

APPENDIX B: HISTORY OF THE STATE'S FEDERAL DISASTER DECLARATIONS

This appendix will present a discussion of how Wisconsin's Hazard Mitigation Grant Program evolved in the course of the state's declared disaster history from 1991 to 2016.

FEMA-912-DR-WI

On August 6, 1991, the President declared a major disaster for the counties of Dane, Jefferson, Ozaukee, Washington and Waukesha as a result of high winds and severe storms that occurred July 7, 1991.

Severe storms in south central and southeastern Wisconsin on July 7 ranged from 60 to 80 miles per hour and hail as large as one inch in diameter fell in northeastern Dane County. Wind and hail caused crop damage and damage to farm buildings. In urban areas, trees were split and uprooted, damaging property and blocking streets as well as causing significant damages to private and public utility power lines. High winds also caused damage to 400 homes. A state owned hanger at the Dane County Regional Airport was completely destroyed damaging two state airplanes.

Total estimated damages for the disaster were \$26.7 million. The costs incurred by government were estimated to be \$3.7 million with individual property and agricultural losses at \$23 million. The declaration was granted for Public Assistance only as the majority of the private sector damages were covered by insurance. The Public Assistance Program provided \$3,283,562 to 79 community and county applicants. The Farmers Home Administration Emergency Loan Program also was made available to farmers who were affected by the storm.

The Hazard Mitigation Team Report prepared for FEMA-912-DR-WI identified mitigation opportunities in the following areas: 1) Use of local forestry program standards in the removal of damaged and hazardous trees and branches; 2) Identification and utilization of wind resistant building construction and repair standards, and the incorporation of mitigation provisions in local inspectors' training and certification programs; and 3) Provision of warning sirens. The issues raised remain concerns today and are being addressed by the State Hazard Mitigation Team through the planning process. Some require additional research and will require legislative action. Others will have opposition to implementation from various parties.

As a result of the declaration, the five counties were also eligible for the Section 404-Hazard Mitigation Grant Program (HMGP). HMGP funds available totaled \$108,684 with the federal share representing 50% or \$54,342, state share 25% or \$27,171 with a local match of 25% or \$27,171. Due to the small amount of funds available, the state had a difficult time in identifying an eligible project that would meet all of FEMA's program criteria and the funds remained unobligated for some time.

After the Midwest Flood in 1993, the state received a HMGP application from Jefferson County for acquisition and demolition of structures in the floodway on Blackhawk Island located in the

Towns of Sumner and Koshkonong. Major floods occurred on the island in 1929, 1959, 1979 and 1993 with 1929 the worst recorded flood. Lesser flooding occurs almost annually, affecting many of the island's low to moderate-income level families and secondary residences. In 1993, the water came up to less than 10 inches from the all-time high and nearly every resident was evacuated for more than seven weeks. The repeated flooding caused structures on the island to show signs of disrepair. Septic systems and holding tanks were poor to substandard quality and presented an environment threat. In addition to the damages that occurred to the structures, there were continued expenses for the towns and county in emergency response and road repairs on the island.

As a result of the flooding in 1993, the county received grants from the Department of Administration (Community Development Block Grant in the amount of \$500,000) and the Department of Natural Resources (Urban Rivers Grant Program in the amount of \$611,000) for acquisition and demolition. To further the county's efforts, the state requested and FEMA approved a HMGP grant under 912-DR in the amount of \$108,684 for Jefferson County. The funds were applied to the acquisition and demolition of three properties located on Blackhawk Island. The county received additional HMGP funds under declaration FEMA-994-DR-WI as well as the Flood Mitigation Assistance Program (FMA) to further their efforts of acquisition and demolition on Blackhawk Island. To date the county has acquired and demolished 30 structures utilizing the various funding sources. In addition, the county received a FMA Planning Grant to develop a comprehensive flood mitigation plan. There are about 60 structures remaining on the island. The acquisition and demolition of structures on Blackhawk Island remains a high priority with the county.

FEMA-959-DR-WI

On September 2, 1992, the President declared a major disaster for Waushara County for severe storms and tornadoes that occurred on August 29. During the evening of August 29, two tornadoes occurred. The first, an F1, occurred in Adams County and was on the ground for 4.5 miles. No injuries were reported and there was only minor damage. The second tornado ripped through Waushara County killing two individuals (one from a heart attack) and injuring 30 others. The tornado, rated F3 (158-206 mph) was on the ground for approximately 30 miles. The City of Wautoma sustained the heaviest damage with debris being a major concern.

The storms destroyed mobile homes, severely damaged a migrant worker camp and decimated thousands of trees. Forty-eight homes were destroyed, 95 received major damage, 289 received minor damage and 100 were affected to a lesser degree. Twenty-eight businesses were also damaged as well as many farm buildings. Two private, non-profit organizations were destroyed: One employed handicapped individuals and the other was a senior citizen center. On alternate weekends the senior citizen center hosted a Bingo Night. Fortunately, it was empty the night of the tornado or there could have been up to 200 people in the center at the time the tornado struck. The number of deaths and injuries could have been much higher.

Debris was widespread in both urban and rural areas. There were massive tracts of downed timber posing a serious problem on both public and private lands. About 953 acres of

commercial and state forested lands were critically affected. Waushara County is known as the Christmas tree capitol of the world. Christmas tree farms were severely impacted by this event. Metal debris from destroyed mobile homes was also a problem and was scattered throughout forests and agricultural fields.

The costs incurred by government were estimated to be \$1.8 million with individual property and agricultural losses at \$8.3 million. The estimated damages totaled \$10.1 million. Disaster assistance through the Public Assistance Program was provided to 18 applicants and totaled \$807,648. Assistance through the Individual and Family Grant program and through Crisis Counseling totaled \$391,881. In addition, Disaster Housing Grants, Small Business Administration low-interest loans and unemployment assistance were provided. Waushara County and the contiguous counties of Adams, Green Lake, Marquette, Portage, Waupaca and Winnebago were eligible for physical and production loss loans through the Farmers Home Administration.

The Hazard Mitigation Team Report prepared for FEMA-959-DR-WI identified 12 mitigation recommendations in the following areas: Alert and Warning (3), Severe Weather Protection Shelters (1), Training and Education (3), Building Codes and Standards (4) and Economic Development (1). Several of the recommendations remain concerns today and are being addressed by the State Hazard Mitigation Team through the planning process for this document. Some require additional research and will require legislative action.

As a result of the declaration, the communities within the county were eligible for Section 404-Hazard Mitigation Grant Program funds. HMGP funds available totaled \$38,868 with the federal share representing 50% or \$19,434, a state share of 25% or \$9,717 with a local match of 25% or \$9,717. Waushara County applied for an HMGP grant for a weather information system that would create a forecasting system for all hazards that would greatly enhance the ability of local responders to preplan their responses based on past, current and predictable future weather conditions. This application was related to mitigation recommendation 3 of the Hazard Mitigation Team Report.

FEMA denied the application stating that the proposal was considered an enhancement to the county's preparedness capability and was not mitigation. They further referred to FEMA's policy dated February 7, 1992, regarding the funding of warning systems and other similar equipment. The policy states that HMGP cannot fund the purchase of warning systems, enhanced computer hardware and similar equipment. However, 44 CFR Section 206.434, states that "development or improvement of warning systems" are eligible under HMGP. The state submitted a formal appeal to the decision on behalf of the county and was denied. Working with FEMA and this office, the county submitted another application for the development and implementation of a geographic information system (GIS) application that received approval. The project consisted of verifying digitized floodplain maps, using a global positioning system (GPS) to identify the location of structures in the 100-year floodplain of the Pine River, determine the lowest adjacent and first floor elevations and incorporate the information into the county's GIS system. The information would be used in emergency situations and for mitigation planning efforts. The

project covered 12.7 miles of the Pine River and involved investigation of 124 structures. In addition to the HMGP awarded to the county, a basement was constructed in the rebuilding of the senior center to be used as a community shelter utilizing Section 406 funds.

FEMA-963-DR-WI

On September 18, 1992, the President declared a major disaster for Dane County as a result of severe storms and tornadoes that occurred on June 17. The Governor had requested a disaster declaration for Dane County on June 22, but was denied on the basis that the majority of damage occurred to insured structures. An appeal submitted on July 27 cited the tremendous burden already placed on the state by the numerous natural disasters that had already taken place during the year. Subsequently the President granted a disaster declaration for Public Assistance and Hazard Mitigation.

On June 17, 1992, a tornado touched down in southern Dane County just ten miles south of Madison. The F3 tornado touched down in the City of Fitchburg at the State of Wisconsin Oakhill Correctional Institute causing heavy to total destruction of the various buildings and equipment. More than 12 buildings at the prison farm were totally destroyed and two others sustained a 50% loss. Total damages, including inventory, livestock and machinery/equipment were set at more than \$5.2 million. The tornado continued to travel northeast, destroying businesses and residences in its path. The storm damaged almost 200 homes, including 48 that were totally destroyed. The majority of homes destroyed and damaged were located in the Waubesa Heights subdivision within the Town of Dunn. Other private sector damages included damages to barns, outbuildings and sheds. Debris removal was also a concern.

Between 20 and 30 persons were injured, but fortunately there were no deaths. Contemplating the magnitude of the storm, it is significant that there were few injuries and no deaths. This was attributed to the fact that the storm occurred during the day and that there was adequate warning.

The costs incurred by government were estimated at \$5.4 million with damages to individual property and agricultural losses at \$9 million for total estimated damages of \$14.4 million. Disaster assistance through the Public Assistance Program was provided to 12 applicants and totaled \$2,600,142.

The Hazard Mitigation Survey Team Report prepared for FEMA-963-DR-WI identified 4 recommendations. Again, one of the recommendations dealt with building codes and standards similar to those identified in the previous report for FEMA-959-DR-WI. Several of the recommendations remain concerns today and are being addressed by the State Hazard Mitigation Team through the planning process for this document. Some require additional research and will require legislative action. Others have opposition from various parties to implementation.

As a result of the declaration, the communities within the county were eligible for Section 404-Hazard Mitigation Grant Program funds. HMGP funds available totaled \$376,374 with the

federal share representing 50% or \$188,187, a state share of 25% or \$94,093.50 with a local match of 25% or \$94,093.50. The state received 12 pre-applications from six communities totaling \$836,405. Grants were awarded to the City of Sun Prairie and the Villages of Cross Plains and Deforest. The City of Sun Prairie received HMGP funds in the amount of \$137,340. Fifty percent or \$68,670 represented the federal share with the state providing 25% or \$34,335. The city provided the remaining 25% plus additional funds in the amount of \$91,021. The City of Sun Prairie received an initial grant for the development of a stormwater management plan. A subsequent award was then granted to implement one of the recommendations identified in the stormwater management plan. The Village of Cross Plains received a grant in the amount of \$37,000 (\$18,500 federal share, \$9,250 state and local shares) for a clearwater infiltration abatement project. Finally, the Village of Deforest received a grant in the amount of \$202,034 (\$101,017 federal share, \$50,508.50 state and local shares) for the development of a detention basin. In addition to HMGP, funds for construction of the basin were provided through a Community Development Block Grant in the amount of \$200,049. Both the City of Sun Prairie and the Village of Deforest reported that these projects reduced damages during the flooding that occurred in May-June 2000. It is also worth mentioning that the City of Sun Prairie completed an all-hazards mitigation plan subsequent to receiving mitigation funds.

FEMA-964-DR-WI

On September 30, 1992, the President declared a major disaster for severe storms and flooding that occurred between September 14-24. This was the third federal disaster declaration granted for the state in less than two months. The declaration made Buffalo, Crawford, Jackson, Juneau, Pepin, Pierce, Richland, Sauk, Trempealeau and Vernon Counties eligible for Public and Individual Assistance as well as the Hazard Mitigation Grant Program.

The majority of the rain fell between September 14 and 18 with the heaviest rainfall occurring on the 16th. Precipitation reports showed a wide area across the central portion of the state received rainfall greater than 4 inches. Two areas recorded rainfall greater than 7 inches, one located in upper Buffalo and Trempealeau Counties and the other near Hillsboro just east of the Kickapoo Valley. Within these areas, there were isolated reports of 9 to 13 inches. A few farmers in the LaValle-Hillsboro region reported three-day amounts of 14-17 inches. Four rivers, the Pine River in Richland County, the Trempealeau River in Trempealeau County, the Baraboo River in Sauk County and the Kickapoo River in Crawford and Vernon Counties rose quickly. Many of the rivers crested at record levels, and some equaled or exceeded the 100-year flood elevation. Arcadia, Richland Center, Rock Springs, Viola and Gays Mills were evacuated as flood waters inundated or surrounded residences. The flooding forced early closure of Farm Progress Days, which was a serious blow to the economy of the region.

Dozens of state, county and local roads were closed when swollen rivers and run-off flooded them. Numerous bridges were damaged or destroyed. A levee in Arcadia was greatly stressed and in danger of breaching. The Wisconsin National Guard assisted emergency officials and volunteers with sandbagging efforts. There was considerable damage in the City of Richland Center. Approximately 120 buildings were flooded. Due to previous mitigation, 50 to 70

residences were protected and suffered no damage. Damage assessment indicated that 19 homes received major damage, 174 minor and 132 were affected to a lesser degree.

The damages to and costs incurred by government were estimated at \$1.9 million with damages to individual property and agricultural losses at almost \$16 million for total estimated damages of \$17.9 million. Disaster assistance through the Public Assistance Program was provided to 145 applicants in the amount of \$2,821,355. Individual assistance was provided through the Individual and Family Grant Program in the amount of \$126,402. In addition, Disaster Housing Grants and Small Business Administration low-interest loans provided assistance.

The Interagency Hazard Mitigation Team Report for FEMA-964-DR-WI identified 9 mitigation recommendations in the following areas: Flood Planning (2), Stream Maintenance (1) and Alert and Warning (6) as well as 19 site specific recommendations.

As a result of the declaration, the communities within the ten counties were eligible for Section 404-Hazard Mitigation Grant Program funds. HMGP funds available totaled \$391,074 with the federal share representing 50% or \$195,537, state share 25% or \$97,768 with a local match of 25% or \$97,768. The state received 25 pre-applications totaling \$1,732,163. Based on a review of the submitted pre-applications, 8 applicants were asked to participate in the formal application process. Grants were awarded to the Cities of Blair (Trempealeau County) and Black River Falls (Jackson County). The City of Blair was approved for a HMGP grant in the amount of \$109,144 for a dam improvement project on Lake Henry. Fifty percent or \$54,572 represented the federal share, with the state and city providing 25% each in the amount of \$27,286. In addition, the city received a Community Development Block Grant in the amount of \$109,173, and a grant from the Department of Natural Resources in the amount of \$43,460 for this project. The City of Black River Falls was awarded a grant in the amount of \$281,930 for constructing storm sewers to alleviate flooding problems. The federal share represented 50% or \$140,965 with the state and local shares of 25% or \$70,482 each. In addition, the city also received a Community Development Block Grant in the amount of \$43,971 to complete this project.

FEMA-994-DR-WI

Wisconsin experienced above normal precipitation across much of Wisconsin during April and May of 1993. Initially this began with prolonged periods of rain and heavy late season snowfalls, then as showers and thunderstorms. In early June, a weather pattern developed that was characterized by a strong low-pressure system over the western United States and a large high-pressure system in the southeast. The jetstream dipped south in the western states and flowed northeasterly across the upper Midwest. The southeastern high blocked the eastward movement of storms, thus creating a convergence zone between the warm, moist flow from the Gulf of Mexico and the much cooler and drier air from Canada, which resulted in thunderstorms. As a result, the upper Midwest within this zone was deluged with rain through most of June and July. The persistence of this weather pattern caused unusually large amounts of rain to fall over the upper Midwest. These large accumulations and the wetter-than-usual spring produced flooding throughout the upper Mississippi River basin. Cumulative totals of 20-40 inches for the first seven months of the year were typical; putting totals 150-200% above normal.

This event would become known as the Great Midwest Flood, with nine states including Wisconsin declared a federal disaster area. The magnitude of the Great Midwest Flood to people, property, business, agriculture, tourism, and the environment, was unmatched by any other flood in the history of the country. Damages exceeded \$12 billion with \$747 million in Wisconsin. The Mississippi and Missouri Rivers would be closed to shipping and millions of acres of farmland were severely impacted.

The state incurred \$800 million in agricultural-related damages. Cool, wet weather in 1992 combined with over \$125 million in winterkill losses and a very wet spring made this one of the most disastrous periods in the state agricultural history. It was estimated that 804,800 acres of farmland suffered severe erosion due to the flooding. It would cost \$11 million to implement all the land treatment practices needed to correct erosion damage. At least 4,700 homes were damaged and 2,500 people evacuated. Private business losses exceeded \$31 million, most of it related to business shutdowns and damages to goods and supplies. Public damages reached \$43.6 million. The state lost millions in tourism revenue and incurred costs for additional staff for public health services, unemployment claims for displaced workers and extensive use of National Guard and Conservation Corps services.

In Wisconsin, the disaster started with one of its wettest and most stormy months of June in memory. The first bout of severe weather occurred on June 7 and 8 when heavy rains and severe thunderstorms developed in the southern two-thirds of the state. The most damaging weather occurred in east central Wisconsin where tornadoes ripped through Green Lake and surrounding communities. Statewide the rains continued and were followed by an outbreak of tornadoes that occurred on June 17. That storm affected a band of counties extending from Grant County northeastward to central and east central counties. In addition to the damages caused by the high winds and tornadoes, rainfall of two to seven inches throughout the southern and western part of the state caused even greater problems on rivers and streams that were bank-full and soils that were still saturated from spring snowmelt and record precipitation during the month of May. Flooding occurred along the following rivers and tributaries: Black, Buffalo, Chippewa, Eau Claire, Fox, Kickapoo, Trempealeau, Wolf, Wisconsin and Mississippi. The National Weather Service issued flood watches and warnings almost continuously. Several dams and levees failed, hundreds were evacuated and hundreds of millions of dollars in damages resulted.

Evacuations occurred in Jackson, Columbia, Trempealeau, Adams and several other counties as rivers made islands of residential and business areas. Both individual and municipal water supplies were contaminated along with collapsed mound and/or septic systems.

Significant structural damage to residences occurred in the Grove subdivision in the City of Black River Falls when the levee along the Black River failed. Approximately 90 structures were substantially damaged. The municipal sewer and water systems were also severely damaged. The city with a population of 3,500 received \$45 million in damages. Damages to utilities were estimated at \$6.5 million.

Over 250 members of the Wisconsin National Guard were on duty in the City of Black River Falls beginning on June 20. They assisted with flood fighting efforts, security and evacuation. On June 28 another 25 Guard members were activated to assist in sandbagging operations in the City of Prairie du Chien in Crawford County. Guard members and/or equipment such as water buffaloes and tankers were also used in numerous other communities. Guard helicopters assisted with overflights in assessing the severity of the situation throughout the area. Hundreds of volunteers also assisted in sandbagging efforts in the most critical areas around the state.

Literally hundreds of state, county and town roads were closed when swollen rivers and runoff flooded them. Local police, fire, public works and emergency management officials worked around the clock for more than a week monitoring dams and levees and taking emergency protective actions.

The preliminary damage assessment identified almost 1,600 homes that were affected by the flooding. In addition, emergency protective measures and damage to roads and bridges were confirmed at nearly \$5 million.

On June 29 the Governor requested federal disaster assistance for 30 counties. Initial damage assessment figures compiled by the county emergency management offices indicated that disaster-related costs were \$30 million in private damage, \$20 million in public damages and \$124 million in agricultural losses for a total in excess of \$174 million.

On July 2, 1993, the President declared a major disaster for 17 of the 30 counties as a result of flash flooding, heavy rains, severe storms and tornadoes that began on June 7. The counties included in the declaration included Calumet, Clark, Eau Claire, Green Lake, Jackson, Marquette and Trempealeau for both Public and Individual Assistance, and the Counties of Columbia, Dunn, Fond du Lac, Outagamie, Portage, Sauk, Waupaca, Waushara, Winnebago and Wood for Individual Assistance only.

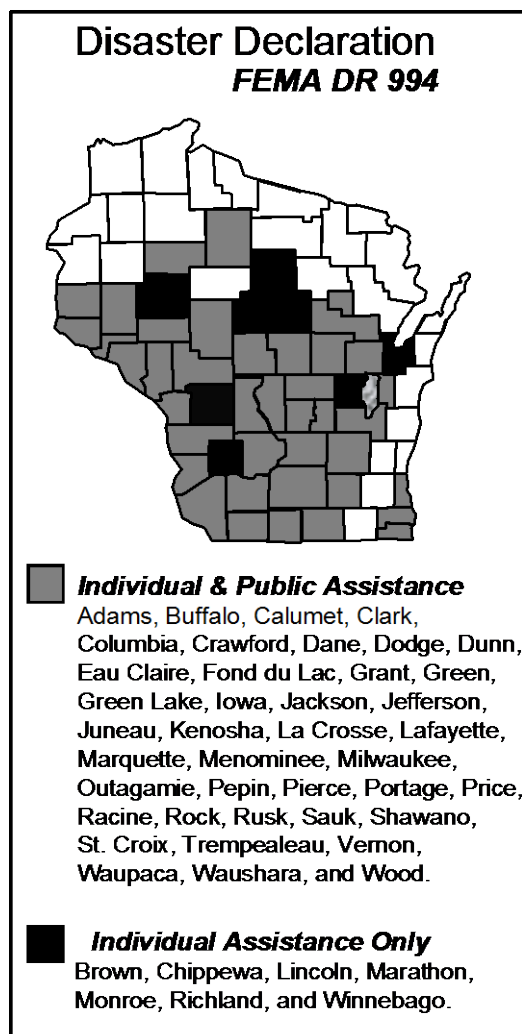
Subsequent rainfalls in late June and July again caused serious damages this time in the basins of the Pecatonica and Yahara Rivers. An extreme example of localized flooding occurred on July 17-18 as a flash flood at the Baraboo River and Devils Lake. Over 12 inches of rain fell in a three-hour time period and exceeded the 100-year precipitation event by 3.6 inches. The flash flood washed away cars, roads, bridges and buildings, and resulted in the death of a twelve-year old when the car he was riding in was overturned and he was carried downstream. The Baraboo River rose ten feet in five hours, 6.75 feet above flood stage. Three of the City of Baraboo's wells were disabled, numerous highways closed and more than 2,300 campers evacuated. There was three to five feet of standing water throughout Baraboo. Damage to a major industry in the city was estimated at \$1.5 million. Devils Lake State Park incurred significant damages and was closed for the first time in its history.

Working together, the Wisconsin National Guard, Wisconsin Conservation Corps and the Department of Corrections provided over 1,110 personnel for 4,340 man-days along with 125 vehicles and heavy equipment for over 10,770 hours in assisting on 62 projects in 14 counties.

By August, the stalled weather pattern began to revert to more normal conditions. Finally, floodwaters receded around the state with the exception of the lower Rock River (Some of the above information was provided from the report on "The Floods of 1993: The Wisconsin Experience," prepared by the Wisconsin Department of Natural Resources).

On July 30, the Governor requested that FEMA waive the 25% state and local match for the Public Assistance Program, the 50% state and local match for the Hazard Mitigation Grant Program and the 25% state match for the Individual and Family Grant Program because of the duration, magnitude and severity of the 1993 flood disaster. Damages had been estimated at \$175 million in total disaster-related costs in the Governor's initial request for disaster assistance June 29. Disaster losses were now estimated at \$47 million in public and \$700 million in private losses for a total of \$747 million, with that amount increasing with each passing day. It would

take the state years to recover. This disaster was unlike any the state had ever experienced. The request to waive the match requirements for the HMGP and IFGP were denied as the cost sharing requirements for both programs are set by law, therefore, they could not be adjusted. However, eventually FEMA increased the federal cost share for the Public Assistance Program for the nine states impacted by the Midwest Floods to 90% requiring only a 10% state and local match. This not only increased the amount of federal funding for eligible applicants of the Public Assistance Program, but also increased the amount of HMGP funds that would be available since the funding allocation was based on 10% of the amount of federal funds approved in the Public Assistance Program.



By the end of summer, 47 counties would be included in the declaration and made eligible for federal disaster assistance. Forty counties were declared for both Public and Individual Assistance, while another seven were eligible for Individual Assistance only. All 47 counties were eligible for the Hazard Mitigation Grant Program. The incident period extended from June 7 to August 25.

The Interagency Hazard Mitigation Team Report for FEMA-994-DR-WI dated July 23, 1993, identified 36

mitigation recommendations for 42 of the 47 counties in the following categories: Alerts and Warning (3), Education (7), Flood Planning (2), River/Stream Maintenance (1), site specific recommendations (21) and Technical Assistance (2).

Due to the magnitude of the Great Midwest Flood, on August 6, Congress approved HR 2667, a bill to provide \$5.3 billion in supplemental disaster appropriations to federal agencies to assist state and local governments respond and recover from the widespread flooding. Eleven federal agencies would receive supplemental funds from this bill. FEMA received \$2 billion. In addition, \$200 million was awarded to the Department of Housing and Urban Development for Community Development Block Grants and \$200 million to the Economic Development Administration for economic recovery and public works grants. These programs in particular would play an important role in the state's recovery from the devastating floods.

To ensure that the flood recovery would be rapid and well coordinated among the various agencies responsible for implementing recovery programs, a meeting was held with federal and state agencies on August 18 in conjunction with the Annual Governor's Conference on Emergency Management. Eighteen federal and state agencies were represented at the meeting. State agencies were required to provide weekly updates to WEM regarding status of the various recovery activities. Reports were consolidated and forwarded to the Governor's Office. WEM was the primary coordinating agency with FEMA.

On August 26 and 27, the Midwest Flood Disaster Workshop was held in Des Moines, Iowa to provide a forum for federal, state and local officials to discuss the short and long term needs and to begin to develop flood recovery plans. Representatives from WEM and the Department of Administration attended this workshop. The goals of the session were to:

- Devise a relief system to deliver the highest level of assistance and service to the maximum number of victims;
- Provide a quick response to the questions and technical needs of the providers of housing relief services; and
- Assess federal programs in light of the current situation.

To coordinate recovery efforts at the state level, FEMA and WEM conducted a meeting with various federal and state agencies and Regional Planning Commissions on September 19 to discuss a strategy for dealing with mitigation and long-term recovery. At the meeting it was determined that a core group of agencies would meet on a weekly basis to act as a clearinghouse for communities proposing long-term recovery projects. Other agencies were brought into the process as needed. The core group consisted of FEMA, WEM, the Economic Development Administration, the Department of Natural Resources, the Department of Administration, the Department of Development (Commerce) and the State Historical Society. The Farmers Home Administration, Natural Resources Conservation Service and the State Departments of Transportation and Industry, Labor and Human Relations (Workforce Development) would later join the group. The group would become known as the Wisconsin

Interagency Disaster Recovery Group (IDRG) which continues to meet today in response to disaster declarations. The IDRG identified as its mission: "To develop a cooperative federal and state disaster recovery effort that can assist communities and regional agencies in utilizing all available funding sources to recovery from and mitigate the future effects associated with the damages from natural hazards." The objectives of the IDRG to achieve the mission were to:

- Serve as a clearinghouse for tracking and status reporting of disaster recovery project applications;
- Encourage and assist funding submissions from communities for recovery and hazard mitigation projects;
- Assure full utilization of all available and applicable funding sources for recovery and mitigation projects;
- Encourage the enhancement of recovery projects with hazard mitigation measures; and
- Assist in the avoidance of funding duplication for recovery and mitigation efforts.

Significant to the state's recovery was FEMA's establishment of the Wisconsin Interagency Hazard Mitigation Recovery Office (WIHRO). This office was set up in WEM headquarters and was staffed with a full-time FEMA staff person who worked closely with WEM staff and supported the efforts of the core group. Projects submitted to the core group were entered into a database developed and maintained by the WIHRO. The database acted as a central source of information and provided the status on all projects submitted to the agencies. The WIHRO staff grew to two and continued to be staffed until 1996. It played a vital role in implementing mitigation projects within the state.

The Regional Planning Commissions (RPCs) in Wisconsin played an integral part in the recovery process. The Economic Development Administration funded Flood Recovery Coordinators in the RPCs to assist communities in developing grant applications for the various funding sources available, and to prepare Regional Flood Recovery Plans. In addition, FEMA provided technical assistance funds to supplement EDA's efforts with the RPCs. The RPCs worked with communities and agencies to clarify and/or obtain additional information on specific projects.

FEMA's priority was to fund projects that reduced future disaster losses through acquisition or relocation of properties most prone to flood damages. Although many other types of projects were funded through the various agencies on the IDRG, the group's priority also became acquisition, demolition, relocation and floodproofing of flood damaged property.

The Great Midwest Flood was a turning point for mitigation and in particular the Hazard Mitigation Grant Program. On December 3, 1993, the President signed the Hazard Mitigation and Relocation Assistance Act. This significantly increased funding in the HMGP in two ways. First, it increased the amount of funding for grants from 50% federal share to 75%. Second, allocation funding was increased from 10% of the federal share of the funds spent in the Public Assistance Program to 15% of the total estimated federal grant assistance provided under the

Stafford Act (i.e., Individual and Public Assistance Programs). This would raise the amount of HMGP funds available in this declaration from an estimate of \$2 million to over \$14 million.

The database developed by WIHRO included 136 projects totaling \$70 million that were reviewed by the IDRG. WEM received over 90 pre-applications for HMGP totaling \$30 million. To assist the communities in their recovery efforts, the IDRG packaged several funding sources so that the community did not have to fund the required local match. The required local match was provided with CDBG funds through the Departments of Development (Commerce) and Administration. Following the priorities of the IDRG, HMGP grants were awarded to the following communities:

B.1 HMGP APPLICANTS FOR FEMA 994-DR		
Applicant	County	Amount
Darlington, City of	Lafayette	\$4,175,790
Eau Claire, City of	Eau Claire	\$2,152,831
Eau Claire County	Eau Claire	\$1,217,227
Jefferson County	Jefferson	\$ 458,635
Pierce County	Pierce	\$6,000,000
TOTAL		\$14,004,483

This was the first declaration that acquisition/demolition and floodproofing projects were implemented utilizing HMGP funds, and it was not an easy task. The WEM had no prior experience with these types of projects, therefore, policies and procedures had to be established. In addition, several of the projects particularly in the City of Darlington had significant issues that had to be resolved prior to funding and implementation. This included issues involving relocation assistance per state law, environmental contamination, floodplain management compliance, historical and ADA (Americans with Disabilities Act) requirements. With the persistence, patience and coordination of the agencies involved and the applicants, these "roadblocks" were eventually overcome and the projects proceeded. As a result, 179 properties were mitigated; 156 properties (12 commercial) acquired and demolished and another 23 properties (21 commercial most of which were historic) floodproofed. Additional properties were mitigated utilizing CDBG funds provided through the Department of Administration. Through the Department of Commerce, CDBG funds were provided to many communities to implement mitigation measures to repair and reconstruct public facilities.

As stated previously, on June 20 an earthen levee that protected a portion of the City of Black River Falls referred to as the Grove subdivision failed. Floodwaters reached the ceiling of the first floor of many structures causing significant damage. As a result of the levee failure, the city received funds to reconstruct the levee to current standards for adequate protection in future events. Funds in the amount of \$2,014,625 were provided in Section 406 mitigation funding through the Public Assistance Program to reconstruct the levee south of Highway 54 in the residential area referred to as the Grove. Additional funds from the Economic Development

Administration and the State Department of Commerce (CDBG) provided for the construction of the levee north of Highway 54 protecting the downtown business area. The excellent cooperation and coordination among the state and federal agencies made this project possible.

The City of Darlington's mitigation program is a prime example of what can be achieved by long-term planning and cooperation of city officials, local business owners and concerned citizens as well as federal and state agencies. In the last 50 years, four major flood events occurred on the Pecatonica River causing substantial damage to homes and businesses, most recently in 1990 and 1993. After the 1990 flood, attention focused on alternatives to prevent future damage such as relocation, floodproofing and elevating structures. The city had developed a Master Plan in 1984. After the 1990 flood, the city updated the Master Plan to include flood mitigation strategies. The city completed a comprehensive flood mitigation plan with a grant provided by FEMA through WEM. Goals of both plans were to implement an extensive flood mitigation effort that would include historic preservation, economic development, downtown revitalization, recreation and tourism. The revised Darlington Master Plan was barely a year old and the Darlington Flood Mitigation Plan was in draft when the 1993 flood hit the city. The flood provided the impetus and a sense of urgency to finalize the flood mitigation plan.

Repeated flooding over time led to deterioration of many of the downtown buildings. City officials, citizens and business owners determined that they could no longer sit by and let nature decide the future of their community. The city finalized the Flood Mitigation Plan that included not only floodproofing residential properties and acquisition and demolition of commercial floodplain properties (some with contamination), but also a downtown rehabilitation and mitigation project. Instead of moving the downtown businesses, the project included in-place floodproofing and rehabilitation of buildings. The city was the first community in the state to have a FEMA-approved mitigation plan.

The first step was to inventory and collect survey data for structures in the floodplain. The Corps of Engineers, Natural Resources Conservation Service and WDNR all worked together to provide the flood data needed to estimate flood damages for the economic analysis. Next, the State Historical Society nominated Darlington's historic Main Street Central Business District to the National Register of Historic Places. The District includes 51 buildings within a six-block area. Next, a study was completed to identify flood mitigation measures for 41 buildings.

The approach taken in Darlington is characterized as innovative and unique. The approach in Darlington was to find a way for the government agencies, building and business owners and the city to arrive at a consensus on how to accomplish four major objectives: 1) preserve the historic downtown business district; 2) restore the downtown economic base; 3) develop an urban river open space park and recreation area; and 4) eliminate or substantially reduce flood damage in the future. With the assistance of many federal and state agencies the following mitigation measures were implemented:

- 12 commercial buildings were acquired and demolished adjacent to the river and the land used for riverfront park and recreation area. A 33-acre parcel on higher ground was developed as a business park for the relocated businesses;
- 52 residential structures were mitigated with some structures elevated and others had floodwalls constructed where raising the structure was not possible;
- 6 downtown businesses that could not be floodproofed or elevated were afforded as much flood protection as possible by raising or floodproofing building mechanics, electrical and plumbing;
- 13 historic downtown buildings were refurbished and floodproofed while maintaining their historic character; and
- A new wastewater treatment plant was constructed outside of the floodplain.

Benefits resulting from implementation of the mitigation recommendations are the significant reduction of future flood damages, quicker recovery following floods, capital improvements, economic development and revitalization of the downtown business community.

The city worked continuously and aggressively to implement their mitigation program. The city applied for and received over \$10 million in various state and federal grants and loans to accomplish their goals. As a result of their efforts, the city has reduced the number of repetitive loss properties in the city from 11 to 2 (one rejected a mitigation offer). The city was honored with a State Historical Society of Wisconsin Historic Preservation Achievement Award on May 9, 1998, and the architectural and engineering firm hired for the downtown floodproofing project received a state award for special categories through the Association of Building Contractors. The city continues to pursue funding to further their mitigation efforts. They have received additional grants and acquired and demolished a repetitive loss property as well as relocated the fire department outside of the floodplain. The City of Darlington is an example of what a small community can do with long-term planning and determination.

Another significant result of the declaration was that mitigation would take a more important role in emergency management. WEM created a position and hired a full-time hazard mitigation officer in August of 1994.

As a result of the declaration, almost \$300 million in disaster relief was provided through the various state and federal programs. More than 4,500 individuals received disaster assistance through the FEMA programs making it the largest Individual Assistance Program in the state up to that point in time. More than 600 state and local governments and non-profits received disaster assistance through the Public Assistance Program. To date, this disaster generated the most funding for the state's Public Assistance and Hazard Mitigation Grant Programs.

B.2 SOURCES OF FEDERAL ASSISTANCE FOR FEMA 994-DR	
Program	Amount
Agricultural Programs	\$230,742,262
SBA Disaster Loan Program (individuals and businesses)	\$ 10,394,929
Disaster Housing Grants	\$ 3,944,158
Individual and Family Grant	\$ 1,492,267
Public Assistance Program	\$ 22,297,456
Hazard Mitigation Grant Program	\$ 14,427,340
Community Development Block Grants	\$ 5,008,911
Community Services Grants	\$ 1,525,000
Federal Highway Administration	\$ 1,019,309
TOTAL	\$290,851,632.00

FEMA-1131-DR-WI

On August 2, 1996, the President declared a major disaster for Fond du Lac and Green Counties as a result of tornadoes and flooding that occurred on July 17 and 18. The Governor requested both Public and Individual Assistance. However, the declaration was granted for Public Assistance only, as the majority of private sector damages were covered by insurance. Hazard Mitigation was also granted as part of the declaration. The Governor appealed the decision for Individual Assistance that again was denied. However, Green County was declared eligible for low-interest loans from the Small Business Administration.

In 1996 following a wet spring, a weather front stalled over southern Wisconsin and northern Illinois. This front produced torrential record rains along the state border on the evening of July 17 with Green County receiving eleven inches of rain in five hours. The heavy rain caused riverine flooding, flash flooding and sewer backup. Dozens of roads were damaged with many bridges destroyed.

The stalled weather system also generated a line of severe thunderstorms that moved through east central Wisconsin during the late afternoon and evening on July 18. Shortly after 7 p.m., a tornado touched down in the Village of Oakfield and the Towns of Oakfield and Byron in Fond du Lac County. The twister was classified as an F5 storm and left a path of destruction about one quarter mile wide and 15 miles long. There were nineteen injuries and more than 360 homes and businesses damaged or destroyed. Destroyed were two churches, a private school, a middle school and a major business. Thousands of trees were uprooted as well.

The costs and losses incurred by government were estimated to be \$11.4 million with damages to individual property and agricultural losses at \$49.7 million for total estimated damages of \$61.1 million. Disaster assistance through the Public Assistance Program was provided to 33 communities and totaled \$2,140,156.

The Hazard Mitigation Early Implementation Strategy Report dated August 14, 1996 outlined a four-phase approach for identifying and implementing appropriate mitigation strategies. The first phase was to reconvene the Wisconsin Interagency Disaster Recovery Group (IDRG) to assist the local governments during the recovery phase. This was done to provide technical assistance when possible; prevent duplication of efforts and funding; identify and prioritize mitigation measures and projects; and identify funding options for implementing mitigation measures whether through the individual agencies or by “packaging” various funding programs. Phase II included conducting briefings/meetings with local officials. This was done to discuss mitigation and various options available, introduce local officials to mitigation planning, and make them aware of potential funding programs. Phase III was to solicit pre-applications for the Hazard Mitigation Grant Program. Phase IV entailed a thorough review of the pre-applications submitted and selecting those projects for the HMGP formal application process.

In administering the declaration, greater effort was made to fund Section 406 mitigation opportunities through the Public Assistance Program. To further this effort, a federal mitigation staff person was assigned to be a liaison with Public Assistance (Infrastructure) staff and provide technical support. This liaison reviewed Damage Survey Reports (DSRs) for mitigation opportunities and provided the required benefit-cost analysis for the 406 mitigation projects.

A Recovery Information Center opened for one day in the Village of Oakfield and two Construction Information Workshops were held designed to inform local homeowners and building professionals of wind resistant construction practices. A document, Building to Resist Strong Winds, was developed by the mitigation staff and distributed at the workshops. In addition, a display demonstrating connectors along with catalogs and installation guides were provided. It was estimated that 35 to 40 homeowners and 10 building professionals attended the workshops.

As a result of the declaration, the communities within Fond du Lac and Green Counties were eligible for the Section 404-Hazard Mitigation Grant Program funds. HMGP funds available totaled \$344,527 with the federal share representing 75% or \$258,395, a state share of 12.5% or \$43,066 with a local match of the same amount. The state received eight pre-applications (three from Fond du Lac County and five from Green County) totaling \$1,070,729. Grants were awarded to the City of Monroe and the Village of Oakfield. The City of Monroe received HMGP funds in the amount of \$142,311 (\$106,733 federal, \$17,789 state and local shares) for the construction of a detention pond. Another grant was awarded to the Oakfield School District in the amount of \$202,216 (\$151,662 federal and \$25,277 state share).

The Oakfield Middle School was destroyed in the tornado that struck the community on July 18. If school had been in session at the time of the tornado, there may have been many injuries and possibly deaths. The School District had the foresight to apply for HMGP funds to harden the new facility by strengthening and reinforcing the walls. Funds were provided to construct the interior and exterior bearing walls with reinforced masonry; construct the roof system with precast flat slabs on the low room areas; upper roof over the gymnasium/stage area was precast double trees; with the complete roof system tied into the masonry bearing walls with reinforcing

steel and welded plate inserts. The hardened facility will not only reduce future damages, but will also provide protection to the students, faculty and others in the community during severe weather. The increased cost of construction over the original design was \$233,000. The cost for the added protection was relatively small compared to the benefits that cannot be measured. This was the first time the state funded this type of project with HMGP funds.

FEMA-1180-DR-WI

On July 7, 1997, the President declared a Major Disaster for Milwaukee, Ozaukee, Washington and Waukesha Counties as a result of flooding that occurred on June 21-23. The declaration was granted for Public and Individual Assistance as well as Hazard Mitigation.

During the night of June 20 and the morning of June 21, 1997, a storm system passed through the southeastern portion of Wisconsin in the area of Ozaukee, Milwaukee, Washington and Waukesha Counties. This storm system generated torrential rains throughout this four-county area with rainfall ranging from five to nearly ten inches in a thirty-hour period beginning at 6:00 AM on Friday, June 20 and ending on June 21 at noon. Information from the "Rainfall Frequency Atlas of the Midwest" indicated that this was greater than a 100-year rainfall for this area. The most intense rainfall was centered in northern Milwaukee County and covered a 13 mile-wide, 18 mile-long band which included the extreme southern portion of Ozaukee County, southeastern Washington County and northeastern Waukesha County.

Between 3:00 and 11:00 AM on June 21, Flash Flood and Flood Warnings were issued for portions of the four counties. The Milwaukee County EOC set up a flood information hotline which received over 900 calls between Saturday morning and the following Monday (June 23).

The flooding was made worse by existing high-moisture conditions. Prior to the flooding rains, moderate rainfall amounts of from 1.5 to 2.0 inches were reported across the region in a 24-hour period on June 15-16. This earlier rain saturated the area soils. When the intense rainfalls of June 20-21 occurred, the ability of the soil to absorb rainfall was reduced and the amount of runoff was increased.

The torrential rain coupled with heavy urban runoff caused the drainage ditches, sewer systems, creeks and rivers to rise rapidly. Most of the larger rivers in the area reached and surpassed flood stage by midmorning on June 21. The Milwaukee, Menomonee, Fox and Sheboygan Rivers and Lincoln and Oak Creeks reported flooding levels during the morning. With the storm sewer system overloaded, sanitary sewers began to back up into residences throughout the area. Areas with significant damage included Mequon and Thiensville in Ozaukee County, Germantown in Washington County, New Berlin, Brookfield, Menomonee Falls and Sussex in Waukesha County and Brown Deer, Glendale and Wauwatosa in Milwaukee County. The Piggsville and Lincoln Creek areas in the City of Milwaukee were among the hardest hit. Milwaukee County received extensive damages to its parks and golf courses.

Thousands of homes were damaged due to overland flooding, stormwater drainage problems and sanitary sewer backups. Water was filling basements and in some cases reaching the first

floor of the house. Hundreds of businesses along waterways and drainage creeks sustained damages and had to close for some time. Several roads were closed and electricity was lost as the storms passed through the area.

Initial damage assessments reported \$71 million in damage to private property and \$17 million to public property for a total of \$87 million. As a result of the declaration, \$6,164,209 was provided through the Public Assistance Program to 57 communities, state agencies and eligible private non-profit organizations. More than 14,000 individuals applied for Individual Assistance totaling over \$37 million. This represents the largest Individual Assistance Program ever administered in the state. In addition, the declared counties received a special HUD (Housing and Urban Development) CDBG award in the amount of \$4.1 million for unmet needs.

As in the previous disaster, greater effort was made to fund eligible mitigation measures through the Individual and Public Assistance Programs. For the first time, a Memorandum of Understanding (MOU) was developed for the declaration for implementing Section 406 mitigation opportunities. The MOU outlined the process and procedures that would be implemented in the declaration to ensure that all eligible mitigation opportunities were explored and funded through the program. The MOU was signed by Federal and State Hazard Mitigation and Public Assistance Officers as well as the State and Federal Coordinating Officers and the Deputy FCO for Mitigation.

For the first time, Hazard Mitigation Grant Program funds were eligible statewide. Available HMGP funds for the declaration totaled \$6,265,003 with the federal share representing 75% or \$4,698,752, a state share of 12.5% or \$783,125 with a local match of the same amount. The state received over 60 pre-applications totaling \$60 million. After discussion with the Wisconsin IDRG, the decision was made that projects consisting of acquisition and floodproofing would receive the highest priority for further funding consideration. Each pre-application was reviewed, scored and ranked based on the state's priorities. Nine communities were requested to participate in the formal application process, along with Milwaukee County for an educational project. After review of the formal applications, benefit-cost analyses and environmental review, the following applications were submitted to FEMA for approval:

B.3 HMGP APPLICANTS FOR FEMA 1180-DR		
Applicant	County	Amount
Brookfield, City of	Waukesha	\$222,075
Menomonee Falls, Village of	Waukesha	\$1,886,927
Milwaukee, City of	Milwaukee	\$1,613,000
Milwaukee County	Milwaukee	\$40,000
Wauwatosa, City of	Milwaukee	\$2,388,661
West Allis, City of	Milwaukee	\$114,340

TOTAL		\$6,265,003
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All of the projects involved acquisition of flood damaged properties with the following exceptions. The City of Milwaukee's grant included some floodproofing in the Menomonee Valley area, and Milwaukee County's project was for the production of a mitigation video and brochure targeted at homeowners.

In August 1998, the applications were at FEMA Region V awaiting approval and obligation of funds when Milwaukee and Waukesha Counties again incurred significant damages from flooding. Many of the same structures damaged in the previous flood were flooded again, making some of them uninhabitable and substantially damaged. Subsequent to this second flood the above applicants received grant approval.

As projects were completed, unspent funds were reallocated to other projects. The City of West Allis' project involved the acquisition and demolition of one property. The property owner declined an offer, therefore, grant funds were withdrawn. Unspent funds from the Cities of West Allis and Wauwatosa were reobligated to Eau Claire County for the acquisition and demolition of a property that was substantially damaged as a result of flooding that occurred in September of 2000. Unspent funds from the Cities of Milwaukee and West Allis were reobligated to Milwaukee County to further their educational efforts. The County purchased a portable display booth that was used at the Wisconsin State Fair and Bay Shore Safety Days. In addition, unspent funds from the Cities of Wauwatosa and West Allis were reobligated to the City of Oak Creek for the acquisition and demolition of one repetitive loss property that was substantially damaged as result of flooding that occurred in June 2000. The allocation for the declaration and funds approved totaled \$6,265,003 with actual expenditures of \$6,148,173. Appendix C identifies the projects and actual amounts awarded for the declaration.

FEMA-1236-DR-WI

On July 24, 1998, the President declared a major disaster for Buffalo, Clark, Crawford, Dunn, Grant, Jackson, LaCrosse, Monroe, Pepin, Pierce, Richland, St. Croix, Trempealeau and Vernon Counties as a result of high winds and severe storms that occurred on June 18-30. The Governor's request added Chippewa, Eau Claire and Rock Counties and included both Public and Individual Assistance. However, the declaration was granted only for Public Assistance for the above fourteen counties (initially Richland County was denied, but after appeal was included). Individual Assistance was denied on the basis that most of the private sector losses were covered by insurance. The Governor appealed the decision that denied Public Assistance for Chippewa, Eau Claire, Richland and Rock Counties, and Individual Assistance for all seventeen counties. The Governor also requested that Juneau, Sauk and Wood Counties be added for Public Assistance. The only request that was successful was the addition of Richland County for Public Assistance. All other requests were denied.

The disaster was the result of an extraordinary siege of severe weather during the period of June 18 through 30. Warmer than normal temperatures and high humidity levels, combined with a

strong, relatively stationary jet stream, resulted in downburst winds, tornadoes, heavy rain and flash flooding. The Severe Storms Prediction Center issued 17 severe weather watches (12 for thunderstorms and 5 for tornadoes) during this time period. The average number of watches issued annually in the state is 38. In addition, the Wisconsin National Weather Service offices issued an equally significant number of severe thunderstorm and tornado warnings and flash flood watches and warnings, with that number equaling 60% of those issued annually in the state. The state was still reeling from the damages suffered in storms that occurred May 31. Thus, the severity of these later weather events amplified the difficulty of the situation and slowed recovery even more.

Hundreds of homes and farm structures sustained damage. Thousands of acres of trees on both public and private lands were blown down, creating a serious problem with debris. Power outages were as widespread as those experienced subsequent to the 1976 ice storm, with some areas without power for four to five days. Local utility crews from other states helped to restore service. Particularly hard hit were the numerous private non-profit rural electric cooperatives that serve the west central area of the state. They sustained millions of dollars of damage and needed many months to fully restore service to its pre-disaster status.

Heavy rainfall caused many streams and rivers to reach or exceed flood stage and forced the closure of numerous roads. A few rivers even exceeded the levels they rose to in the record 1993 floods. Many farm fields were flooded and some crops, such as corn and soybeans were damaged in crucial stages of development. The basements of dozens of homes were flooded resulting in damage to furnaces and water heaters, and in some cases structural damage.

Initial damage assessments estimated there were \$37 million in private and agricultural losses and \$11 million to public property for a total of \$48 million in damages. Public Assistance grants totaling \$8,360,750 were awarded to 214 communities and private non-profit organizations.

The Mitigation Strategy Report, dated August 7, 1998, focused on coordination with other disaster assistance programs, mitigation project development and promotion of the NFIP's mitigation opportunities.

HMGP funds available for this declaration were \$1,962,465 with the 75% federal share of \$1,471,849, a state share of 12.5% or \$245,308 with the local match the same. The state received 24 pre-applications totaling \$1.4 million. Each pre-application was reviewed, scored and ranked based on the state's priorities. The state convened the IDRГ to discuss the pre-applications and establish priorities for HMGP funding.

As federal and state staff were administering the disaster assistance programs out of the Disaster Field Office located in La Crosse, significant flooding was occurring in the east central and southeast part of the state. As a result of those events, the state received a second Major Disaster Declaration in August for Milwaukee, Racine, Rock, Sheboygan and Waukesha Counties. A decision was made to pool the HMGP funds available from both declarations to be used to

fund projects submitted under either declaration that met the state's priority (i.e., acquisition of flood damaged properties with those determined to be substantially damaged receiving the highest priority). None of the pre-applications submitted under declaration 1236-DR met the criteria. Therefore, pre-applications submitted under the second declaration that met these criteria received further consideration. Ten communities were asked to participate in the formal application process with eight of the ten returning applications. After review of the formal applications, benefit-cost analyses and environmental review, the following applications were submitted to FEMA and subsequently approved:

B.4 HMGP APPLICANTS FOR FEMA 1236-DR		
Applicant	County	Amount
Brookfield, City of	Waukesha	\$ 180,725
Elm Grove, Village of	Waukesha	\$ 869,048
Menomonee Falls, Village of	Waukesha	\$ 502,782
Milwaukee, City of	Milwaukee	\$ 170,000
New Berlin, City of	Waukesha	\$ 136,325
State Management Costs	WEM	\$ 103,585
TOTAL		\$1,962,465

All of the projects involved the acquisition of substantially damaged properties except for the Village of Menomonee Falls. The village identified sixteen properties for acquisition and had received an approved HMGP grant as a result of the previous year's declaration, however, there were not enough funds awarded to purchase all the properties. Therefore, the funds awarded under declaration 1236-DR were to supplement the previous grant award.

As projects were completed, unspent funds were reallocated to other projects. Unspent funds from the Cities of New Berlin and Milwaukee were used to fund construction of a retention pond in the Village of Thiensville. Funds allocated for the declaration and approved totaled \$1,962,465 with actual expenditures of \$1,767,681. Appendix C identifies the projects and actual amounts awarded for the declaration.

FEMA-1238-DR-WI

On August 12, 1998, the President declared a Major Disaster for Milwaukee, Rock, Sheboygan and Waukesha Counties for both Public and Individual Assistance as a result of severe storms and flooding that occurred August 5-7. Racine County was later added for Individual Assistance but was denied Public Assistance. In addition, the Hazard Mitigation Grant Program was made eligible statewide.

The disaster was the result of an extremely active severe weather pattern during the period of August 4 through 7 in the southern part of the state. The storms caused flash flooding and urban/small stream flooding, the majority of which occurred on August 5 and 6. A series of slow-moving thunderstorms affected the area over several days and dumped from five to ten

inches of rain in a three to five hour period. The most severely impacted areas were the Cities of Sheboygan and Kohler in Sheboygan County, the eastern portion of Waukesha County, the northwest half of Milwaukee County, much of Rock County and the Town of Waterford in Racine County. Observed rainfall amounts in the City of Sheboygan were at least 10.7 inches, anywhere from 6 to 10 inches in Waukesha and Milwaukee Counties and 6 to 9 inches in Rock County.

The state was still in the recovery phase as a result of damages suffered in a May 31 severe weather (request for federal disaster assistance denied) and the June 18-30 storms. The severity of this event just amplified the situation making the recovery even slower.

The rain came so rapidly and intensely that sandbagging and pumping were ineffective. Creeks and rivers rose rapidly. Storm and sanitary sewers were overwhelmed by the intense rainfall. Tragically, two boys lost their lives in the Village of Elm Grove in Waukesha County as they were swept into a culvert and drowned in the drainage system. Another youngster in Rock County was pulled from a river and was in critical condition. Dozens of others were injured in the clean-up effort. Emergency response personnel were busy rescuing persons from stranded vehicles and evacuating homes and institutions.

Thousands of homes were damaged to one extent or another, hundreds of which had water above the first floor. Many of those sustained structural damage with basement walls bowing or collapsing. In the City of Sheboygan, which was particularly hard hit, an apartment complex was structurally damaged causing the long-term displacement of more than 100 residents. The flooding also affected hundreds of businesses, many of which sustained major damage and several of which permanently went out of business. Some of the same areas that had been hard hit the previous summer were again damaged in this event, making many structures substantially damaged.

Initial damage assessment figures reported \$44 million in private losses and \$11 million in public damages for a total of \$55 million in disaster damages. \$3,357,975 was awarded to 54 applicants for Public Assistance. A total of \$26,518,526 was made available as Individual Assistance from the following sources: Loans from the Small Business Administration (\$12,479,500); Disaster Housing Grants (\$8,824,255); Individual and Family Grants (\$5,147,127); the Disaster Unemployment Assistance Program (\$3,253); and the Crisis Counseling Program (\$64,121). The declared counties also received a Community Development Block Grant for \$3,462,000 to address serious unmet needs.

The Mitigation Strategy Report dated August 21, 1998, identified activities to be implemented in the following areas: Community mitigation education and outreach; Coordination with other disaster assistance programs; Mitigation project development; and NFIP mitigation opportunities and promotion.

Hazard mitigation (HMGP) funds available for the declaration amounted to \$4,450,421 with \$3,337,816 representing the 75% federal share with the state and local match of \$556,302 each. Recognizing that some of the hardest hit areas within Waukesha and Milwaukee Counties were

the same areas affected by flooding the previous summer, mitigation staff knew there would be structures that would meet the criteria of substantially damaged under local floodplain zoning. Therefore, federal and state staff including DNR worked with local officials to make substantial damage determinations. This included having FEMA provide a training session for local officials, state WEM and DNR staff meeting with communities and DNR sending letters to each of communities requesting them to identify the substantially damaged structures. This information became the basis for project development for the HMGP.

The state received 45 pre-applications totaling over \$50 million. Each pre-application was reviewed, scored and ranked. The IDRГ reconvened and discussed the pre-applications and established HMGP funding priorities. FEMA and WEM staff was now faced with administering two declarations at the same time. The IDRГ sought to fund those projects that included acquisition of flood damaged properties, with acquisitions of property determined to be substantially damaged under local floodplain zoning given the highest priority. In addition, the decision was made to pool the HMGP funds available from both declarations (1236 and 1238) to be used to fund projects that met the state's priority. None of the pre-applications submitted under 1236-DR met the criteria. Of the pre-applications submitted under 1238-DR, 16 were for acquisition and totaled \$35 million. Ten communities were asked to participate in the formal application process with eight of the ten returning applications. After review of the formal applications, benefit-cost analyses and environmental review, the following applications were submitted to FEMA and subsequently approved.

B.5 HMGP APPLICANTS FOR FEMA 1238-DR		
Applicant	County	Amount
Brown Deer, Village of	Milwaukee	\$1,304,650
Darlington, City of	Lafayette	\$ 196,841
Kenosha County	Kenosha	\$ 885,000
Menomonee Falls, Village of	Waukesha	\$ 117,705
Sheboygan, City of	Sheboygan	\$1,850,000
State Management Costs	WEM	\$ 117,705
TOTAL		\$4,450,421

The grants in the Village of Brown Deer and the City of Sheboygan involved the acquisition of substantially damaged properties. Again, the grant for the Village of Menomonee Falls was awarded to supplement previous grants to enable the Village to complete the acquisition of sixteen properties. The City of Darlington's grant was also awarded to supplement a previous grant so that they could complete the extensive mitigation project underway in that community since 1993. Since the 1993 flood, Kenosha County has aggressively pursued funding for mitigation efforts along the Fox River. As a result, the county was awarded a grant for

acquisition and demolition of structures along the Fox River that have repeatedly received flood damages.

As the projects were completed, any unspent funds were obligated to other projects incurring funding shortfalls, as well as to new projects identified in subsequent events.

As a result, a grant was awarded to the Village of North Fond du Lac for the acquisition and demolition of two properties one which was a repetitive loss site. In addition, additional funds were awarded to the Village of Thiensville for the construction of a retention pond. Funds allocated for the declaration and approved totaled \$4,450,421 with actual expenditures of \$4,392,207. Appendix C identifies the projects and actual amounts awarded to date for the declaration.

FEMA-1284-DR-WI

On August 16, 1999, the President declared a major disaster for Ashland, Bayfield, Douglas, Florence, Iron, Oneida, Price, Rusk, Sawyer and Vilas Counties as a result of severe storms, straight-line winds and flooding that occurred July 4-31 for Public Assistance. The Hazard Mitigation Grant Program was made eligible statewide.

On July 4 and 5 a strong thunderstorm accompanied by high winds dumped torrential rains and caused flash flooding in Bayfield County. More than four inches of rain fell in a very short time in various parts of the county, seriously impairing road systems. Another incident occurred on July 8 when strong thunderstorms dumped more than two inches of rain in Rusk County. The next major episode affected Florence County. Several parts of the county received over seven inches of rain over a six-hour period on July 15 and an additional two inches on July 16. The combined rains and resulting flash flooding had a devastating impact on the affected townships and residents.

On July 23, Rusk and Sawyer Counties were struck by strong early morning thunderstorms. Significant rainfall occurred and straight-line winds caused power outages. A combination of weather systems on July 25 led to continually redeveloping storms for several hours, which affected an even larger area of the state. Heavy rains and high winds occurred once again in Rusk, Sawyer and Bayfield Counties, but with an even more severe effect on Douglas County. Reports of four and five inches of rain were common and the resulting flash floods washed out roads, bridges and culverts. Several small communities such as Solon Springs in Douglas County waited nervously for the storms and rain to subside as homes and businesses were put at risk by the sudden downpour.

The final episode was on July 30. Thunderstorms produced strong wind gusts of more than 75 miles per hour and rainfall averaging one to two inches over a widespread area. Many of the areas hit were the same counties that were ravaged by the previous episodes of severe weather. In Rusk, Douglas and Sawyer Counties downed trees and power lines and washed out roads were once again very common. The storms' intensity persisted as they traveled eastward and wrecked further havoc in Oneida, Vilas and Florence Counties. Tragically, this storm killed three people and inflicted dozens of injuries as trees fell on people and homes.

The collective impact of the series of storms was tremendous especially to the infrastructure of the very sparsely populated, poor, rural communities in these counties. Roads were severely damaged with washouts, scouring, culverts washed away and bridges destroyed. Getting the main roads passable was a tremendous burden on towns that often had a one or two person road crew. Because of the multiple storms, some roads or sections of road were repeatedly damaged, with crews just completing repairs only to have them washed out again several days later. Many persons were forced to take alternate routes of travel driving literally hundreds of miles out of their way to get to their destinations.

High winds and tornadoes also blocked roads with debris. In Oneida and Vilas Counties especially, debris was just shoved to the side of the major roads so as to provide emergency access. It was many weeks before the debris along the right of way was totally removed. Even after cleanup of the roads and right of ways, there remained hundreds of acres of downed timber on private land and local, county, state and national forests. This downed timber created a danger for forest fires that continued into 2000. In light of the fact that it was prime camping season, the state was very fortunate that more campers and park users were not killed or injured. The high winds also took their toll on rural electric cooperatives. There were many downed power lines and utility lines.

Dozens of homes were also affected by the severe weather. In some counties such as Douglas and Florence many residents reported basement flooding. Others experienced water in living areas. In Solon Springs in Douglas County, the St. Croix Lake was so high that homes were surrounded by water. Another problem was contamination of water supply wells due to flooding. Falling trees and high winds damaged dozens of homes and farm buildings. Thousands of residents and businesses were affected by the widespread power outages. Initial damage assessment figures reported \$1.5 million in losses to private property and \$6.5 million on public damages for a total of \$8 million. A total of \$5,158,534 in Public Assistance grants were awarded to 167 applicants.

The Mitigation Strategy Report dated August 24 identified activities to be implemented in the following areas: Community mitigation education and outreach; Coordination with other disaster assistance programs; Mitigation project development; and NFIP mitigation opportunities and promotion.

HMGP funds available for the declaration amounted to \$812,059 with \$609,044 representing the 75% federal share and a state and local match of \$101,529 each. The state received twenty pre-applications totaling \$4,438,999. Each pre-application was reviewed, scored and ranked. The IDRГ reconvened and discussed the pre-applications and established HMGP funding priorities. After discussion with the IDRГ, a decision was made to ask eight applicants (thirteen applications) to participate in the formal application process. Two applicants withdrew. After review of the applications and benefit-cost analyses, the recommendation was made to fund projects as follows:

B.6 HMGP APPLICANTS FOR FEMA 1284-DR		
Applicant	County	Amount
Florence, Town of	Florence	\$250,240
Head of the Lakes Electric Coop.	Douglas	\$235,760
Superior, City of	Douglas	\$320,000
State Management Costs	WEM	\$ 6,059
TOTAL		\$812,059

Based on the funding available and project costs, the applicants are providing greater than the required 12.5% local match. The Town of Florence received a grant for the purpose of a constructing a new municipal well; the Head of Lakes Electric Cooperative replaced 6.3 miles of existing overhead power lines to underground; and the City of Superior for costs of construction of a 700-foot storm water interceptor sewer to connect to the existing storm sewer. In addition, two of the applications (Village of North Fond du Lac in Fond du Lac County and Village of Thiensville in Ozaukee County) were funded under declarations 1236 and 1238 with unspent funds from other projects. Funds allocated for the declaration and approved totaled \$812,059 with actual expenditures of \$806,041. Appendix C identifies the projects and actual amounts awarded to date for the declaration.

FEMA-1332-DR-WI

On June 23, 2000, the President declared a major disaster for 12 counties as a result of severe storms, straight-line winds and flooding that began on May 26. By the end of the incident period (July 19), thirty counties had been included in the declaration: Thirteen counties for both Public and Individual Assistance (Columbia, Crawford, Dane, Grant, Iowa, Juneau, Kenosha, Lafayette, Milwaukee, Richland, Sauk, Vernon and Walworth); Fourteen for Public Assistance only (Adams, Ashland, Barron, Burnett, Forest, Green, Iron, Jackson, Monroe, Oneida, Polk, Rusk, Sawyer and Washburn); and another three (Dodge, Racine and Waukesha) for Individual Assistance. The Hazard Mitigation Grant Program was made eligible statewide.

The disaster started after a very wet month of May. The National Weather Service indicated that it was the wettest month ever for most locations in southern Wisconsin going back through the weather books to 1870. Generally, 8 to 11 inches were measured, with some locations in eastern Iowa and Dane Counties unofficially receiving between 16 and 18 inches. The wet, rainy weather culminated in a series of severe thunderstorms and heavy rains that began May 26 and continued into early June.

The storms produced record rainfalls, tornadoes and hurricane force winds. From 9:00 p.m. on May 29 through 8:00 p.m. on June 2, between 8 and 10 inches of rain fell along a line from southern Vernon County through northern Richland County to central Sauk County, over northwest Iowa County into northwest Dane County and over northern Lafayette County. Because soils were already saturated, the heavy rains pushed most mainstream rivers over flood stage and caused severe and widespread flooding.

Three tornadoes were documented on June 1, in Dodge, Juneau and Monroe Counties. The one in Dodge County, an F2, occurred just after 6:00 p.m. and was on the ground for more than 16 miles. The tornado destroyed or did major damage to several dozen homes in Iron Ridge, a small community of 800 in Dodge County. Elsewhere, there were notable downbursts or wind gusts in the 75 to 100 mph range, accompanied by hail as large as golf balls. Rains reappeared on June 3-4 and added another one to two inches to already saturated soils.

The collective impact of these series of storms was tremendous, especially to the infrastructure of the counties. For many of the communities, roads were severely damaged with washouts, scouring, culverts washed away and bridges destroyed. Just getting the main roads passable was a tremendous burden on the towns, which sometime have a one or two person road crew. Because of multiple storms, some roads or sections of road were damaged repeatedly, with crews just effecting repairs, only to have them washed out again several days later.

High winds and tornadoes also blocked roads with debris and downed power and utility lines. In Juneau and Monroe Counties especially, debris was just shoved to the side of the major roads so as to provide access for emergency vehicles and power crews. It was weeks before debris along the right-of-way was totally removed. This was of great concern to local officials and residents, as many of the roads were nothing more than narrow fire lanes, and the debris made the roadways even narrower. Even after the cleanup, there remained acres of downed timber and debris on private land and in local, county and state forests.

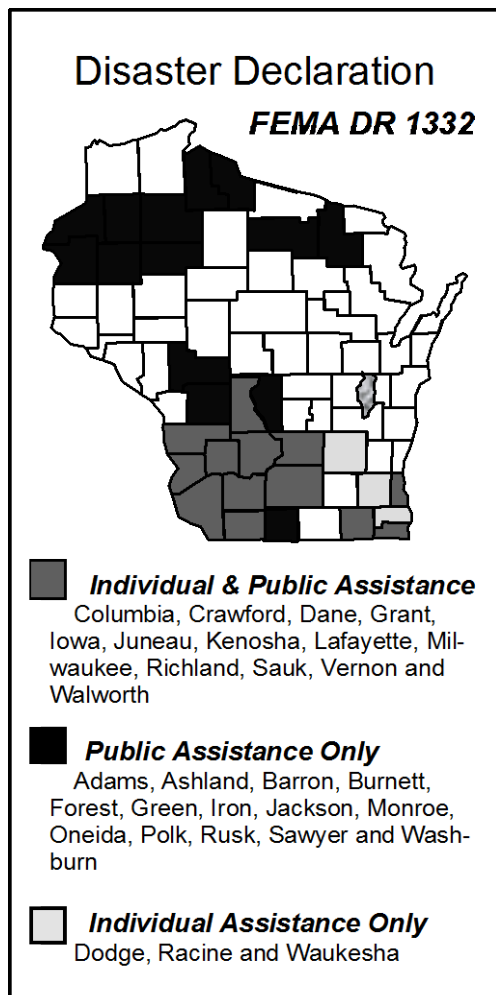
The high winds and flooding also impaired electrical service and took their toll on the rural electric cooperatives. Power crews did a commendable job of restoring service, considering the multiple events, the widespread area of impact and the condition of the roadways. Phone service was also affected, mostly by the rain, and it took at least 2 weeks to have all service fully restored.

Dozens of homes were also affected by the flooding and severe winds. In the majority of the counties, basement flooding was common, jeopardizing furnaces and water heaters. Grant County reported a dozen or more homes that had major damage or were destroyed. Several communities reported sewer back up in residences. Still others had access problems, as roads were either blocked with debris, inundated with water or had bridges washed away. Private well contamination and septic tank problems were reported. Thousands of residences and businesses were affected by the widespread power outages and even those citizens whose structures sustained no physical damage, had to deal with spoiled food or commodities. Shelters were opened, as necessary, in the affected areas to accommodate those displaced from their homes or to serve as relief stations for those involved with the cleanup.

Initial damages assessment figures reported \$11.4 million in private property and \$17.3 million in public damages for a total of \$28.7 million. A preliminary damage assessment was completed for sixteen counties. On June 13, the state requested that Public Assistance be made available to sixteen counties and Individual Assistance for ten of the counties plus contiguous counties.

Another major storm system moved across southeastern corner of the state on June 12 and 13. Kenosha and Walworth Counties received 3 to 5 inches of rain on already heavily saturated soils. Since the Governor's original request, rains continued to fall across southern Wisconsin. In Kenosha, damages were countywide and the County Executive declared a State of Emergency. At one point, more than 100 roads were closed due to high water with 41 county roads remaining closed for several days. Property owners reported losses due to basement flooding, sewer backup and backed up wells. A boating unit assisted with evacuations of a mobile home park in Pleasant Prairie and homes in the Town of Somers. Several communities in Walworth County were also impacted. One village evacuated 100 residences bordering a rapidly rising retention pond. The request included Public Assistance for all three counties, and Individual Assistance for Kenosha and Walworth. The Governor amended his request on June 14 to include the Counties of Jackson, Kenosha, and Walworth.

On June 23, the President declared twelve counties from the Governor's original request eligible for Public Assistance only. On June 28, FEMA advised that Individual Assistance was not granted, as it was determined that the impacts to individuals were not beyond state and local capabilities.



The Governor appealed the above decision on June 30, as additional damages were uncovered in several counties, including Dane, Grant, and Kenosha. The appeal requested that FEMA re-evaluate the information and make Individual Assistance available to the twelve counties and all contiguous counties.

On June 30, the disaster declaration was amended to add Columbia, Kenosha, Jackson, and Walworth Counties for Public Assistance only. Subsequent to the Governor's appeal, on July 11 Crawford, Dane, Grant, Kenosha, Milwaukee, Vernon and Walworth Counties were all declared eligible for Individual Assistance.

On July 2, storms roared through southeastern Wisconsin. Strong winds and heavy rains (4 to 6.5 inches) with the subsequent loss of power caused water and sewage to backup in nearly 7,000 homes. That storm also spawned a F1 tornado that affected the City of Oak Creek and portions of northern Racine County. On July 10, the WEM Division Administrator on behalf of the Governor asked that both Public and Individual Assistance be extended to Milwaukee County, and Public Assistance in Racine County. In addition, he requested that the incident period be extended to July

5. Ironically, the incident period was closed effective July 5. However, on July 8 and 9 the state once again experienced another 4 to 10 inches of rain that resulted in flash flooding in many of the same areas already included in the declaration. In Sauk, Vernon and Crawford Counties, roads affected in the earlier storms were once again damaged, in some cases more severely. With soils saturated and rivers and lakes at or near flood stage, most of the southern half of the state remained at risk with damages occurring with each storm event. More damages were reported in Barron, Burnett, Forest, Oneida, Polk, Rusk, Sawyer and Washburn. On July 12 the Governor requested that the incident period be reopened.

On July 13, Public Assistance was extended to Milwaukee County. This would be the third presidential disaster declaration in four years for the county. On July 13, the WEM Division Administrator requested that in addition to Public Assistance, that Individual Assistance also be granted to Racine County. Effective July 18, Racine County was made eligible for Individual Assistance, but denied Public Assistance. In addition, the Counties of Richland and Sauk were also made eligible for Individual Assistance as a result of the Division Administrator's request the day before.

As a result of the storms that occurred over the weekend of the 10th, ten sparsely populated counties in the northern half of the state were seriously impacted, sustaining almost \$2 million in Public Assistance costs with almost \$1 million in road damages. Therefore, on July 17, the Division Administrator requested that Ashland, Barron, Burnett, Forest, Iron, Oneida, Polk, Rusk, Sawyer and Washburn Counties be included in the declaration for Public Assistance. On July 18 the request was granted and the incident period was closed effective July 19.

Based on calls received on the FEMA teleregistration number, on July 21 the State Coordinating Officer requested that Individual Assistance be granted to Columbia, Iowa, Juneau and Waukesha Counties, and on August 8 for Juneau County. The requests were granted on July 26 and August 9. As a result of the severe weather extending from May 26 through July 19, the final count was 30 counties included in the federal declaration. Thirteen counties were declared for both Public and Individual Assistance, fourteen for Public Assistance only, and three counties for Individual Assistance only.

Under the Disaster Housing Program, 4,139 individuals were eligible for assistance with more than \$6 million disbursed. In the Individual and Family Grant Program, 4,033 applications have been approved for the program with over \$4.5 million issued to disaster victims making it the second largest IFG program in terms of dollars for the state. The Public Assistance Program received 447 applications for disaster assistance totaling to date \$13,857,393.

The Mitigation Strategy Report dated July 17, 2000, identified activities to be implemented in the following areas: Community mitigation education and outreach, coordination with other disaster assistance programs, mitigation project development and National Flood Insurance Program mitigation opportunities and promotion.

Hazard Mitigation (HMGP) funds available for the declaration are \$4,424,019 with \$3,318,014 representing the 75% federal share with the state and local match of \$553,002.50 each. Pre-applications for the program were mailed to potential applicants on September 5 with a due date of October 9. The state received 89 pre-applications totaling \$29.8 million. The pre-applications were categorized as follows:

B.7 HMGP PRE-APPLICATIONS FOR FEMA 1332-DR BY TYPE		
Number	Type	Amount
13	Acquisition	\$14,225,523
17	Detention	\$ 8,327,638
7	Sewer	\$ 1,658,966
7	Drainage	\$ 2,310,000
32	Road Related	\$ 1,244,790
12	Miscellaneous	\$ 2,014,120
1	Ineligible	\$ 1,800
89	TOTAL	\$29,782,837

Each pre-application was reviewed, scored and ranked. Based on the funding priorities previously established by the Interagency Disaster Recovery Group, those communities that applied for acquisition were requested to participate in the formal application process. Formal applications have been forwarded to 9 additional communities with proposed projects that were feasible and addressed state mitigation priorities. A total of 16 completed formal applications were returned. After review of the applications and benefit-cost analyses, the recommendation was made to fund the projects as follows.

B.8 HMGP APPLICANTS FOR FEMA 1332-DR		
Applicant	County	Amount
Baraboo, City of	Sauk	\$ 150,000
Crandon, City of	Forest	\$ 110,000
Cumberland, City Municipal	Barron	\$ 380,520
Dane Co. Emergency Mgmt.	Dane	\$ 33,000
Eau Claire, City of	Eau Claire	\$1,488,562
Elm Grove, Village of	Waukesha	\$ 943,638
Jefferson County	Jefferson	\$ 555,743
Kenosha County	Kenosha	\$ 643,997
Shell Lake, City of	Washburn	\$ 50,000
Sun Prairie, City of	Dane	\$ 30,000
State Management Costs	WEM	\$ 38,559

TOTAL		\$4,424,019
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Four applications involved acquisition and demolition, one demolition only, one relocation/floodproofing, three retrofit projects, one structural and one planning grant. The Jefferson and Kenosha Counties and the Village of Elm Grove used the grant funds to further their ongoing acquisition programs. The City of Eau Claire incurred significant damages from storms and flooding that occurred in September 2000. The State requested and was denied a federal disaster declaration. However, the State was able to award HMGP funds to the City for the acquisition of ten homes that suffered major damages. Other projects involved burying overhead power lines, construction of a storm sewer, relocating a picnic shelter, installing back flow valves and installing surge protectors on warning sirens. Funds allocated for the declaration and approved totaled \$4,424,019 with actual expenditures of \$4,045,602. Appendix C identifies the projects and actual amounts awarded to date for the declaration.

FEMA-3163-EM-WI

On January 24, 2001, the President declared a state of emergency in the State of Wisconsin. The declaration was based on emergency measures performed to save lives and protect public health and safety resulting from record/near record snow on December 11-31, 2000. Dane, Door, Green, Kenosha, Kewaunee, Manitowoc, Milwaukee, Racine, Rock, Sheboygan and Walworth Counties for emergency protective measures (Category B) under the Public Assistance program for a period of 48 hours. Later Columbia, Ozaukee and Waukesha counties were added to the emergency.

FEMA-1369-DR-WI

On May 11, 2001, the President declared a major disaster for 17 counties as a result of flooding and severe storms that began on April 10th. By the time the incident period would close on July 6th an additional 15 counties would be added to the declaration for a total of 32 counties. Eighteen Counties would be declared for both Individual and Public Assistance, and another 14 for Public Assistance only.

Heavy December snowfalls contributed to spring flooding. In mid-April, rain and snowmelt caused the Mississippi River and many of its tributaries to flood. Floodwaters along the Mississippi River from Alma to Prairie du Chien rose to the highest levels since 1965. Spring snowmelt flood outlooks issued by the National Weather Service in March indicated that minor to moderate flooding could be expected along the Mississippi River, assuming normal precipitation and temperatures. However, a cooler than normal spring was not conducive to a gradual snowmelt in the northern reaches of the river basin. Warmer weather in early April resulted in a sudden melt and combined with persistent rainfalls, the Mississippi River began to swell. Early in the week of April 8th, the NWS issued statements indicating the gravity of the situation and communities all along the River began an intense flood-fighting effort.

The River crested at near record stages in most Wisconsin locations during the week of April 15th and then slowly began to recede. The recession was short-lived, however, when additional

heavy rains and snowfall in the northern reaches of the river basin caused the River to rise again. It crested for the second time in most locations during the last week in April, and remained above flood stage for weeks.

In northern Wisconsin, snowmelt flooding saturated the sandy soils and water tables rose. Persistent showers during the first weeks in April kept those levels high and then heavy rains, from 3 to 5 inches, snow and ice the weekend of April 21 and 22 brought the situation to disastrous proportions. Rivers and creeks quickly exceeded flood stage and lakes overflowed.

The prolonged flood fighting efforts took their toll, not only financially, but also emotionally on the affected communities and individuals. Millions of dollars were spent on emergency protective measures to protect property and save lives. Damage to infrastructure was significant as was the damages to municipal, county, and state parks, forests and recreational areas. Two of the State's historical properties, Villa Louis in Prairie du Chien and Stonefield in Cassville, sustained damage.

More than 2,000 residences were damaged with varying levels of water in them. More than 200 businesses were impacted, including 100 that closed due to the flooding. Even those businesses that did not sustain physical damage suffered economic loss with the closure of the Mississippi River to all traffic. The same was true of the affected communities, most of which thrive on the commerce provided by the River and the tourism industry.

The scope of the disaster expanded when severe storms hit the west-central and east-central areas of the State on June 11 with hurricane-force winds, several tornados, golf and baseball size hail and heavy rains. More than 30 counties reported damage totaling more than \$11 million. One week later on June 18th, a F3 tornado hit Burnett and Washburn Counties. This tornado touched down near Grantsburg and continued traveling east for over 25 miles to an area just outside of Spooner. There was extensive damage and destruction along the tornado's path. The tornado destroyed much of the small community of Siren with a population of 874. Damage was concentrated in a six-block wide where numerous homes and businesses were completely leveled, 3 people killed and 16 people injured.

Under the Housing Program over \$1.6 million was distributed to almost 1,100 households. A total of \$707,028 was distributed to 250 applicants under the Individual and Family Grant Program. WEM received 518 applications from local governments for Public Assistance and distributed \$25,854,670 through the program making it the largest Public Assistance Program to date. The Small Business Administration provided more than \$20 million in low-interest home repair loans, business damage loans and business economic recovery injury loans.

The Mitigation Strategy dated June 2, 2001, identified activities that included identifying and cataloging mitigation opportunities in the impacted communities; implementing acquisition, relocation, demolition, and/or floodproofing mitigation measures; maximizing financial resources for mitigation opportunities; and ensuring long-term mitigation through comprehensive floodplain management and local building practices.

For the first time, there was an opportunity to document the benefits of past mitigation efforts. Pierce County received a HMGP grant after the 1993 flood to acquire fifty-nine properties located on Trenton Island, which is located in the middle of the Mississippi River. Another 7 properties sold to the Red Wing Area Fund, a local conservation group. A flood that occurred in 1997 as well as the flooding in 2001 illustrated the benefits of the buyout program. The extensive losses caused in 1993 would have been multiplied in the 1997 and 2001 floods and in future floods if the homes and businesses participating in the buyout program had remained on the island. To demonstrate the benefits of the program, a success story was developed on the Trenton Island project. The story, as well as other success stories, can be found on WEM's website at <http://emergencymanagement.wi.gov> and FEMA Region V's website at www.fema.gov/mitigationbp/sstoryfind.do.

Hazard Mitigation (HMGP) funds available for the declaration were \$4,390,075 with \$3,292,556 representing the 75% federal share with the state and local match of \$548,759.50 each. WEM received 74 pre-applications for project grant funds totaling over \$25 million. The pre-applications were categorized as follows:

B.9 HMGP PRE-APPLICATIONS FOR FEMA 1369-DR BY TYPE		
Number	Type	Amount
12	Acquisition	\$ 6,730,357
6	Floodproofing-Elevation	\$ 457,417
11	Drainage/Detention	\$ 5,476,171
9	Sewer	\$ 6,116,196
9	Miscellaneous	\$ 646,668
20	Road Related	\$ 2,221,770
7	5% Special Projects	\$ 3,467,370
74	TOTAL	\$25,115,949

After reviewing, scoring and ranking the applications, 19 communities were requested to participate in the formal application process. Upon review of the applications and completion of the benefit-cost analyses the following applications were submitted to FEMA and approved for funding.

B.10 HMGP PROJECT GRANT APPLICANTS FOR FEMA 1369-DR		
Applicant	County	Amount
Burnett County	Burnett	\$ 29,425
Crawford County	Crawford	\$ 713,548
Dairyland Electric Power Coop.	Vernon	\$ 12,000
Douglas County	Douglas	\$ 93,600

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Grant County	Grant	\$ 471,850
Grant County	Grant	\$ 20,770
Jefferson County	Jefferson	\$ 336,845
Juneau County	Juneau	\$ 169,436
Kenosha County	Kenosha	\$ 414,500
Dept. of Natural Resources	State	\$ 96,450
Shell Lake, City of	Washburn	\$ 250,000
Superior, City of	Douglas	\$ 86,317
Trempealeau County	Trempealeau	\$1,059,000
State Management Costs	WEM	\$ 333,811
TOTAL		\$4,087,552

This was the first declaration that communities were eligible to apply for funds for the development of an all hazards mitigation plan. Based on 7% of the HMGP funds planning grants were awarded as follows:

B.11 HMGP PLANNING GRANT APPLICANTS FOR FEMA 1369-DR		
Applicant	County	Amount
Burnett County	Burnett	\$ 60,000
Dane County	Dane	\$ 40,000
Douglas County	Douglas	\$ 53,333
Grant County	Grant	\$ 50,000
Juneau County	Juneau	\$ 20,000
Shell Lake, City of	Washburn	\$ 19,000
Superior, City of	Douglas	\$ 55,000
Sun Prairie, City of	Dane	\$ 5,190
TOTAL		\$302,523

Funds allocated for the declaration and approved totaled \$4,390,075 with actual expenditures of \$4,009,852. Appendix C identifies the projects and actual amounts awarded to date for the declaration.

FEMA-1429-DR-WI

On July 19, 2002, the President declared a major disaster for Adams, Clark, Dunn, Marathon, Marinette, Portage, Waushara, and Wood Counties for Public Assistance as a result of heavy rains, flooding and severe storms that took place June 21-25.

Severe weather began on June 21 with tremendous rainfall in central Wisconsin caused by a nearly stationary warm front. Heavy and persistent rains continued into June 22, with totals

being reported anywhere from 5 to 15 inches. Intermittent rainfalls occurred over the next several days further saturating soils and keeping river levels and water tables high. The National Weather Service issued numerous flash flood watches and warnings throughout the period. On June 23, a cold front associated with the weather pattern triggered another bout of severe weather, including heavy rains and a tornado. Marinette County was hardest hit by this event, with flash flooding doing substantial damage to the infrastructure in the City of Marinette and the Village of Crivitz. Homes and businesses also sustained various degrees of damage. On June 25, another storm occurred with high winds and heavy rains. In Clark County, the City of Abbotsford was particularly impacted, with several businesses and homes sustaining tornado damage. Numerous trees were downed and two minor injuries were reported. Dunn County was also affected with numerous trees down and the Rural Electric Cooperative sustaining damage.

The impact of the storms was tremendous to the public, private and agricultural sectors. More than 350 residences incurred minor damage with basement flooding and sewer backup. A number of individuals were evacuated from their homes during the height of the flooding, oftentimes because access was totally cut-off. Detours caused others to drive many miles out of their way to get to their homes or places of business. Local emergency crews and volunteers helped sandbag around residences and businesses in an attempt to minimize damages. Private well contamination and septic tank problems were also reported.

The agricultural sector in the impacted counties reported damage to cranberries, potatoes, sweet corn, peas, snap beans, corn, soybeans, oats, barley, ginseng and alfalfa. In some cases it was too late to replant. The storms took their greatest toll on the public sector. Roads were severely damaged with washouts, scouring, culverts washed away and bridges. In Clark and Dunn counties high winds and tornadoes blocked roads with debris and downed power and utility lines. In the City of Marinette storm sewers were damaged or collapsed with damages to infrastructure at more than \$500,000. Similar situations were experienced in numerous other communities in the eight affected counties.

WEM received 104 applications from local governments for Public Assistance and distributed \$4,495,653 million through the program. The Farm Service Agency made emergency loans available to farmers in 30 counties (the original 8 plus 22 contiguous counties).

Hazard Mitigation (HMGP) funds available for the declaration were \$662,603 with \$496,952 representing the 75% federal share with the state and local match of \$82,825.50 each. WEM received 38 pre-applications totaling \$7.5 million. The pre-applications included 8 for acquisitions, 13 structural, 6 road and culverts, 2 educational, 4 power related, and 4 other.

Disaster declaration 1429-DR was followed by 1432-DR declared September 10th. The amount of HMGP funds available combined from both disasters was less than \$2 million. Since the declarations were so close together and the amount of funds was limited, the decision was made to pool the HMGP funds available from both declarations and use to fund projects that

met the state's priority. Upon review of the formal applications and completion of the benefit-cost analyses the following applications were submitted to FEMA and approved for funding.

B.12 HMGP APPLICANTS FOR FEMA 1429-DR		
Applicant	County	Amount
Crandon, City of	Forest	\$ 21,000
Curtis, Village of	Clark	\$ 60,000
Elm Grove, Village of	Waukesha	\$208,401
Oliver, Village of	Douglas	\$255,100
Portage County	Portage	\$ 40,849
State Management Costs	WEM	\$ 77,253
TOTAL		\$662,603

Three applications included acquisition with the other two for the development of all hazard mitigation plans. Funds allocated for the declaration and approved totaled \$662,603 with actual expenditures of \$607,609. Appendix C identifies the projects and actual amounts awarded to date for the declaration.

FEMA 1432-DRI-WI

On September 10, 2002, the President declared a major disaster for Polk, Rusk and Taylor Counties for Individual and Public Assistance along with 16 contiguous counties for Individual Assistance as a result of severe storms, tornadoes and flooding that occurred September 2-6, 2002.

Severe weather began early in the morning on September 2, 2002. Heavy rains occurred in the far western counties of the State. In Polk County Village of Osceola the rains caused an old mill dam to breach and floodwaters crashed through a mobile home park. The torrent continued downstream, overtopping a second dam and causing extensive road damage. Other townships in the county were also affected by almost 5 inches of rain. The storms continued to intensify as the day progressed, prompting the National Weather Service to issue Severe Thunderstorm or Tornado Watches for much of the northern half of the State. The National Weather Service confirmed a total of six tornadoes, two each in Marathon and Fond du Lac Counties and one each in the Taylor and Rusk Counties.

The initial thunderstorms that developed in Burnett and Polk Counties intensified into supercells as they entered into Rusk and Sawyer Counties around 4:30 p.m. and produced a F3 tornado that destroyed homes and businesses in Ladysmith in Rusk County. Forty minutes later another supercell thunderstorm moved across southwest Taylor County and spawned a tornado that moved through the Town of Gilman where it blew the roof off the high school. The same storm system moved east into Marathon County and produced a F0 tornado near Athens and a F1 tornado in the northern suburbs of Wausau.

The tornado in Taylor and Rusk Counties was the most devastating, particularly in Rusk County. It touched down at approximately 4:20 p.m. about one and one-half miles west-southwest of downtown Ladysmith and remained on the ground for approximately 30 minutes. It traveled at about 30 mph. It left a path of destruction 15 miles long and one-quarter mile wide. For part of its track in downtown Ladysmith it was rated an F3 on the Fujita scale, the rest of the track was F2 intensity. Once outside Ladysmith the tornado dissipated to an F1 level. The tornado in Taylor County, F2 intensity, touched down at 5:11 p.m. near Gilman and lifted at 5:50 p.m. west of Medford.

The impact of the tornadoes and storms was tremendous to the public and private sectors. More than 200 residences incurred various degrees of damage. In Ladysmith, population just under 4,000, more than 32 homes were destroyed, 71 incurred major damage and 110 minor damage. Twenty-four businesses were destroyed and 11 incurred major damage. Those businesses employed about 160 individuals either full or part time. The economic impact of the event in Ladysmith was estimated at \$29.5 million.

Under the Housing Program over \$125,000 was distributed to 95 households. A total of \$250,635 was distributed to 66 applicants under the Individual and Family Grant Program. WEM received 52 applications from local governments for Public Assistance and distributed over \$2,743,600 through the program.

Utilizing FEMA HMTAP (Hazard Mitigation Technical Assistance Program) funds, the report *Bracing for the Future: Construction Techniques to Protect against Future Wind Damage in Ladysmith* was developed in partnership with FEMA, WEM and the City of Ladysmith. The report identified the different types of damages sustained to both residential and commercial structures as well as the Gilman High School along with explanation as to the cause. The report further outlined wind-damage reduction techniques along with relative costs. The mitigation strategies in the report focused on construction enhancements that would allow a building or structure to resist winds above the current building code. The report can be found on WEM's website at <http://emergencymanagement.wi.gov>.

Hazard Mitigation (HMGP) funds available for the declaration were \$1,089,584 with \$817,188 representing the 75% federal share with the state and local match of \$136,198 each. WEM received 25 pre-applications totaling \$7.5 million. Several of the pre-applications were also submitted under 1429-DR. The pre-applications included 7 for acquisitions and 11 structural measures.

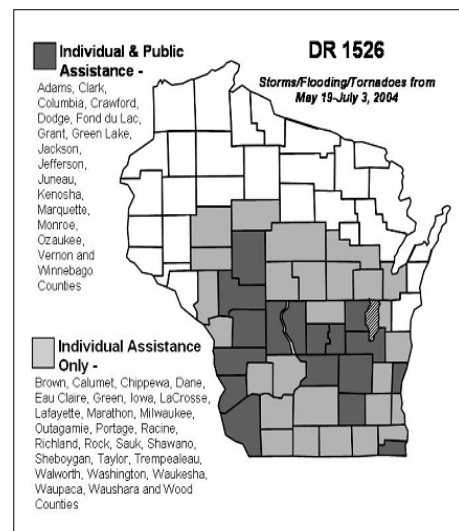
As stated previously, since declarations 1429-DR and 1432-DR were so close together and the amount of funds was limited, the decision was made to pool the HMGP funds available from both declarations and use to fund projects that met the state's priority. Upon review of formal applications and completion of the benefit-cost analyses the following applications were submitted to FEMA and approved for funding.

B.13 HMGP APPLICANTS FOR FEMA 1432-DR		
Applicant	County	Amount
Ferryville, Village of	Crawford	\$ 74,500
Oliver, Village of	Douglas	\$ 150,600
Osceola, Village of	Polk	\$ 543,140
Polk County	Polk	\$ 60,000
Portage County	Portage	\$ 6,800
Rusk County	Rusk	\$ 29,250
Rusk County	Rusk	\$ 29,856
St. Croix Falls, City of	Polk	\$ 84,950
State Management Costs	WEM	\$ 110,488
TOTAL		\$1,089,584

The applications included 4 acquisitions, 2 purchase and distribution of weather alert radios, and 2 for the development of all hazard mitigation plans. Funds allocated for the declaration and approved totaled \$1,089,584 with actual expenditures of \$755,243. Appendix C identifies the projects and actual amounts awarded to date for the declaration.

FEMA 1526-DR-WI

On June 18, 2004, the President declared a major disaster as a result of severe storms and flooding that began on May 19th. The following counties were declared for the Public Assistance Program: Clark, Columbia, Crawford, Dodge, Fond du Lac, Grant, Green Lake, Kenosha, Ozaukee, Vernon, and Winnebago Counties. Individual Assistance was declared for Columbia, Dodge, Fond du Lac, Jefferson, Kenosha, Ozaukee, and Winnebago. On July 2, 2004, 6 more counties were added for Public Assistance and 37 for Individual Assistance bringing the total number of counties to 44 (17 for Public Assistance and 44 for Individual Assistance.) This would be the greatest number of declared counties in one summer since 1993 when 47 counties received federal aid. The declaration initially covered damages that occurred between May 19 and July 3, 2004. On October 8th, based on a request by the Governor submitted on July 8th, the incident period was reopened to cover damages that occurred beginning May 7 through July 3, 2004.



Rainfall during early May left soils saturated and rivers and stream banks near full. This set the stage for the overland and riverine flooding that occurred in the latter half of the month when a second period of record precipitation occurred. According to the National Weather Service, at

some official observation sites in southern Wisconsin, new all-time May precipitation records were set. In some cases, new all-time monthly records were broken. Repeated rains persisted over the southern half of Wisconsin during most of May and through June. Repeated rounds of thunderstorms with heavy rains caused record or near record flooding along the Fox, Rock, Crawfish, Kickapoo and Fond du Lac Rivers, among many others. In the latter part of June, subsequent to the original declaration, severe storms, flooding and tornadoes occurred in additional counties.

Columbia and Dodge Counties reported damages to roads, homes and businesses as a result of heavy rains that occurred over a 24-hour period on June 9-10 when up to 9 inches of rain fell. Especially hard hit was the small community of Randolph. Over 250 homes and 15 businesses reported basement or first floor flooding. Heavy rains caused damage to the Cambria Dam, washing out a major state highway. The City of Fond du Lac and the Village of North Fond du Lac also incurred significant damages in addition to evacuating approximately 300 homes.

Damage to private residences and businesses was tremendous. The Preliminary Damage Assessment (PDA) reports indicated that more than 5,000 primary residences were damaged to varying degrees. Some had water in them for weeks. Many had collapsed, cracked or bulging basement walls and foundations. The PDA indicated that about 62% of those affected are low to moderate income and that almost all of the structures sustaining damage were uninsured. Tourism was also significantly impacted. Many parks and trails were damaged and/or destroyed. Several dams were threatened and incurred damages.

The agricultural sector also sustained considerable damage. This is very significant in that most of the affected counties have economies dependent on agriculture. Many early plantings of crops were washed out by the torrential rains.

Then on the evening of June 23rd severe thunderstorms swept across the State spawning 16 confirmed tornados, killing one person and causing millions in damages. The date ranks fourth in the number of tornadoes striking Wisconsin on a single day. The storm created a path three miles wide by nine miles long in Adams County causing significant damages in the Towns of Easton and New Chester. A tornado touched down in a campground in Warrens in Monroe County injuring 6 people. An F3 tornado in Markesan, Green Lake County, caused extensive tree and building damage. One person was killed when the tornado destroyed his home. Tornadoes touched down in Dane, Green Lake, Dodge, Fond du Lac, Marquette, Outagamie, and Portage counties. The tornadoes ranged in strength from F0 to F3.

Over 8,000 people applied for federal assistance with close to 2,978 households approved for \$5,100,075 under the Housing Assistance Program. Over 1,975 were approved for \$1,468,795 million in Other Needs Assistance. Over 2,000 people have applied for Disaster Unemployment Assistance, with 224 claims approved in the amount of \$156,041. The Small Business Administration received over 1,300 applications for low-interest loans with 349 approved for \$9.9 million. 386 communities have applied to the Public Assistance Program with grants approved in the amount of \$14,245,186.

During the Disaster Field Operations, a data collection effort was conducted in Jefferson (Blackhawk Island area) and Kenosha Counties (Fox River area.) Damaged structures were inventoried and information collected for potential mitigation opportunities. Both Counties have been implementing buyout programs since the 1993 floods and indicated their intent to apply for additional HMGP funds. The structure inventory will assist the counties in determining which properties should be considered for mitigation as well as assist in completing the HMGP application. In addition, success stories were documented and completed for both counties on past mitigation efforts. The stories, as well as other success stories, can be found on WEM's website at <http://emergencymanagement.wi.gov> and FEMA's website at <http://www.fema.gov/mitigationbp/sstoryfind.do>.

The potential for substantially damaged structures in the floodplain was high. Therefore, FEMA, WDNR and WEM staff conducted Substantial Damage Training Workshops in Madison, Oshkosh, Waukesha, and Portage. The training will assist those officials responsible for determining structures that may be substantially damaged in accordance with their local floodplain ordinance. FEMA and WDNR staff provided additional technical assistance to several communities.

This was the first declaration where the program received 7.5% of the Individual and Public Assistance Programs, versus 15%. WEM received 73 pre-applications totaling \$15.6 million. Pre-applications were reviewed, scored and ranked. Projects that met State priorities and made the biggest impact on reducing future disaster costs were considered for funding.

B.14 HMGP PRE-APPLICATIONS FOR FEMA 1526-DR BY TYPE		
Number	Type	Amount
9	Acquisition	\$ 4,978,500
1	Floodproofing	\$ 24,950
4	Studies	\$ 791,000
4	Warning systems	\$ 197,790
9	Hazard Mitigation Plans	\$ 328,000
10	Roadwork	\$ 739,919
5	Sewer	\$ 2,218,000
22	Structural	\$ 2,194,150
9	Miscellaneous	\$ 4,168,563
73	TOTAL	\$15,640,872

The HMGP allocation for the disaster was \$1,847,086. Three planning grants under the 7% allocation were funded; 3 projects under the 5% allocation for the purchase and distribution of NOAA weather radios; and 4 projects for acquisition and demolition of floodprone properties. The following projects were funded.

B.15 HMGP APPLICANTS FOR FEMA 1526-DR		
Applicant	County	Amount
Columbia County	Columbia	\$ 45,000
Dodge County	Dodge	\$ 50,000
Eau Claire County	Eau Claire	\$ 30,000
Oshkosh, City of	Winnebago	\$ 411,050
Oneida County	Oneida	\$ 25,000
Kenosha County	Kenosha	\$ 798,470
Jackson County	Jackson	\$ 6,080
Grant County	Grant	\$ 286,470
Ferryville, Village	Crawford	\$ 45,811
Dodge County	Dodge	\$ 34,508
State Management Costs	All	\$ 114,697
TOTAL		\$1,847,086

Funds allocated for the declaration and approved totaled \$1,847,086 with actual expenditures of \$1,648,364. Appendix C identifies the projects and actual amounts awarded to date for the declaration.

FEMA-3249-EM-WI

In response to Hurricane Katrina, the State Emergency Operations Centers (EOC) was activated from September 6-20, 2005. Through the EOC WEM processed requests from the Gulf States for assistance through the Emergency Management Assistance Compact (EMAC). Over 50 individuals traveled to the Gulf States through the EMAC. On September 8, 2005, Governor Doyle requested the President declare an emergency declaration for the State of Wisconsin as a result of Hurricane Katrina that occurred on August 29, 2005. The emergency declaration was requested to cover 100% of the costs associated with providing emergency shelter and mass care for the evacuees that were arriving in the State from the Gulf States. The emergency declaration was granted on September 13th. WEM was responsible for administering the emergency declaration. In addition to the evacuees arriving from Hurricane Katrina, costs associated with evacuees from Hurricane Rita were also later included.

On September 6th, the Governor advised FEMA that Wisconsin was prepared to provide shelter for up to 1,150 evacuees at the Tommy G. Thompson Youth Center (950) at Wisconsin State Fair Park and the South Milwaukee Community Center (250.) The Tommy G. Thompson Youth Center was designated as the shelter to receive evacuees from Hurricanes Katrina and Rita. The shelter was managed by the American Red Cross and the Salvation Army. On September 8th, 170 evacuees, along with 26 animals, arrived via two FEMA-charted flights. The shelter which closed November 1, 2005, housed 365 evacuees, including some who self-evacuated. Most

evacuees were placed in housing with some going to hotels. The American Red Cross served 827 cases. The highest number of households registered with FEMA identifying that they were in Wisconsin was 1,994 on October 26, 2005.

Under the emergency declaration issued by the President eligible costs would be reimbursed 100% through the Public Assistance Program. This included costs incurred by State agencies and local governments in response to Hurricanes Katrina and Rita. Those costs included shelter and transitional housing costs for evacuees. Cost incurred in the emergency declaration totaled \$1,120,372.

FEMA 1719-DR-WI

On August 26, 2007, President Bush declared a major disaster as a result of severe storms and flooding that began on August 18th. The following counties were declared eligible for the Individual Assistance Program (IA): Crawford, La Crosse, Richland, Sauk and Vernon. The Hazard Mitigation Grant Program was declared eligible statewide. On August 31, the Governor requested that the following counties be declared for IA: Columbia, Dane, Grant, Green, Iowa, Jefferson, Kenosha, Racine and Rock. The Governor also requested a Public Assistance (PA) request for Crawford, Dane, La Crosse, Richland, Sauk, and Vernon counties. Amendment 2 to the disaster declaration included 9 additional counties for IA (Columbia, Dane, Grant, Green, Iowa, Jefferson, Kenosha, Racine and Rock) and 5 counties (Crawford, La Crosse, Richland, Sauk and Vernon) for PA.

Heavy rainfall began on August 18 and continued through the week. Soils became saturated and rivers and streams overflowed their banks. At some official observation sites in southern Wisconsin, new all-time August 24-hour precipitation records were set, Gays Mills (7.41 inches), Prairie du Chien (6.52 inches) and Viroqua (9.23 inches), and in La Crosse County and a new all-time monthly records were set for any month of the year with 17.00 inches of rainfall, according to the National Weather Service. The cause of the storms and record precipitation was an unusually stagnant weather pattern that persisted over the southwestern half of Wisconsin from August 18 to 31. Repeated rounds of thunderstorms with heavy rains caused record or near record flooding along the Kickapoo (crested 6 feet above flood stage), Pine, Fox, Rock and Crawfish Rivers, among many others.

Damage to private residences and businesses was tremendous. Some residences had water in them for days. Many residences had cracked or bulging basement walls and foundations. Many affected residents were low to moderate income and almost all of them sustaining damage were uninsured. Many businesses were also affected.

The agricultural sector sustained considerable damage. This is very significant in that most of the declared counties have economies dependent on agriculture. The Wisconsin Farm Services Office had requested an Administrator's Designation for physical loans.

Over 4,000 people applied for federal assistance with 2,902 households approved for \$7,495,433 under the Housing Assistance Program. Another 651 were approved for \$499,236 in Other

Needs Assistance. The Small Business Administration approved 234 low-interest loans for over \$6 million. The Public Assistance Program approved 144 grants to state and local governments, and eligible private non-profit organizations for a total of \$12,828,586.

B.16 HMGP PRE-APPLICATIONS FOR FEMA 1719-DR BY TYPE		
Number	Type	Amount
8	Acquisition	\$12,534,493
2	Floodproofing	\$ 255,250
7	Warning systems	\$ 395,121
13	Hazard Mitigation Plans	\$ 405,927
5	Roadwork	\$ 131,088
4	Sewer	\$ 588,475
6	Structural	\$ 316,096
1	Miscellaneous	\$ 5,664
46	TOTAL	\$14,632,114

Pre-applications were reviewed, scored and ranked. Projects that met the State priorities and make the biggest impact on reducing future disaster costs were considered for funding. Wisconsin has an approved "enhanced" state mitigation plan, therefore, eligible for 20% of the Public and Individual Assistance Programs. This declaration would be the first for the State to receive the additional HMGP funding. The HMGP allocation for the disaster would be \$5,552,079. Three planning grants (2 for plan updates to meet the 5-year plan requirement) under the 7% allocation were funded; 2 projects for elevation; and 5 projects for acquisition and demolition of floodprone properties. Funding was approved for a project under the 5% allocation for an automated, high water warning system for dams in Vernon County. The following projects were approved:

B.17 HMGP APPLICANTS FOR FEMA 1719-DR		
Applicant	County	Amount
Chaseburg, Village of	Crawford	\$1,806,675
Crawford County	Crawford	\$ 40,000
Gays Mills, Village of	Crawford	\$1,429,866
Kenosha County	Kenosha	\$1,392,414
Mount Pleasant, Village of	Racine	\$ 263,400
Oregon, Village	Dane	\$ 105,920
Richland County	Richland	\$ 36,000
Soldiers Grove, Village of	Crawford	\$ 152,781
Vernon County	Vernon	\$ 40,000

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Vernon County	Vernon	\$ 114,000
State Management	All	\$ 171,023
TOTAL		\$5,552,079

Projects are complete, with a HMGP closeout date of April 10, 2014. Funds allocated for the declaration and approved totaled \$5,552,079. As projects are completed, any unspent funds are reallocated to those with a cost overrun. As of October 10, 2016, expenditures on the approved grants totaled \$4,162,230.83, with federal expenditures totaling \$3,247,233.93.

FEMA-3285-EM-WI

A major snowfall began on February 5 and continued through February 7, 2008. The event included heavy snowfall, strong gusty winds out of the north and even thunder. The heavy snow fell at the rate of one to three inches per hour in some of the hardest hit areas. Several locations in Rock, Walworth, Jefferson and Ozaukee counties reported the highest amounts of 20 to 21 inches. Numerous locations in the 13 counties (Dane, Dodge, Green, Jefferson, Kenosha, Lafayette, Milwaukee, Ozaukee, Racine, Rock, Walworth, Washington and Waukesha) included in this request reported amounts between 12 and 19 inches. Wind speeds between 15 to 25 mph, with gusts up to 35 mph and isolated gusts reported at 60 mph, created near blizzard or white out conditions especially in rural areas. Visibilities of less than ¼ mile were common and drifts of 2 to 4 feet made travel extremely dangerous.

It is important to note that the February 5 – 7 event is just one of many snowfalls that occurred in southern Wisconsin since December 1, 2007. In fact, Madison received more than 100 inches of snow this season, making it the snowiest winter on record (previous record was 76.1 inches). The Madison area received measurable snowfall on more than 50 days since December 1, 2007.

The repeated snowfalls, and particularly the February 5-7 storm, inflicted hardships on many Wisconsin communities and totally depleted snow removal budgets. Schools across much of southern Wisconsin have been closed on more than one occasion. The storms also forced the cancellation of numerous air flights from the Milwaukee and Dane County airports. The snow also curtailed shopping activity at retail establishments and malls have been closed due to treacherous travel conditions.

Snow depths in many areas were at record levels. These snow depths made it increasingly difficult to find places to put the snow. It was piled high at street intersections and around fire hydrants, increasing the risk to public safety from traffic accidents and residential fires. The unusual depths also made it difficult for homeowners and businesses to keep sidewalks cleared, increased the hazards for pedestrian traffic, especially school children and the disabled.

On March 19, 2008, the President declared a snow emergency in the State of Wisconsin. This declaration was based on emergency measures performed to save lives and protect public health and safety resulting from record snow and near record snow during the period of February 5-6, 2008. The counties declared were Dane, Dodge, Green, Jefferson, Milwaukee,

Rock, Walworth and Washington counties for emergency protective measures (Category B) under the Public Assistance program for any continuous 48-hour period during or proximate to the incident period. On April 18, 2008, the FEMA-State Agreement was amended to include Kenosha, Racine and Waukesha counties to the snow emergency. Funding was provided to 475 eligible applicants totaling \$11,291,568.

FEMA 1768-DR-WI

Severe weather began on June 5, 2008 with dozens of thunderstorms and tornado watches and warnings issued. Heavy rainfall, hail, damaging winds and several tornadoes were reported. Next, a warm weather front tracked from west to east across Wisconsin on Saturday, June 7. This event coincided with a moist and unstable air mass moving northward triggering an outbreak of severe weather and heavy rains throughout the afternoon and continuing into the next morning. Numerous super cell thunderstorms developed over the state spawning tornadoes, funnel clouds, rotating wall clouds and flash flooding over all of southern Wisconsin. On Sunday, June 8, the warm, moist air lingered in the state when a cold front tracked east out of the northern plains. A line of thunderstorms tracked across the state ahead of the front producing severe thunderstorms and heavy rains. The rains combined with the already saturated soils worsened the flooding conditions necessitating rescues, evacuations, road closures and sandbagging. The continuing weather pattern persisted on Monday, Tuesday, and Wednesday (June 9-11.) On Thursday, June 12, a slow moving cold front combined with warm moist air again passed through the state producing tornadoes, severe thunderstorms, and heavy rainfall. Collectively amounts ranged from 6 to over 15 inches. The greatest amount was 15.35 inches south of Portage in Columbia County. Depending on location, 24-hour and monthly rainfall records were established. All of this rain fell on top of a ground that was saturated due to all-time record winter snowfalls of 70 to 122 inches across southern Wisconsin which were roughly double normal amounts. At least 38 river gauge sites set new all-time record- high crests; in some cases exceeding flood stage by 6 to over 11 feet. The Baraboo River in Baraboo crested at 11.48 feet over flood stage. In some cases, rivers remained in flood stage into late July, and many low spots in farm fields still had standing water into September. From June 7 to 13, there were 20 tornadoes reported where the average number in a year for Wisconsin is 21.

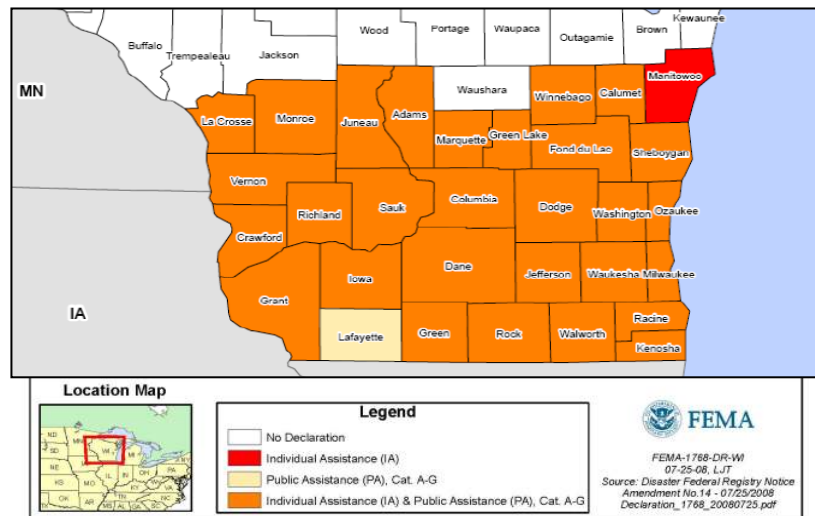
The State EOC was activated 24/7 from June 7-24. Interstates and hundreds of roads were closed making travel very difficult. WEM provided over 700,000 sandbags to communities in the impacted area. Thirty-five shelters were open and served 2,623 people. Over 77,000 meals were served. Over 160 waste water treatment plans diverted 90 million gallons of sewage. There were three confirmed deaths. Damages were in excess of \$926 million.

Small rural and urban communities alike were devastated by the repeated flooding and storms. Tens of thousands of homes, businesses and farms were damaged or destroyed. Damage to public facilities is in the tens of millions of dollars. Both the agriculture and tourism industries, representing the heart of state and local economies, will suffer significantly. The worst flooding occurred on the Baraboo, Kickapoo, Rock, Fox (northern and southeastern) and Crawfish Rivers. Many of the communities are still recovering from flooding that occurred ten months ago.

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resulting in federal disaster declaration 1719-DR-WI. In some cases, the June 2008 flooding was worse than the 1993 flooding.

On June 9, Governor Jim Doyle declared a State of Emergency for 30 counties. On June 13, the Governor requested a presidential declaration for 6 counties. On June 14, President Bush declared the following counties eligible for the Individual Assistance (IA) Program: Columbia, Crawford, Milwaukee, Sauk and Vernon. Subsequently, the following 26 counties were added to the declaration: Adams, Calumet, Dane, Dodge, Fond du Lac, Grant, Green, Green Lake, Iowa, Jefferson, Juneau, Kenosha, La Crosse, LaFayette, Marquette, Manitowoc, Monroe, Ozaukee, Racine, Richland, Rock, Sheboygan, Walworth, Washington, Waukesha, and Winnebago. Twenty-nine communities were declared for both Public and Individual Assistance. Manitowoc County was declared for Individual Assistance only and Lafayette County for Public Assistance bringing the total to 31 counties. The incident period was June 5 through July 25, 2008.



Over 40,000 people applied for Individual Assistance with nearly 24,000 households receiving housing assistance totaling over \$50 million with over 9,000 households approved for Other Needs Assistance totaling \$6.5 million. The Small Business Administration approved nearly 2,000 low-interest loans for individuals and businesses totaling over \$46 million; nearly 1,400 flood insurance claims were paid totaling over \$12 million; and 10,000 people visited a Disaster Recovery Center. A total of 847 communities were eligible for funding through the Public Assistance Program. Over 3,000 project worksheets with over \$62 million approved in the Public Assistance Program. This disaster was the largest ever in the State.

Due to the extensive damages, Governor Doyle created the Wisconsin Recovery Task Force (WRTF). This Task Force was instructed to focus on mitigation, agriculture, business, housing, human needs, and infrastructure concerns. The Task Force was comprised of many state and federal agencies. Ultimately, the mission of the WRTF was to assist individuals, businesses, and communities to recover quickly, safely, and with more resistance to future disasters. The primary goal of the WRTF was to identify the unmet needs of the communities and citizens of Wisconsin

and assist them during the recovery. A WRTF report was presented to the Governor in November 2008 and can be downloaded at http://www.emergencymanagement.wi.gov/recovery/docs/Wisconsin_Recovery_TaskForce_2008.pdf. The WRTF continued to meet to implement the recommendations of the report and to support long term recovery efforts in hardest impacted communities.

The Wisconsin Hazard Mitigation Team (WHMT) played an integral part in identifying the key players that comprise the Wisconsin Recovery Task Force. Members of the WHMT are members of the Mitigation Subcommittee. Without the Wisconsin Hazard Mitigation Team, it is very likely that the Wisconsin Recovery Task Force would not have been created as quickly as it was.

This disaster was considered an "incident of national significance." As a result FEMA activated ESF-14, Long Term Recovery, for the first time in the state. ESF-14 provided 5 FEMA employees and 8 contractors for long-term recovery. The Village of Gays Mills was flooded in the 2007 disaster and again flooded in June 2008. Both events were greater than the 500 year flood and caused substantial damage to the Village's residential and business district. The Village received HMGP assistance as a result of the 2007 flood when it was hit with the second flood. The Village was unsure if it should consider relocation of the town. The Team worked with the community of Gays Mills in developing a long term recovery plan that identified potential relocation sites and potential funding sources. In addition, they worked with Rock Springs to address recovery issues. Information gathered from these planning efforts assisted with recovery in other impacted communities.

The Recovery Plan process for Gays Mills involved a series of meeting and workshops for the community. On October 20, 2008, the ESF-14 team made a presentation of the draft plan to the community. At that meeting, priorities were discussed and representatives from WEM, the Mississippi River Regional Planning Commission, USDA-Rural Development were present. The final plan was presented to the community on October 31, 2008.

However, the interagency cooperation and effort did not end when the ESF-14 Team left. WEM coordinated two strategy meetings on November 19, 2008 and December 2, 2008 with several member of the WHMT/WRTF. The Department of Commerce, USDA-Rural Development, the Mississippi River Regional Planning Commission, FEMA, EDA, HUD WHEDA, Coulee CAP and WEM attended the meeting and reviewed all of the projects identified in the Flood Recovery Plan. Through discussion, the agencies identified which projects were possibly fundable by their programs and which were not. Ultimately, the task of the group was to package funding to assist in as many projects as possible.

On December 15, 2008, all of the agencies met with the Gays Mills Long Range Planning Committee and other interested citizens to discuss the funding options available. The State Hazard Mitigation Officer led the meeting and discussed which agencies could potentially fund which projects. It was a very productive meeting which provided direction and hope for the community.

Two relocation sites just north of the existing downtown were purchased by the Village. The site known as North Mills will be used for mixed use of residential housing and businesses. Four multi-family townhouses and residential housing were constructed at the new site. Construction of a mercantile center for businesses and a Community Commerce Center that houses the Village Hall, library, community center and a community kitchen were completed. In addition, the grocery store, gas station, and funeral home relocated to the new site. A second site north of North Mills includes a new EMS facility and Public Works building as well as additional businesses. The Village would to see a small health clinic and assisted living facility at this site in the future. FEMA, WEM, EDA, USDA-Rural Development, State Department of Commerce, State Department of Transportation, State Department of Health Services as well as private investors have all been sources of funding.



Mercantile Center



Community Commerce Center

In addition to activating ESF-14, FEMA deployed the Mitigation Assessment Team (MAT) to conduct engineering analyses to determine causes of failures and successes of structures within the declared area. A report was completed that contained recommendations that the state, communities, and organizations/agencies could take to reduce future damages and protect lives and property.

All counties in the State of Wisconsin are eligible to apply for assistance under the Hazard Mitigation Grant Program (HMGP). WEM received 118 pre-applications totaling \$40 million. Based on the number of destroyed homes, the priority of acquisition and demolition of substantially damaged structures was established early after the disaster. The State received 18 buyout applications for over 230 properties totaling nearly \$35 million.

Since Wisconsin has an approved "enhanced" state hazard mitigation plan, it was eligible for 20% of the Public and Individual Assistance Programs. The HMGP allocation for the disaster was \$30,875,884. Ten planning grants (7 for plan updates to meet the five-year plan requirement) were funded. The remaining funding was awarded to 17 communities for acquisition and demolition of flood damaged structures with majority substantially damaged and uninhabitable. The following communities received approved project grants:

B.18 HMGP PROJECT GRANT APPLICANTS FOR FEMA 1768-DR		
Applicant	County	Amount
Elroy, City of	Juneau	\$ 572,000
Excelsior, Town of	Sauk	\$ 121,800
Fond du Lac, City of	Fond du Lac	\$1,642,410
Gays Mills, Village of	Crawford	\$1,098,006
Grant County	Grant	\$ 467,300
Janesville, City of	Rock	\$1,244,750
Jefferson County	Jefferson	\$8,087,673
Jefferson, City of	Jefferson	\$ 499,830
Kenosha County	Kenosha	\$2,488,118
LaFarge, Village of	Vernon	\$1,195,674
Paddock Lake, Village of	Kenosha	\$ 688,610
Reedsburg, City of	Sauk	\$2,602,770
Richland Center, City of	Richland	\$ 113,500
Rock County	Rock	\$1,172,709
Rock Springs, Village of	Sauk	\$2,512,786
Spring Green, Town of	Sauk	\$5,377,624
Sugar Creek, Town of	Walworth	\$ 722,513
TOTAL		\$30,608,073

In addition the following received planning grants:

B.19 HMGP PLANNING GRANT APPLICANTS FOR FEMA 1768-DR		
Applicant	County	Amount
Avoca, Village of	Iowa	\$ 28,560
Burnett County	Burnett	\$ 30,000
Green County	Green	\$ 9,270
Green Lake County	Green Lake	\$ 36,000
Iowa County	Iowa	\$ 48,360
Juneau County	Juneau	\$ 14,857
Kenosha County	Kenosha	\$ 40,000
Milwaukee County	Milwaukee	\$ 11,510
Rock County	Rock	\$ 30,000
Sauk County	Sauk	\$ 19,245
TOTAL		\$267,802

The declaration was closed on June 7, 2016. Federal funds allocated for the declaration and approved totaled \$30,875,884. Actual expenditures totaled \$24,363,352 including management costs. Due to deductions for duplication of benefits (which was unknown at the time of approval) the actual amount spent on all of the projects was less than the amount approved and obligated resulting in excess funds being returned. Duplication of benefits included funds received through flood insurance claims, FEMA Individual Assistance and any other assistance provided. Through the declaration 195 properties were acquired and demolished with nearly all of them identified as substantially damaged. It is worth noting that the State Department of Commerce provided funding through Community Development Block Grants (supplemental funds) to the subrecipients to cover the 12.5% local match.

FEMA-1933-DR-WI

During the afternoon and into the evening hours on July 22, 2010, a persistent band of strong to severe thunderstorms developed and moved through the south central and southeastern portions of the state. Individual storms within the system moved quite fast, however the line containing these storms did not, resulting in the storms repeatedly training or moving over the same area. Reports of 3 to 4 inches of rain were widespread along and on either side of the I-94 corridor, with locally higher amounts of 5 to 8 inches. The heaviest rainfall occurred in Milwaukee County, where hourly rainfall amounts of 2 to 4 inches were reported. One local television station on the northeast side of the City of Milwaukee measured 7 inches of rain in approximately 2.5 hours. Mitchell Field recorded 5.61 inches of rain for the day, which is a record for that date. This also is the second highest daily rainfall total on record for Milwaukee.

It was this same frontal boundary that affected Grant County in southwestern Wisconsin from July 22 through 24. During the morning of July 22 widespread rainfall totals of 1 to 2 inches occurred. The next system moved into the southwest part of the state in the afternoon and early evening hours of the 22nd and dumped between 8 and 10 inches of rain in the southern third of Grant County. The final round of heavy rain occurred from the evening hours of the July 23 through the morning hours of July 24 and produced another 2 to 4 inches of rain on areas already saturated. The resulting flash flooding was devastating for Grant County, which is a sparsely populated rural area.

On July 23, Governor Jim Doyle declared a State of Emergency for Milwaukee County. On July 31, the Governor requested a presidential declaration for Grant, Milwaukee and Waukesha Counties. On August 11, the President declared Grant and Milwaukee Counties eligible for the Public Assistance (PA) program. On September 7, 2010, Calumet County, which was also heavily impacted by the storm system, was added on to the Public Assistance declaration. September 18, 2010, the counties of Milwaukee and Grant were declared eligible for FEMA's Individual Assistance (IA) programs.

Over 33,000 people applied for Individual Assistance with over 16,000 households receiving housing assistance totaling over \$45 million and nearly 15,000 households approved for Other

Needs Assistance totaling \$13 million. A total of 92 communities are eligible for funding through the Public Assistance Program with over \$20 million approved in the Public Assistance Program.

All counties in the State of Wisconsin are eligible to apply for assistance under the Hazard Mitigation Grant Program (HMGP). After review, scoring and ranking the pre-applications formal applications were sent to 52 communities totaling \$29,348,299.

Since Wisconsin has an approved "enhanced" state hazard mitigation plan, it was eligible for 20% of the Public and Individual Assistance Programs. The HMGP allocation for the disaster was \$21,338,532. The State received \$34 million in project applications, however, benefits on several projects did not exceed the cost of the project, therefore, not cost-effective and ineligible.

The State submitted 22 project and 18 planning applications totaling \$13,366,821. Two projects were withdrawn, and one was determined ineligible. This was much less than the amount of funds available. The State solicited applications a second time in an attempt to utilize all of the available funding. In addition, several applications originally submitted for funding through the Pre-Disaster Mitigation Program were withdrawn and submitted for funding through the declaration. This was the first time that the State was unable to submit enough eligible projects for the total allocated funds.

In July 2015 FEMA announced the HMGP Pilot Closeout for Uncommitted Open Disasters from 2010 through 2013. This provided states with uncommitted funds a chance to fund additional projects. The requirements were the declaration had to be open and uncommitted funds could only be used to amend applications submitted within the original application period. It allowed for expanded scopes of works. The state reached out to the original applicants and submitted amendments to three grants to acquire and demolish an additional eight properties. Additional funds were obligated in the amount of \$1,381,492 (\$1,036,113 federal share).

The following project grants were approved:

B.20 HMGP PROJECT GRANT APPLICANTS FOR FEMA 1933-DR		
Applicant	County	Amount
Brookfield, City of	Waukesha	\$23,000
Clark Electric Cooperative	Clark	\$15,425
Clark County	Clark	\$141,533
Clark County	Clark	\$33,000
Glendale, City of*	Milwaukee	\$1,594,393
Green County	Green	\$68,100
Jefferson County*	Jefferson	\$2,073,360
Lisbon, Town*	Waukesha	\$558,245
Loyal, City of	Clark	\$198,476

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Lyons, Town of	Walworth	\$852,000
Marquette County	Marquette	\$4,552
Neillsville, City of	Clark	\$162,629
Oshkosh, City of	Winnebago	\$2,064,738
Pine Valley, Town of	Clark	\$146,146
Portage County	Portage	\$85,301
Prairie du Chien	Crawford	\$241,850
Trempealeau County	Trempealeau	\$182,206
Vienna, Town of	Dane	\$274,901
Whitefish Bay, Village of*	Milwaukee	\$5,294,408
TOTAL		\$14,014,263

*Received additional funds under the Uncommitted Funds Pilot

The following planning grants were approved:

B.21 HMGP PLANNING GRANT APPLICANTS FOR FEMA 1933-DR		
Applicant	County	Amount
Bayfield County	Bayfield	\$ 40,000
Calumet County	Calumet	\$ 47,322
Columbia County	Columbia	\$ 18,152
Grant County	Grant	\$ 51,972
Ho-Chunk Nation	N/A	\$ 31,600
Iron County	Iron	\$ 27,340
Jackson County	Jackson	\$ 40,001
Jefferson County	Jefferson	\$ 19,429
La Crosse County	La Crosse	\$ 50,000
Langlade County	Langlade	\$ 40,000
Lincoln County	Lincoln	\$ 35,000
Marinette County	Marinette	\$ 33,623
Marquette County	Marquette	\$ 18,686
Ozaukee County	Ozaukee	\$ 32,800
Portage County	Portage	\$ 42,027
Rusk County	Price, Rusk, Sawyer, Taylor	\$ 159,910
Sheboygan County	Sheboygan	\$ 35,446
Waupaca County	Waupaca	\$46,880

TOTAL		\$770,188
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The declaration closeout date is March 21, 2017. To date 13 project and 16 planning grants are closed. Total funds expended to date including management costs is \$11,932,369.

FEMA-1944-DR-WI

A potent, early-fall storm system brought waves of very heavy rain to western into central Wisconsin starting late on Wednesday, September 23, 2010 and continued into early Friday, September 24, 2010. This was due to an unusually moist air mass over the Central Plains and a stationary front that aligned just south of Interstate 90. This rain strengthened the stationary front over the area, locking in the trigger for prolonged rain and thunderstorms Wednesday night. By morning on September 24, a band of 4 to 8 inches of rain had fallen with many reports of flooding. Rain continued, but lightened throughout the day on Thursday, September 23. The National Weather Service stated the precipitation that fell during this period was 300-700% above the normal that typically falls in late September.

The rains caused river levels to rise rapidly, with record or near record crests on the Black and Trempealeau Rivers. The Yellow River at Babcock, in Wood County, crested at the highest level ever recorded at the site, reaching 6.4 feet above flood stage. The larger or main rivers, including the Chippewa, Black, Trempealeau, Wisconsin, Mississippi and Kickapoo were all impacted. The situation was exacerbated by the fact that Wisconsin experienced an abnormally wet summer, soils were already saturated and many rivers were at relatively high levels prior to the onset of the storms.

On September 23, Governor Jim Doyle declared a State of Emergency for Trempealeau, Jackson and Clark Counties. It was subsequently amended to include Buffalo, Columbia, Marathon, Portage and Wood Counties. On October 14, the Governor requested a presidential declaration as a result of flooding and severe storms beginning on September 22 and continued through October 9 for Buffalo, Clark, Jackson, Juneau, LaCrosse, Marathon, Portage, Taylor, Trempealeau and Wood Counties for the Public Assistance (PA) program.

A federal declaration for Public Assistance was granted on October 21 for the requested counties with the exception of LaCrosse County. All counties in the State of Wisconsin are eligible to apply for assistance under the Hazard Mitigation Grant Program (HMGP).

A total of 196 communities were eligible for funding with over \$5.4 million approved in the Public Assistance Program.

All counties in the State of Wisconsin are eligible to apply for assistance under the Hazard Mitigation Grant Program (HMGP). WEM received 32 pre-applications totaling \$3.8 million. Through the formal application process, WEM received ten applications totaling \$1,597,375.

Since Wisconsin has an approved "enhanced" state hazard mitigation plan, it was eligible for 20% of the Public Assistance Programs. The HMGP allocation for the disaster was \$1,058,284.

The following grants were approved:

B.22 HMGP PLANNING GRANT APPLICANTS FOR FEMA 1944-DR		
Applicant	County	Amount
Walworth County	Walworth	\$ 19,429
TOTAL		\$19,429

B.23 HMGP PROJECT GRANT APPLICANTS FOR FEMA 1944-DR		
Applicant	County	Amount
Columbia County	Colombia	\$ 19,350
Marathon County	Marathon	\$ 882,825
Marathon City, Village	Marathon	\$ 95,000
Oneida County	Oneida	\$ 25,000
TOTAL		\$1,022,175

Project applications included river gauges, NOAA weather radios and two for acquisition and demolition of 8 properties. Projects are complete and the declaration was closed on September 16, 2015. Actual expenditures totaled \$852,521.

FEMA-1966-DR-WI

During the overnight hours of February 1-2, 2011, a powerful low pressure center passing south of Wisconsin produced blizzard conditions across much of southern Wisconsin. Snow associated with the system began in the mid-afternoon hours in far southern Wisconsin and pushed northward into the state through the evening. The snowstorm was accompanied by winds of 40 to 50 miles per hour with localized gusts of up to 60 miles per hour. This excessive wind caused blizzard conditions from early on the evening of February 1, 2011, through the early morning hours of February 2, 2011. In addition to the blizzard, several inches of snow fell on January 31, 2011, with light lake effect snow in the eastern half of the area throughout the day on February 1, 2011.

Snowfall totals in Milwaukee broke the one-day record on February 2, 2011, with 9.1 inches falling and an accumulation of 19.6 inches in 48 hours. Madison similarly experienced snowfall totals breaking the one-day record at 8.1 inches and a three-day accumulation of 18.7 inches. Twelve to 16 inches of snow fell along Highway 29 between Green Bay and Wausau.

As a result of this storm, many county and local roads were deemed impassible, as well as portions of Interstates 94 and 43. The Wisconsin National Guard and Department of Natural Resources were activated to look for any stranded motorists. The blizzard conditions also caused the closure of Milwaukee's Mitchell Field Airport.

On April 5, 2011, a Major Presidential Disaster Declaration was granted, resulting in federal assistance to eligible applicants in 10 counties designated for FEMA Public Assistance for winter storm and snowstorm damage that occurred between January 31 and February 3, 2011, and hazard mitigation throughout the state. The declared Counties included: Dane, Dodge, Grant, Iowa, Kenosha, Lafayette, Milwaukee, Racine, Walworth, and Washington.

A total of 470 communities were eligible for funding in the amount of \$10,869,140 through the Public Assistance Program.

All counties in the State of Wisconsin are eligible to apply for assistance under the Hazard Mitigation Grant Program (HMGP). Since Wisconsin has an approved "enhanced" state hazard mitigation plan, it was eligible for 20% of the Public Assistance Programs. The HMGP allocation was \$2,169,413. The state submitted five project and seven planning grants totaling \$3,946,131. Three of the planning grants were submitted with \$0 request as well as two project grants. One project was for two safe rooms with funding provided for one.

The following grants were approved:

B.24 HMGP PLANNING GRANT APPLICANTS FOR FEMA 1966-DR		
Applicant	County	Amount
Darlington, City of	Lafayette	\$ 16,000
Forest County	Forest	\$ 40,000
Manitowoc County	Manitowoc	\$ 50,888
Richland County	Richland	\$ 21,057
UW-River Falls	Pierce, St. Croix	\$ 19,812
TOTAL		\$147,757

B.25 HMGP PROJECT GRANT APPLICANTS FOR FEMA 1966-DR		
Applicant	County	Amount
Bagley, Village of	Grant	\$ 401,545
Madison, City of	Dane	\$ 1,568,210

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WEM Webinars	Dane	\$ 51,900
TOTAL		\$2,021,655

The projected closeout is March 18, 2017. Five the grants are closed with expenditures to date total \$2,176,467.

FEMA-4076-DR-WI

During the period of June 19-20, 2012, heavy rains caused rising waters and flash flooding in parts of Northern Wisconsin. During the height of the flooding many roads were inundated and had to be closed. Culverts were washed out as normally calm streams and tributaries turned into rushing torrents. The overall impact of this storm was magnified in that it was the fifth time in a year and the second time in three weeks that the counties of Ashland, Bayfield, and Douglas, in addition to the Red Cliff Band of Lake Superior Chippewa were hit with devastating weather.

The most significant impact of these storms was the economic toll created locally. The initial estimates for the June-20 were \$2,300,000 for the counties of Ashland, Bayfield, and Douglas. Most municipalities had just replaced culverts, gravel, and pavement from the 2012 Memorial Day storms when the June 19-20 storms struck. 677 homes reported water and/or sewage in their basements with 19 reported as major. These homes represent 4% of the occupied homes in Douglas County. The other serious disruption was the function and services of the University of Wisconsin-Superior (UW-S), potentially delaying school opening. Initial estimates to the flooded power plant, power distribution tunnels, and 14 buildings with water damage were from \$8,700,000 to \$11,000,000. The power plant had over 35 feet of water inside, with more than a foot on the ground floor, and filled to the top in the basement and sub-basement. The library had in excess of 175,000 books removed for possible restoration. All three affected counties are very rural in nature, with economies based primarily on agriculture and tourism, which were affected heavily by the storms.

On August 2, 2012, President Obama declared a Major Presidential Disaster, resulting in federal assistance to eligible applicants in 3 counties and 1 tribal nation designated for FEMA Public Assistance for high water and flooding damage that occurred between June 19-20, and hazard mitigation throughout the state. The declared counties were Ashland, Bayfield, and Douglas, and the declared nation was the Red Cliff band of Lake Superior Chippewa.

A total of 50 communities were eligible for funding in the amount of \$12,254,454 through the Public Assistance program.

All counties in the State of Wisconsin are eligible to apply for assistance under the Hazard Mitigation Grant Program (HMGP). Since Wisconsin has an approved "enhanced" state hazard mitigation plan, it was eligible for 20% of the Public Assistance Programs. The HMGP allocation was \$2,105,069 for the declaration. Three planning grants originally submitted under declaration 1966-DR were resubmitted under this declaration and approved for funding. Ten projects were submitted with eight approved. A second safe room for the Village of Bagley that

was originally submitted under declaration 1966-DR was submitted in this declaration and was approved.

The following grants were approved:

B.26 HMGP PLANNING GRANT APPLICANTS FOR FEMA 4076-DR		
Applicant	County	Amount
Adams County	Adams	\$ 40,000
Oconto County	Oconto	\$ 50,888
Washburn County	Washburn	\$ 23,314
TOTAL		\$114,202

B.27 HMGP PROJECT GRANT APPLICANTS FOR FEMA 4076-DR		
Applicant	County	Amount
Bagley, Village of	Grant	\$ 403,250
Bayfield County Gen.	Bayfield	\$ 91,000
Bayfield County SR	Bayfield	\$ 317,483
Clover, Town of	Bayfield	\$ 66,220
Crawford County	Crawford	\$ 215,375
Dunn County	Dunn	\$ 198,390
River Falls, City of	Pierce, St. Croix	\$ 666,471
Richland Center, City	Richland	\$ 32,678
TOTAL		\$1,990,867

The projected closeout is June 18, 2017. Five grants are closed with expenditures to date total \$2,028,363.

FEMA-4141-DR-WI

During the period of June 20-28, 2013, parts of Wisconsin experienced historic 24-hour, 48-hour, 72-hour, and 7-day rainfall amounts. The basic weather set-up for the June 2013 heavy rains and flooding was very similar to the June 2008 situation. There were several rounds of thunderstorm activity persisting for 3 to 9 hours that occurred mostly at night over a stretch of a week. Each round resulted in 3 to 6 inches of rain affecting parts of northwestern through southwestern and south-central Wisconsin within a 24-hour period. Total rainfall amounts for the June 20-28 period in the worst-hit area ranged from 8 to over 13 inches, which was greater than 600% above normal for the week. Although the heaviest rains and flooding in the June 20-28 period were not as widespread as the record June 2008 flooding in southern Wisconsin, on a local basis, the impact was just as profound.

Governor Scott Walker declared a State of Emergency in Ashland, Crawford, Grant, Iowa, Richland, St. Croix, and Vernon Counties on June 26, 2013. The Order was later amended to add Bayfield, Dane, Rock, and Sauk Counties, and the Red Cliff Band of Lake Superior Chippewa and to correct the event date. This Order directed all state agencies to assist those counties as appropriate in the response and recovery efforts, and authorized the call to state active duty such elements of the Wisconsin National Guard as the Adjutant General deemed necessary to assist civil authorities.

On August 8, 2013 a Major Presidential Disaster was declared, resulting in federal assistance to eligible applicants in 8 counties and 1 Native American nation for flooding damage that occurred between June 20-13, 2013, and hazard mitigation throughout the state. The declared Counties included: Ashland, Bayfield, Crawford, Iowa, Richland, St. Croix, and Vernon, and the affected nation was the Red Cliff Band of the Lake Superior Chippewa in Bayfield County.

A total of 134 communities are eligible for funding through the Public Assistance program with \$7,857,258 approved. Since Wisconsin has an approved "enhanced" state hazard mitigation plan, it was eligible for 20% of the Public Assistance Programs. The HMGP allocation was \$1,524,748. The state received 44 pre-applications totaling over \$27 million. The State submitted two planning and five project grants to FEMA that were approved. Four of the five projects were for acquisition and demolition of floodplain properties. To date one grant is closed and funds disbursed in the amount of \$661,697. The projected closeout for the declaration is February 6, 2018.

The following grants were approved:

B.28 HMGP PLANNING GRANT APPLICANTS FOR FEMA 4141-DR		
Applicant	County	Amount
Dane County	Dane	\$ 33,777.00
Door County	Door	\$ 33,000.00
TOTAL		\$66,777.00

B.29 HMGP PROJECT GRANT APPLICANTS FOR FEMA 4141-DR		
Applicant	County	Amount
Gays Mills, Village	Crawford	\$ 143,800
Glendale, City	Milwaukee	\$ 499,990
Ozaukee County	Ozaukee	\$ 200,975
Richmond, Town of	Walworth	\$ 6,794
Vernon County	Vernon	\$ 606,410
TOTAL		\$1,457,969

FEMA-4276-DR-WI

Beginning on Monday, July 11 and extending through Tuesday, July 12, 2016, multiple rounds of severe thunderstorms impacted much of east central to northeast Minnesota and northwest Wisconsin. During a 24-hour period the area received eight to 12 inches of precipitation with the worst of the heavy rain and resulting flash flooding occurring in the evening hours. As an example, according to the National Weather Service, the area one mile west-south-west of the Town of Saxon recorded 9.80 inches of rain in a 24-hour period ending on July 12, 2016. In the area extending from Danbury in Burnett County to Hurley in Iron County the majority of the total precipitation fell within just eight hours. In addition, a bow echo type storm moved across northern Iron County and caused tremendous amounts of damage at Saxon Harbor. The harbor was devastated by the flooding and debris carried by the many creeks, rivers, and streams that converge in the immediate area.

These storms resulted in widespread flash flooding across the region causing numerous road closures including the multiple-day closure of U.S. Highway 2, a major transportation corridor across northern Wisconsin. The flooding and damage to roadways was so severe in northwestern Wisconsin that residents and visitors were advised not to travel within much of the area due to washouts and inundated roadways. The timing of these storms also came during the peak tourist season in these areas of the state.

Tragically, this event resulted in the loss of four lives and caused numerous injuries and medical emergency calls to local first responders. Immediately following the storm many volunteer organizations and private sector partners provided assistance to residents impacted by the rainstorm and flooding.

This event and the resulting damage have had a significant negative impact on the residents and communities of the area. Many of the area's state highways, county highways, and local roads were inundated with water and debris and had to be closed. Culverts and bridges were washed out, resulting in long detour routes for residents and the trucking industry. Highway crews were busy implementing road closures, making temporary road repairs, and cleaning up debris. Multiple harbors and marinas on Lake Superior received significant damage. In particular, Saxon Harbor in Iron County, was housing 70 boats at the time of the July 12 storm. Of these, at least 12 were destroyed, 19 beached, and 6 sunk and later recovered. Two boats remain unaccounted for, while two vehicles and three camper trailers were also lost. Thirty-three floating docks were swept out into the lake and destroyed. The fish hatchery and wild rice operations of the Bad River Tribe also sustained major damage.

This event has impacted over 350 homes and left behind tens of millions of dollars in public sector damage. Both the initial storm and a secondary severe thunderstorm event on July 21, 2016 caused tens of thousands of power outages across the northern part of the state and

generated large amounts of debris. The stress on citizens and local emergency response efforts was further intensified by high heat index levels that occurred statewide from July 20-22.

On August 9, 2016, a Major Presidential Disaster Declaration was granted, resulting in federal assistance to eligible applicants in 8 counties and 1 Native American nation for flooding damage that occurred between July 11-12, 2016, and hazard mitigation throughout the state. The declared Counties included: Ashland, Bayfield, Burnett, Douglas, Florence, Iron, Sawyer, and Washburn, and the affected nation was the Bad River Band of the Lake Superior Chippewa.

A total of 102 communities have applied for funding through the Public Assistance Program. The disaster is so recent total amounts applied for in the Public Assistance Program are pending. The Preliminary Damage Assessment resulted in estimated eligible damages of \$25,687,005. Since Wisconsin has an approved "enhanced" state hazard mitigation plan, it was eligible for 20% of the Public Assistance Programs. Based on the PDA, the estimate for HMGP for the declaration is \$5 million.

FEMA-4288-DR-WI

Beginning on Wednesday, September 21 and extending through Thursday, September 22, 2016, multiple rounds of severe thunderstorms impacted much of west central through southwestern Wisconsin. During this two day period, the area received over ten inches of precipitation; the heaviest rains resulted in flash flooding throughout the evening hours. Since the area experienced saturated soils and vegetative conditions due to high rainfalls over the preceding month, stream, riverine, and urban flooding developed faster than normal, resulting in mudslides, washouts, and flooding on roadways.

The result was widespread flash flooding across the region, causing numerous road closures, including the multiple-day closure of State Highway 35, a major transportation corridor along the Mississippi River in western Wisconsin. Closing main roads at this time was especially troubling, since these storms and resulting road closures coincided with a peak tourism weekend in western and central Wisconsin.

Tragically, this event included the loss of two lives in Vernon County. On September 22, 2016, a man died after a mudslide swept down a hill and destroyed his home while he was inside. A second man died on September 23, 2016, while pulling a horse trailer with his pickup truck; he drowned after swiftly moving water on top of a road surface swept his vehicle downstream.

This event impacted over 485 homes and left behind tens of millions of dollars in public sector damage. Both the initial storm and the flooded rivers through September 29, 2016 caused excessive road damage and generated large amounts of debris. For many of these counties, this was the fourth major storm and flood event since June 2016, resulting in intensified stresses for citizens and local emergency response efforts.

On October 20, 2016, a Major Presidential Disaster Declaration was granted, resulting in federal assistance to eligible applicants in 10 counties for flooding damage that occurred between September 21-22, 2016, and hazard mitigation throughout the state. The declared Counties included: Adams, Chippewa, Clark, Crawford, Jackson, Juneau, La Crosse, Monroe, Richland, and Vernon.

Several of the communities within the declared area have successfully implemented mitigation projects. As a result of those projects, disaster losses were reduced. This is an opportunity to highlight those successes and losses avoided.

This disaster was declared at the time of writing the State of Wisconsin's Hazard Mitigation Plan update, and as such the estimated number of communities eligible for Public Assistance and the total amounts applied for in Public Assistance are pending as well as the allocation for HMGP. T

Disaster 4288-DR was the 36th Presidential Declaration in Wisconsin since 1971, and the 22nd disaster since 1990. The state had multiple declarations in 1990, 1992, 1998, 2002, and 2010. Declarations have been granted in every year since 1990 except for 1994, 1995, 2003, 2005, 2006, 2009, 2014, and 2015. In the last 25 years, all but one of the State's 72 counties, Oconto, has been directly affected by disaster declarations. Additionally, in the years since 1990, 7 requests for declarations have been denied. The unprecedented frequency and severity of natural disasters established in the last decade has continued into the present one.

Disasters 1933, 1966, 4076, 4141, 4276, and 4288 are still open declarations, therefore, final expenditures are presently unknown.

It is a goal of WEM to never return HMGP funds to FEMA if at all possible. To that end, as projects are completed, any unspent funds are obligated to other projects incurring funding shortfalls. Appendix D identifies the projects and actual amounts awarded to date for the declarations.

B.30 HMGP FUNDING HISTORY, 1991-2016		
Disaster	Initial Amount Allocated/Approved	Total Expended
912-DR-WI	\$108,684	\$ 108,684
959-DR-WI	\$38,868	\$ 38,868
963-DR-WI	\$376,374	\$ 376,374
964-DR-WI	\$391,074	\$ 391,074
994-DR-WI	\$14,004,403	\$14,004,403
1131-DR-WI	\$344,527	\$ 344,527
1180-DR-WI	\$6,265,003	\$ 6,021,672
1236-DR-WI	\$1,962,465	\$ 1,767,681

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1238-DR-WI	\$4,450,421	\$ 4,392,207
1284-DR-WI	\$812,059	\$ 806,000
1332-DR-WI	\$4,424,019	\$ 4,045,598
1369-DR-WI	\$4,390,075	\$ 3,992,074
1429-DR-WI	\$662,603	\$ 607,609
1432-DR-WI	\$1,089,584	\$ 757,725
1526-DR-WI	\$1,847,086	\$ 1,632,722
1719-DR-WI	\$5,552,079	\$4,044,758
1768-DR-WI	\$30,875,884	\$23,350,411
1933-DR-WI	\$21,338,532.	\$14,592,102
1944-DR-WI	\$1,058,284	\$815,901
1966-DR-WI	\$2,169,143	\$2,169,074
4076-DR-WI	\$2,105,069	\$2,094,133
4141-DR-WI	\$1,524,748	\$1,325,681
4276-DR-WI	\$5,000,000*	-
4288-DR-WI	\$2,200,000*	-
TOTAL	\$105,790,984	\$78,358,762.01

*Based on Preliminary Damage Assessment

B.31 NATURAL DISASTER SUMMARY, 1990-2016																																					
Disaster Declaration	874	877	912	959	963	964	994	1994 ND	1996 ND	1131	1180	1998 ND	1236	1238	1998 ND	1284	1332	2000 ND	3163	1369	1429	1432	1526	2005 ND	1719	3285	1768	1933	1944	1966	4076	4141	2013-2014 ND	4276	4288	County/Tribal Total	
County																																					
Adams							1	1									1				1		1				1							1	7		
Ashland																1	1														1	1		1		5	
Barron																	1			1		1														3	
Bayfield																1				1											1	1		1		5	
Brown	1						1																1													3	
Buffalo						1	1						1							1									1							5	
Burnett																	1			1		1												1		4	
Calumet	1						1													1			1				1	1								6	
Chippewa							1											1				1	1										1		1	6	
Clark							1						1								1	1	1						1				1		1	8	
Columbia							1		1				1				1		1				1				1									7	
Crawford	1					1	1					1	1				1			1			1		1		1					1			1	12	
Dane	1		1		1		1					1					1		1				1	1			1	1			1					12	
Dodge							1		1			1					1						1				1	1			1					8	
Door															1					1																2	
Douglas																1				1												1			1	4	
Dunn							1						1	1								1	1													5	
Eau Claire							1					1						1					1													4	
Florence																1																			1		2
Fond du Lac							1		1	1		1											1				1							1			7
Forest																	1																		1		2

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B.31 Continued																																				
Grant	1					1						1				1			1			1			1	1		1		1				10		
Green	1					1		1	1						1		1			1			1	1			1							10		
Green Lake						1													1				1											3		
Iowa	1					1									1				1				1			1		1		1					7	
Iron														1	1															1					3	
Jackson						1	1					1			1				1							1						1			7	
Jefferson			1			1		1											1			1	1												6	
Juneau	1					1	1								1				1				1		1		1					1			8	
Kenosha						1									1		1			1			1	1			1			1					8	
Kewaunee	1																1																			2
La Crosse						1						1					1			1		1		1								1			7	
Lafayette	1					1					1				1				1				1			1			1						7	
Langlade																				1															1	
Lincoln						1														1															2	
Manitowoc	1																1																			2
Marathon						1													1	1	1						1				1				6	
Marinette																			1																	1
Marquette						1														1				1											3	
Menominee						1																														1
Milwaukee						1					1		1			1		1				1			1	1	1		1			1				11
Monroe		1	1			1					1				1				1				1			1							1		8	
Oconto																																				0
Oneida															1	1																				2
Outagamie	1					1												1			1														4	
Ozaukee			1								1	1					1			1				1											6	
Pepin						1	1					1						1																	4	
Pierce						1	1					1						1																	4	
Polk															1					1															2	
Portage						1													1	1	1					1									5	
Price						1									1					1															3	

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B.31 Continued																																					
Racine							1							1			1		1				1			1	1			1							8
Richland	1					1	1					1				1					1		1		1	1				1			1			1	10
Rock	1						1		1				1				1				1			1	1											8	
Rusk							1								1	1			1		1															5	
Sauk	1					1	1		1			1				1					1		1		1	1										9	
Sawyer															1	1					1												1			4	
Shawano							1														1	1														3	
Sheboygan											1		1					1				1				1										5	
St. Croix							1						1						1		1									1						5	
Taylor																					1	1							1							3	
Trempealeau						1	1						1					1			1		1					1								6	
Vernon	1					1	1						1				1			1		1		1		1				1			1		11		
Vilas															1																					1	
Walworth									1							1		1				1			1	1			1							7	
Washburn																1			1		1											1			4		
Washington			1								1	1										1			1	1			1							7	
Waukesha			1								1	1		1		1		1				1			1	1										9	
Waupaca							1														1	1														3	
Waushara				1			1														1		1													4	
Winnebago	1						1												1			1				1					1					6	
Wood							1														1	1	1						1			1				6	
Total Number of Counties per Disaster	17	1	6	1	1	10	47	1	8	2	4	13	14	5	1	10	30	2	14	18	8	19	44	1	5	11	30	3	9	11	3	8	8	9	10		
Tribe																																					
Bad River Band of Lake Superior Chippewa																																1				1	
Forest County Potawatomi Community																																					0
Ho-Chunk Nation																																					0

B.31 Continued																																		
Lac Courte Oreilles Band of Lake Superior Chippewa																																	0	
Lac du Flambeau Band of Lake Superior Chippewa																																	0	
Menominee Nation																																	0	
Mohican Nation, Stockbridge Munsee Band																																	0	
Oneida Tribe of Indians of Wisconsin																																	0	
Red Cliff Band of Lake Superior Chippewa																														1	1			2
St. Croix Band of Chippewa Indians																																	0	
Sokaogon Chippewa Community																																	0	
Total Number of Tribes per Disaster	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		1	
Total Number of Counties & Tribes per Disaster	17	1	6	1	1	10	47	1	8	2	4	13	14	5	1	10	30	2	14	18	8	19	44	1	5	11	30	3	9	11	4	9		