locations.
- * Some normal departmental operations are set up to handle emergencies 24 hours a day, so those operations were automatically implemented.

III. SUMMARY OF EMERGENCY OPERATIONS

Federal-Aid Highway Emergency Relief (ER) Program

Emergency and permanent repairs for all state, county, and city federal-aid routes in Iowa were declared eligible for ER funding. A 10 percent state match was required on the interstate system, with a 20 percent state or local match on all other systems for permanent restoration work. The immediate work done to save the facility or the restore essential traffic was 100 percent federally funded.

Based on a preliminary damage estimate of approximately \$18.5 million in ER-eligible damages statewide, Iowa was allocated \$5 million in FY-93 and \$11,728,000 in FY-94 ER funds. The final reimbursement to the state and local entities is based on actual restoration costs.

The department initiated action and monitored the progress of repairs at approximately 574 sites. These sites include primary, secondary, and urban roads, and bridges. Since our initial damage estimates, more detailed reviews have resulted in repair cost estimates as follows:

State highway/bridge damages	\$7,800,000
Secondary and urban roadway/bridge damages	\$10,500,000
Railroad crossing damages	\$63,000
State traffic control costs	\$505,000

In addition to statewide highway closures and damages, the department conducted its own flood fight to save facilities and equipment from Squaw Creek flooding in the Ames headquarters complex. In addition, other state and local agencies were collocated with DOT operations in Des Moines so the agencies could continue to function. Ames-based staff transported potable water from Ames to Des Moines and staffed distribution points during the Des Moines Water Works shutdown.

Public assistance was provided at numerous locations throughout the state to aid in local flood fights as part of the state resource commitment. Transportation was also provided for food, sandbags, and medical supplies. The department produced flood maps and provided other similar services as part of the state response.

Railroads

The department requested \$11.9 million in disaster funds through the FRA. The total regional repair costs exceeded the funds allocated by Congress.

The FRA approved \$5,834,307 of Iowa's requests for damage cost reimbursement to the following railroads, with the reimbursement being routed through the department:

Burlington Junction	\$10,000
CRANDIC	\$266,662
Cedar River	\$24,473
Chicago, Central & Pacific	\$651,533
Chicago & North Western	\$1,317,800
Council Bluffs	\$16,000
CP Rail	\$1,740,616
Davenport, Rock Island	\$157,966
Iowa Interstate	\$867,025
Iowa Northern	\$670,307
Iowa Traction	\$34,158
Keokuk Junction	\$77,767

Transit Facilities

Five transit agencies have sustained most of the damage caused by flooding. The initial estimates

were:

Des Moines Metro Transit	\$6,000,000
Ames Transit	\$18,000
Coralville	\$ 5,000
Ottumwa	\$ 4,400
Region 12 (based in Carroll)	\$11,000

Damages were addressed through individual agency applications to FEMA for Public Assistance funding or through insurance.

State of Iowa Recreational Trail System

Flood damage on Iowa's Recreational Trail System is estimated to total \$1,644,873. The cost to individual trails is estimated to be:

Saylorville Trail	\$150,000
Ledges State Park Trails	\$75,000
Other state park trails	\$375,000
City of Des Moines	\$625,000 - \$800,000
Squaw Creek Trail, City of Ames	\$90,675
Harry Cook Nature Trail, City of Osage	\$7,646
Little River Trail, City of Leon	\$1,200
Raccoon River Valley Trail, Dallas & Guthrie Counties	\$7,150
Sauk Rail Trail, Carroll County	\$45,000
Wapsi-Great Western Line, Mitchell County	\$1,264
Cinder Path, Lucas County	\$6,695
Iowa Great Lakes Trail, Dickinson County	\$4,800
Prairie Rail Trail, Story County	\$7,030
Skunk River Greenbelt Trail, Story County	\$750

Damages were addressed through individual agency applications to FEMA Public Assistance funding or through insurance.

IV. AREAS OF EXCELLENCE

Agency-wide, personnel reacted very quickly and professionally to the many emergency situations. They reacted with enthusiasm and without hesitation to provide assistance wherever possible. Some examples include:

* In the Ottumwa and Eddyville area, entire maintenance garage staffs were dispatched to help reinforce or build sections of levees. They worked around the clock to help minimize the impact of the flood damage in these communities.

- * Department forces were very quick to provide materials if those materials would help minimize flood damage. Some of the common materials furnished were sand, snow fence, barricades, and signs.
- * Field maintenance personnel continually monitored highways to adequately provide traffic control and signs for detours and road closures due to water over the road. Flood conditions changed so rapidly that, at times, more than 45 state road closures were in effect simultaneously. Traffic control support was also provided by DOT motor vehicle enforcement officers.
- * The department established four separate bridge crews which were equipped with sounding devices to inspect for underwater stream bed degradation which could undermine bridge support structures. Approximately 200 bridges were quickly inspected to verify the bridges were safe for use by the public.
- * Department personnel were able to set up shifts to staff the EOC 24 hours a day. They established a training schedule and work process to ensure each DOT member staffing the EOC was able to coordinate activities with all divisions of the department.
- * The department was able to furnish damage inspectors to participate in FHWA and FEMA inspections at all times required by both agencies.
- * The department worked with the FHWA to administer ER funds to repair damages from flooding. Through the department's coordination, municipalities and counties received federal funding to repair damaged roadways and bridges on the federal-aid highway system.
- * In a similar manner, the department's Rail and Water Division staff moved quickly to assemble railroad damage estimates and administer the FRA flood recovery program authorized by Congress in the fall of 1993.

V. PROBLEMS/ISSUES

- * The experience gained on administration of such a massive ER program will be used to informally petition the FHWA for clarifications in the federal regulations governing the program.
- * The FEMA field reviews need to be better coordinated well in advance of review dates to enable scheduling of appropriate departmental staff participation. In this situation, the problem was greatly expanded by the demands statewide for concurrent reviews. The DOT met these demands with staff from the nearest field office. However, it was difficult to staff several federal teams working in the same geographic area concurrently while continuing necessary departmental emergency operations.

IOWA FLOOD

DISASTER REPORT

ANNEX B

RECOMMENDATIONS FOR

STATE LEGISLATIVE

AND FEDERAL

CONGRESSIONAL REVIEW

STATE OF IOWA LEGISLATIVE ISSUES

JOB INSURANCE

The Governor announced on August 9th that Iowa employers would not be charged for their job insurance contribution during July through September regarding flood related benefits paid to their laid off workers. Permanent provisions should be made to the Iowa Employment Security Law during future legislative sessions. This legislation should be enacted to permanently benefit employers in future disasters.

EMERGENCY AND ESSENTIAL SERVICES

The Iowa Department of Personnel published guidance to each state government department concerning essential services, staffing, work sites, and employee working conditions. Flexibility regarding employee work hours was recommended, however, time away from work was required to be taken as vacation, compensatory time, or leave without pay. This guidance was implemented in varying ways by each of the departments. As state government operates statewide, this issue affects operations and activities in every county, some conducting normal operations while some are involved in emergency operations. As there are essential emergency services to be performed by state government employees, consideration should be given to enacting state legislation that would allow state workers to perform authorized work in a regular duty status outside their normal work activities, with the approval of their department head. Employees could continue in a pay status with their home department. This action could greatly assist in contingency planning and enhance overall state disaster preparedness.

COUNTY EMERGENCY MANAGEMENT

Emergency management operations in each of Iowa's 99 counties are extremely critical and vital links in the emergency management system. Currently, each county is authorized to staff an emergency management coordinator at less than full time. Legislation should be considered to require a paid, full time coordinator for each county that is certified by the state as a fully trained resource. These full time coordinators would provide sound, coordinated, effective, and up-to-date emergency multi-hazard plans that enhance overall preparedness at the local level. Requiring more detailed exercises at the local level monitored by state emergency management personnel would also assist in plan development and coordinated emergency response.

TAXABLE DISASTER AID INCOME

Consideration should be given to allow taxable disaster benefits and crop insurance proceeds received in 1994 to be reported either in 1993 or 1994 on state tax returns. Iowa tax provisions have generally followed federal provisions in this area, however, this action is not dependent on federal guidelines. Farmers were especially subjected to an unusual situation since disaster applications could not be accurately prepared until after the 1993 fall harvest. Most of the disaster funds paid by ASCS were received in 1994, thereby making that money taxable for that year. If a bumper crop is received in 1994, farmers could face additional taxes for their combined benefits and crops. Allowing taxable disaster benefits including crop insurance proceeds received in 1994 to be shifted to 1993 taxable income by individual taxpayer choice, would appear to be justified and consistent with fairness in state tax law.

FLOODPLAIN MANAGEMENT

Iowa could benefit from an expanded, comprehensive, and fully integrated floodplain management program. The current program has lost its momentum over the years due to changes in management responsibility and lack of adequate resourcing. Levees have been constructed and others altered without benefit of thorough project review or application of recent technology. Communities can not attain adequate state assistance in mitigating future damage or responding to potential flooding. The state's basic approach to floodplain management is one of protecting existing development while controlling new development in the floodplain. Personnel and funding resources devoted to this effort by the state have eroded, especially during the past several years.

An enhanced floodplain management program should be fully coordinated with the national program, and each surrounding state as state programs affect each other individually and collectively. Land use within floodplains needs to be examined and changed where appropriate to uses that are more adaptive to periodic flooding. Examples are fish, wildlife, and recreation areas with minimal developments, and agricultural lands managed with the expectancy of periodic flooding. Land cover such as bottomland forest, wetlands, oxbow lakes, and grasslands are most appropriate for floodplains. Reducing vulnerability to future floods is as important as improving disaster relief capabilities and programs. Watershed management should also be incorporated into assessment. Wetland restoration and unchanneled rivers can play a large role in reducing flood damage downstream. Electronic river monitoring and warning systems, detailed river basin modeling, extensive mapping, and other technology-based information are vital to the effectiveness of floodplain management. Personnel resources should include agriculture and civil engineering technicians who would be available to perform in the State Emergency Operations Center during emergencies. This expertise was extremely limited and not readily available in the State EOC during the 1993 flooding. The State of Iowa should review the floodplain management responsibility within the state and revise necessary laws to create a viable, effective program with adequate resources.

FEDERAL CONGRESSIONAL ISSUES

PUBLIC ASSISTANCE COST SHARE

The federal share of Public Assistance under the Robert T. Stafford Disaster Relief and Recovery Act must not be less than 75 percent of the net eligible cost of repair, restoration, reconstruction, or replacement activities implemented during relief operations for a Presidentially Declared Disaster. Although the federal share for the flood disaster was eventually increased to 90 percent, similar to other recent disasters occurring within the United States, the federal government should consider increasing the federal share through legislative change. Widespread disasters that cause every county to be declared federal disaster areas need an abundant amount of federal assistance, as state and local budgets do not have the emergency resources to provide necessary relief. Consideration should be given to pre-established levels of cost-sharing ranging from 75/25 to 100/0, depending upon the extent of the disaster damage. Whatever the cost-share percentage is determined to be, two elements are certain. The federal share should be increased from 75 percent, and the cost-share arrangement should be predetermined before the disaster strikes. States should not have to plead for increased disaster assistance from the Stafford Act while conducting emergency response and recovery operations. The formula must be based upon a set of conditions which must exist to receive more than 75 percent federal support, including local and state government's ability to pay the costs in an appropriate response timeframe. Per capita provisions may fit some situations, but it should not be a sole criteria for a local disaster in a highly populated state, i.e. California earthquakes.

INTEREST RATES OF FEDERAL LOANS

SBA loan rates at 4 and 8 percent and FmHA loan rates at 4.5 percent or less were not competitive in the current low interest rate environment. Interest rates on federal loans should be equal to or lower than commercial rates to encourage low cost borrowing during time of emergencies. Consideration should be given to revising interest rates on federal loans, basing rates on a variable scale related to current market rates.

INDIVIDUAL ASSISTANCE PROGRAM

Applications from citizens applying for grants are required to be reviewed by SBA for loan eligibility. If an applicant's financial condition qualifies them to repay a loan, then the application is processed as a loan, not a grant. Applicants who were turned down or rejected for a loan had their applications processed as a grant, as was originally requested. Not only does the involvement by SBA slow down the process, citizens are dissatisfied at being rejected in time of great stress. The general feeling among Iowans is that if they were not in great need, they would not have asked for grant assistance. Overall statistics support this feeling in that out of the 22,395 FEMA applications received to date, only 2,314 were approved for a low interest loan, substantiating the fact that most applicants were unable to repay a loan. This procedure should be a one step process of application where determination is made for either a grant or loan, or a combination of the two, based upon one simplified application to SBA.

LEVEE RESTORATION

Federal clarification of levee maintenance is required. The Corps of Engineers transition of levee maintenance from Corps to public responsibility in 1988 has created an unworkable situation. The cost of bringing levees to standard for Corps acceptance together with the COE decision to maintain only navigational levees has created a management problem for the state. The Soil Conservation Service has performed in an outstanding manner, but was initially restricted from repairing levees in floodplains over 400 square miles, and is still restricted from repairing individual agricultural levees. Federal legislation is required to fix responsibilities, to create a workable levee maintenance program that will remain workable in the future, and to cover all main river levees regardless of whether they protect infrastructure or individual agricultural ground. The use of Wetland Reserves and other restoration programs should be mandated in cases where restoration exceeds a ten year payback in total production revenue.

FEDERAL CROP INSURANCE

This program should receive a complete national review followed by major congressional reform to allow for cost effective choices for farmers and producers. The 1993 floods prevented many farmers from planting seed during the planting season. Insurance did not cover those fields not planted. Prevented planting protection, as well as late planting protection, and improved yield loss estimates are needed. A simple, flexible array of choices for crop coverage should be offered to farmers based on their overall farming operation and need for risk protection. Crop eligibility should be expanded to include all crops, and overall cost should remain low to encourage greater participation for overall crop protection by farmers and producers.

TAXABLE DISASTER AID INCOME

Consideration should be given to allow taxable disaster benefits including crop insurance proceeds received in 1994 to be reported either in 1993 or 1994 on federal tax returns. Farmers were especially subjected to an unusual situation since disaster applications could not be accurately prepared until after the 1993 fall harvest. Most of the disaster funds paid by ASCS were received in 1994, thereby making that money taxable for that year. If a bumper crop is received in 1994, farmers could face additional taxes for their combined benefits and crops. Allowing taxable disaster benefits and crop insurance proceeds received in 1994 to be shifted to 1993 taxable income by individual taxpayer choice, would appear to be justified and consistent with fairness in federal tax law.

ECONOMIC DEVELOPMENT GRANTS

Disaster funding provided by the Economic Development Administration (EDA) has not been responsive to the needs of the state. The EDA process of review and requirements for communities to satisfy strategic mitigation plans in order to get specific flood damaged projects approved and funded, is too slow for disaster relief. Either an accelerated process is necessary, or future disaster funds should be removed from EDA and placed into the Community Block Development Grant program. The CBDG program has proven to be highly responsive to disaster response operations.

NATIONAL FLOOD INSURANCE PROGRAM

The NFIP is not attractive to many Iowans. The program has an increasing proportion of extremely high-risk policy-holders and a very low rate of participation among eligible individuals. This has caused insurance premiums to become too high for lower risk properties. Additionally, insurance promotes the repair of damaged property over measures to mitigate future losses. Although the NFIP has provisions to purchase damaged, insured property, eligibility and program funding do not meet property owner needs and requirements. The NFIP should be reformed to broaden and reduce the risk pool. Mitigation coverage to fund floodproofing measures for floodprone properties would reduce risk. Revised premiums based on risk and repeated claims would shift the premium burden to high-risk properties, and make insurance more affordable for lower risk property owners. Insurance regulators should insure that mortgage lenders comply with mandatory flood insurance purchase requirements by property owners, thereby broadening the risk pool. These reforms would enhance the fiscal health of the program and reduce property owner reliance on federal disaster assistance in time of need.

ACCESS TO DISASTER ASSISTANCE DATA

A system should be developed to provide state and local agencies with applicant data received from federal sources. Access to an electronic common disaster assistance database by federal, state, and local agencies would save time and money, provide a current status of applications, and reduce duplication of disaster benefits. Federal agencies such as FEMA, SBA, FrnHA, EDA, SCS, Corps of Engineers, and others, as well as various state and local agencies, could greatly benefit from the sharing of applicant data. A system could be designed to include both Individual and Public Assistance applications throughout initial submission, damage assessment and mitigation, and project completion or potential buy-out of property. Such a system would reduce confusion pertaining to the status of applications, save valuable time during periods of emergency, and reduce current efforts by states to download data for various uses. An efficient system of information sharing among all government agencies will improve and expedite program benefits to individual citizens and public entities.

FLOODPLAIN MANAGEMENT

Federal action is necessary to upgrade floodplain management in the Missouri and Mississippi River basins. Use of US Department of Defense assets, such as Air Force satellite capability, in close cooperation with the National Oceanic and Atmospheric Administration would provide outstanding capability to accurately map both river basins at one-foot intervals. An important subsequent initiative to this would be the electronic monitoring of river flows and contingency modeling in those communities where significant damage occurred. Following this improved method of projecting the most significant impacts, long range mitigation projects can be planned and funded. This approach will provide a more accurate, effective solution to flood protection over current sporadic mitigation initiatives. Federal and state agreements must be developed and approved to insure proper state support to the overall mitigation effort.

IOWA FLOOD

DISASTER REPORT

ANNEX C

INTERNAL

STATE ISSUES

INTERNAL STATE ISSUES

ENHANCE AND UPGRADE EMERGENCY PREPAREDNESS

A complete, in depth review and revision of the Iowa Emergency Plan and all annexes is needed. Supporting plans prepared and implemented at department level require revision or further development. Additional formal written procedures are needed in areas of communications, EOC operations and staffing, volunteer and donation management, media operations, damage assessment, and weather forecasting, warning, and analysis (including river level prediction). These procedures should be incorporated into county and local emergency plans as appropriate and approved by the state. Exercise and training scenarios must be upgraded, and plans exercised frequently down to local level, with participation from departments and agencies with functional emergency responsibilities.

State department representatives and local emergency management personnel should be certified as fully trained before performing emergency duties. Training courses can be presented or coordinated through Emergency Management Division for state and local emergency management personnel and those detailed to perform emergency action duties. Some local county personnel should receive additional training for hazards unique to their communities.

Mobilization personnel should be identified, trained, and released for duty with emergency management both at state and local level. Consideration should be given to provide regional disaster coordination within Iowa. Regional resources could be used to augment state and local emergency management activities, assist in training, and enhance overall preparedness. Permanent staffing in Emergency Management Division and emergency EOC staffing from the Iowa National Guard and other state agencies should be reviewed and changed in accordance with needs.

Overall disaster preparedness can be enhanced through interagency communication, and periodic briefings, training sessions, and other forums facilitated by Emergency Management Division. All government organizations should continue to expand their network of information and support that proved useful during the floods.

COMMUNICATIONS AND SERVICES

The application of technology is strongly encouraged to include fiber optics for communication and services among all state and local government agencies in all 99 Iowa counties. Communications and services must be compatible by all users. The additional use of cellular telephones, fax machines, and other means must be planned and implemented without delay. Agency hotlines (toll-free 800 lines) must be planned, installed, publicized, and activated immediately upon need. Communications and services must be planned for use during periods without electrical power or telephone service caused by natural disasters. Lack of computer compatibility between FEMA and the state regarding disaster assistance data must be permanently resolved to further expedite delivery of assistance to disaster victims.

LEVEE MANAGEMENT

Consideration should be given to dedicating state resources to levee management coordination. Personnel and resources should be available for both emergencies and non-emergencies to coordinate levee matters. The primary focus of need is on comprehensive long-term solutions rather than short-term fixes.

DELIVERY OF DISASTER ASSISTANCE

The delivery of disaster assistance can be greatly expedited by using existing private and public organizations for outreach and assistance to disaster victims. This method was used with tremendous success in certain areas during flood relief, however, various agencies should more fully develop these and other methods of delivery. Farmers were greatly assisted through ASCS, SCS, and FmHA offices and networks. The Iowa Bankers Association and Small Business Development Centers greatly assisted small businesses applying for SBA loans and coordinating other business matters. Iowa State University Extension provided timely information, outreach, and guidance to citizens. Community Mental Health Centers, Community Action Agencies, and Councils of Governments provided extensive outreach and assistance to flood victims. Other organizations provided similar services through their networking and service providers. Technical and professional associations can provide statewide networking that can greatly assist in the execution of disaster operations. Emergency planners must utilize all available networks of support to deliver assistance in an effective and efficient manner.