



APPENDIX A - MITIGATION OBJECTIVES

The following objectives contain the detailed action steps on how Dane County will implement the recommendations of this plan, and ultimately make progress towards meeting the plan's goals. Each objective includes a title stating what the project or issue is, followed by specific action steps needed to meet, or implement, the objective. Each objective includes a description of lead and supporting agencies, sources of possible funding or technical assistance, an estimated timeframe for implementation, and estimate of costs associated with it, and the priority. Each objective description includes a 2009 progress report. This captures what progress has been made since the objectives were first developed in 2004. In many cases the County has made significant progress in implementing the objectives of the 2004 HMP and FMPs' and is captured here. Even those objectives that have been completed are preserved in this plan as a record of progress made. In several cases there has been partial or little progress made on objectives. In general this is due to the following:

- Long range activity
- Lack of resources, including staff and funding
- Low priority or shift in priorities

In some cases the objectives identified will be implemented as funding becomes available.

These objectives are summarized in the objective summary table in Chapter 5, where a quick glance allows the reader to see all of the objectives in the plan and how they relate towards the goals and what hazards they are intended to mitigate. The following objectives are listed in the same order as outlined in Table 5.1, generally organized by the goals they are designed to help meet. Objectives specific to each jurisdiction can be referenced in the jurisdictional annexes.

Policy 1.1 *Dane County should provide information on sources of funding and technical assistance to help individuals take actions to decrease their vulnerability.*

Objective 1.1.1 Compile and disseminate mitigation information to help citizens decrease their vulnerability.

Steps:

- 1) Compile information on grant, loan, and technical assistance programs, such as state and federal home weatherization assistance
- 2) Develop a public education strategy
 - a) Determine groups to be targeted
 - b) Determine the best method(s) of communication
 - c) Produce message(s) to be distributed
 - d) Determine timing of distribution
- 3) Implement strategy / distribute information

4) Evaluate effectiveness of strategy and refine

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies:

- Wisconsin Emergency Management
- Other federal, state, and local government agencies

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: Information is available on the website for homeowners and businesses – www.countyofdane.com/emergency/flood.

Objective 1.1.2 Assist eligible manufactured home owners, not within mobile home parks, by applying for Federal hazard mitigation grant funds to retrofit homes with a safe room or other household option.

Steps:

- 1) Determine which mobile home parks have shelters or safe houses
- 2) Survey mobile home owners for reasons why weather shelters are not currently in place
- 3) Work with local units of government and mobile home owners to acquire resources needed to complete shelters and overcome identified barriers
- 4) Explore feasibility of below ground shelters or pre-fabricated safe rooms.

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies:

- Local Units of Government
- Mobile Home Park Owners

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Depends on project. Grant funding would be provided.

2009 Progress: This project is not completed due to lack of funding and staff resources.

Objective 1.1.3 Assist residents of mobile home parks by applying for Federal hazard mitigation grant funds to construct community tornado shelters.

2009 Progress: This project is not completed and deleted due as it is not a county role. The County is focusing its effort on the related objective 3.3.4.

Policy 1.2 *Dane County should facilitate the establishment of public/private partnerships with the local insurance industry, building industry, planners, architects, utilities, urban foresters, and their related associations to better inform and provide technical assistance to individuals about sustainable construction methods and hazard mitigation practices, and create incentives for action.*

Objective 1.2.1 Work with partners to develop and publicize an information clearinghouse on sustainable and disaster resistant construction methods and local resources and use it in a public outreach campaign to encourage property owners to consider hazard mitigation and sustainability when building or remodeling.

Steps:

- 1) Convene group of stakeholders
- 2) Develop public education strategy
- 3) Determine groups to be targeted
- 4) Determine the best method(s) of communication
- 5) Determine what information needs to be communicated
- 6) Produce message(s) / information to be distributed
- 7) Determine timing of distribution
- 8) Implement strategy / distribute information
- 9) Evaluate effectiveness of strategy and refine

Lead Implementation Agency: Participating Partners

Supporting Agencies:

- Dane County Emergency Management
- Wisconsin Emergency Management
- National Weather Service
- Insurance Industry
- Building Industry
- Utilities
- Electric utilities
- Wind turbine manufacturers

-
- Photovoltaic system manufacturers
 - Generator manufacturers
 - Media Outlets

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: Minimal – within staff resources.

2009 Progress: This Objective now incorporates old Objectives 1.2.2-1.2.4. Information has been compiled and posted on the website. More efforts to publicize are needed.

Objective 1.2.2 Work with partners to develop and publicize pilot projects or building models that apply hazard mitigation and sustainable construction techniques.

2009 Progress: This project is incomplete, and has been consolidated into Objective 1.2.1.

Objective 1.2.3 Work with partners to encourage and create incentives for property owners to employ hazard mitigation and sustainable construction techniques when building or remodeling.

2009 Progress: This project is incomplete, and has been consolidated into Objective 1.2.1.

Objective 1.2.4 Work with partners to create incentives for rural residents to install a back-up power source for the pump on their private water well. This should include an assessment of the applicability of renewable energy sources as a potential power supply.

2009 Progress: This project is incomplete, and has been consolidated into Objective 1.2.1.

Objective 1.2.5 Work with partners to provide technical assistance to private property owners for planting, pruning, maintaining, removing, and replacing trees. Also include information on tree care, debris clean up, and recognizing and dealing with hazardous trees.

Steps:

- 1) Convene group of stakeholders
- 2) Determine most appropriate method of providing technical tree care assistance
- 3) Implement method
- 4) Evaluate method

Lead Implementation Agency: Participating Partners

Supporting Agencies:

- Dane County Tree Board
- Dane County Emergency Management
- U.S. Forest Service
- Electric utilities

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: Minimal – existing County resources.

2009 Progress: This project is incomplete, but the County still wants to do this.

Policy 2.1 *Dane County should assist in establishing public/private partnerships with local power, water, and wastewater utilities to further fortify their systems and reduce power outages and related losses caused by natural hazards.*

Objective 2.1.1 Work with partners to develop plans to deploy back-up power sources at critical wastewater lift stations. This should include an assessment of the applicability of renewable energy sources as a potential power supply.

Steps:

- 1) Locate wastewater lift stations without back-up power
- 2) Determine the feasibility of renewable energy
- 3) Determine costs of outfitting lift stations with back-up power
- 4) Deploy back-up power where feasible and necessary

Lead Implementation Agency: Local Utilities

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs:

2009 Progress: This project is incomplete due to public and outside resource needs. This objective is a low priority.

Objective 2.1.2 Work with partners to develop plans to deploy back-up power sources at critical potable water pumping stations. This should include an assessment of the applicability of renewable energy sources as a potential power supply.

Refer to Objective 2.1.1 for guidance.

2009 Progress: This project is incomplete.

Policy 2.2 *Dane County should encourage local businesses to apply structural hazard mitigation and sustainability concepts when building or remodeling their facilities and when constructing residential and commercial buildings for others.*

Objective 2.2.1 Apply the general concepts of Policy 1.2 and Objectives 1.2.1 through 1.2.4 to business facilities.

2009 Progress: Some information is available on the website for flood but more work remains to be done. This project has been consolidated into Objective 1.2.1.

Objective 2.2.2 Facilitate the provision of technical assistance and incentives if available for business owners to provide adequate tornado shelter for employees, customers, and members of the public who may be present at their facilities.

Steps:

- 1) Convene a group of stakeholders
- 2) Develop information and contacts for technical assistance delivery
- 3) Develop incentives for provision of tornado shelters

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies: Business interests

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: To be determined, depending on site specifics.

2009 Progress: This project is ongoing with the County using existing staff.

Objective 2.2.3 Encourage agricultural producers, and dairies to plan for power outages and install back up power supplies. This should include an assessment of the applicability of renewable energy sources as a potential power supply.

Steps:

- 1) Research programs to supply power through wind, sun, gasoline and natural gas
- 2) Determine most cost-effective and sustainable solution
- 3) Help producers use programs and available funding sources to purchase back up power supply

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies:

- UW-Extension
- Electric utilities
- Wind turbine manufacturers
- Photovoltaic cell manufacturers
- Generator manufacturers

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 3-4 years.

Priority: Low

Estimated Costs: To be determined, depending on site specifics.

2009 Progress: This project is incomplete. There has been no activity thus far; however, there is opportunity available with stimulus money for back-up power by use of renewable energy to crucial industries, facilities, and equipment needed to sustain life, industry (economy), and facilities.

Policy 3.1 *The County should assist local governments through training local staff, providing information, forming model plans, and coordinating efforts.*

Objective 3.1.6 Support the bulk purchase of weather alert radios for at-cost redistribution to local residents.

Steps:

- 1) Supply local units of government with information to organize and purchase weather radios for sale to their residents
- 2) Designate an annual weather radio purchase day for local units of government with adjunct press releases

Lead Implementation Agency: Local Units of Government

Supporting Agencies:

- Wisconsin Emergency Management
- National Weather Service
- Dane County Emergency Management

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance

Timeline: Ongoing.

Priority: Moderate

Estimated Costs: None. Radio costs are recovered.

2009 Progress: This project has been implemented and is ongoing. The County conducted a pilot program in 2007 and distributed 2,700 radios; 2008 – 11,000 radios; and 2009 – 5,000 radios. The County orders radios at cost based on need and then the local jurisdictions reimburse the County at cost. This has been a very popular program with nearly all local governments participating at one time or another during the three years the project has been underway.

Objective 3.1.7 Assist local governments in developing hazard mitigation plans that will meet the DMA2000 requirements, address specific local needs, and are consistent with County goals. Encourage local governments to include hazard mitigation concepts in the development of their comprehensive plans.

Steps:

- 1) Develop a biannual progress report on mitigation planning efforts including:
 - a) Projects started
 - b) Projects completed
 - c) Funding acquired
 - d) Positive impacts from projects
 - e) Lessons learned
 - f) Project forecast for next two years
- 2) Distribute progress report to all units of government, encouraging further involvement in mitigation planning
- 3) Integrate report into a comprehensive biannual plan evaluation
- 4) Assist interested local governments in pursuing hazard mitigation plans through established processes

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies:

- Towns Association
- Cities and Villages Association
- Participating Governments

Possible Funding and Technical Assistance:

- Staff Time

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Personnel time as in-kind match to FEMA PDM grant.

2009 Progress: This project is ongoing. During the 2009 Progress of hazard mitigation plan jurisdiction participation went from 13 to 39.

Policy 3.2 *The County should encourage local units of government within the County to employ hazard mitigation concepts when forming, reviewing and updating local ordinances.*

Objective 3.2.1 Assist local units of government in developing plans (possibly through a model ordinance) for managing trees, before, during, and after natural hazard events including, flooding, tornadoes, drought, wildfires, and ice storms.

Steps:

- 1) Convene group of stakeholders
- 2) Design a plan process or ordinance that can be used by local units of government in managing trees for natural hazard events
- 3) Address the following substantive elements
 - a) Proper tree care prior to natural hazard
 - i) Selecting the proper species and location
 - ii) Developing a chain of command for response
 - iii) Call receiving, dispatching, and ranking
 - iv) Damage assessment, repair and reporting
 - v) Agency coordination between utilities, parks departments, and public works
 - vi) Response and clean-up, using Milwaukee as an example
 - vii) Rules and regulations regarding maintenance of trees and debris removal and pickup on private property
 - viii) The effects of different hazards on trees
 - ix) Saving and repairing damaged trees
 - x) Replanting trees
- 4) Disseminate information about the availability of the plan or ordinance in guiding local decision making in natural hazard mitigation

Lead Implementation Agency: Dane County Tree Board

Supporting Agencies:

- Dane County Emergency Management
- Electric Utilities
- Towns Association

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: Has not been implemented due to low priority.

Objective 3.2.2 Encourage local governments to require an interior “safe room” in homes and businesses without basements in their building codes.

Steps:

- 1) Convene group of stakeholders
- 2) Evaluate current state of local code requirements
- 3) Encourage local governments to requires interior safe rooms through
 - a) Developing educational materials
 - b) Assisting with research needs
 - c) Developing incentives, financial and otherwise
- 4) Reevaluate codes for requirements

Lead Implementation Agency: Dane County Planning & Development

Supporting Agencies:

- State of Wisconsin Department of Commerce
- Dane County Emergency Management
- Towns Association
- Cities and Villages Association
- Madison Area Builders Association
- Local Governments

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This is not a County role. If kept as objectives then change to State role.

Objective 3.2.3 Encourage local governments to review local building codes to determine if revisions are needed to improve the ability of structures to withstand greater wind velocities, snow weight, wildfire, and hail impact and establish the means to enforce the requirements.

Steps:

- 1) Convene a group of stakeholders
- 2) Determine what standards or components should or could be included in local building codes to ensure the public's safety, including at least;
 - a) Cross-bracing
 - b) Anchoring of walls to foundation
 - c) Anchoring roof rafters to walls
 - d) Standards to provide wind protection for vulnerable features, such as windows, garage doors, patio doors, doublewide entry doors, siding, and bracing for walls and rafters.
- 3) Determine if these components exist and if standards are too low for natural hazard conditions assessed in plan
- 4) Recommend modification to building code if necessary

Lead Implementation Agency: Dane County Planning & Development

Supporting Agencies:

- Dane County Emergency Management
- Wisconsin State Dept. of Commerce: Safety & Building Division
- Wisconsin Emergency Management
- Madison Area Builders Association

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This is not a County role. If kept as objectives then change to State role.

Objective 3.2.4 If not already in place, encourage local governments to require tie-downs on all manufactured homes and establish the means to enforce the requirements.

Steps:

- 1) Survey local governments about anchor or tie-downs provisions
- 2) Determine why some local governments do not have the requirements
- 3) Educate local units of government and owners of manufactured homes about the risk of damage to their property and the benefits of added safety devices
- 4) Develop a manufactured home anchor or tie-down model ordinance if beneficial to guide governments

Lead Implementation Agency: Dane County Planning & Development

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: Can be accomplished with existing staff resources.

2009 Update: Some local jurisdictions are undertaking this project. Towns of Berry and Dunn, and the Village of Blue Mounds have adopted, or have made it a goal to adopt, a tie-down ordinance.

Objective 3.2.5 If not already in place, encourage local governments to require that mobile home parks have storm shelters with enough capacity to adequately protect all residents of the development.

Steps:

- 1) Convene group of stakeholders
- 2) Evaluate current state code requirements
- 3) Encourage local governments to require that mobile home parks have storm shelters through
 - a) Developing educational materials
 - b) Assisting with research needs
 - c) Developing incentives, financial and otherwise
- 4) Reevaluate codes for requirements

Lead Implementation Agency: Local Governments

Supporting Agencies:

- Dane County Emergency Management
- Towns Association
- Cities and Villages Association

-
- Mobile Home Park Owners
 - Dane County Planning & Development

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: Some local jurisdictions are undertaking this project. The Cities of Fitchburg and Stoughton, the Towns of Berry, Dunn, and Vienna, and the Villages of Blue Mounds, Cambridge, Cottage Grove, DeForest, Maple Bluff, and Marshall have all adopted, or intend to adopt plans for tornado/general storm shelters.

Policy 3.3 *The County should encourage local units of government to apply structural hazard mitigation and sustainability concepts when building or remodeling their facilities.*

Objective 3.3.1 Apply the general concepts of Policy 1.2 and Objectives 1.2.1 through 1.2.4 to local government facilities.

Refer to Objective 1.2.1, and 1.2.4 for guidance.

2009 Progress: This project is not completed. Information is available on the website for homeowners and businesses – www.countyofdane.com/emergency/flood.

Objective 3.3.2 Encourage local governments to provide adequate tornado shelters for employees and constituents who may be present at their facilities.

Steps:

- 1) Conduct an inventory and inspection of existing facilities to ensure the quality, quantity, and accessibility of adequate tornado shelters
- 2) Determine where shelters are not present or inadequate and reasons for absence of inadequacy of shelter
- 3) Assist in acquiring needed resources to retrofit or install shelters

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies: None

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This has not been systematically implemented.

Objective 3.3.3 Assist local governments in applying for pre-disaster mitigation funds to construct storm shelters in public facilities such as parks, fairgrounds or other vulnerable public areas.

Steps:

- 1) Inventory all parks, fairground and public areas in the County without storm shelters
- 2) Determine the needed size and location of storm shelters within parks
- 3) Acquire funding or assist local units of government in acquiring funding to help finance storm shelters in parks

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies: Local units of government

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: Can be accomplished with existing staff resources; to be determined base on site specifics and scope; dependent on grant opportunities.

2009 Progress: This project is ongoing.

Objective 3.3.4 Assist local governments in applying for pre-disaster mitigation funds to construct tornado shelters in mobile home parks.

Steps:

- 1) Determine which mobile home parks have shelters or safe houses
- 2) Survey mobile home park owners for reasons why weather shelters are not currently in place
- 3) Work with local units of government and mobile home park owners to acquire resources needed to complete shelters

Lead Implementation Agency: Dane County Emergency Management

Supporting Agencies:

- Local Units of Government
- Mobile Home Park Owners

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Depends on site availability and shelter sized and design. Grant funding would be provided.

2009 Progress: This project is ongoing. The Town of Dunn has received a grant and is starting a shelter project. The County assisted the Town of Dunn with the grant application, helping develop the building specifications and the shelter operations plan.

Policy 4.1 *The County should broaden existing partnerships with community support groups and service providers to better prepare for and respond to the needs of vulnerable populations in a disaster.*

NOTE: This Policy and the following related objectives were removed from the plan in 2009 as they are being addressed through the County's emergency management program. This was also done to focus the plan on mitigation and not the other phases of emergency management (preparedness, response and recovery).

Objective 4.1.1 Work with partners to develop, exercise, and keep current plans for transporting and sheltering, at-risk populations and cleaning up homes of the physically or mentally handicapped.

Objective 4.1.2 Work with partners to develop an orientation program for newly arriving refugees and immigrants regarding emergency warning, services and assistance available in Dane County.

Objective 4.1.3 Work with partners to develop a method of disseminating multi-lingual hazard warnings for non-English speaking residents of the County.

Objective 4.1.4 Work with partners to create incentives for home healthcare patients to install a back-up power source for the pump on their private water well. This should include an assessment of the applicability of renewable energy sources as a potential power supply.

Objective 4.1.5 Work with partners to develop and implement an on-going public outreach campaign to increase awareness of the services available through First Call for Help (211).

Policy 5.1 *Dane County should encourage owners/operators of critical facilities to employ hazard mitigation and sustainability concepts when building or remodeling their facilities.*

Objective 5.1.1 Apply the general concepts of Policy 1.2 and Objectives 1.2.1 through 1.2.4 to critical facilities.

2009 Progress: This project is incomplete, and has been consolidated into Objective 1.2.1.

Policy 6.1 *The County should employ hazard mitigation concepts and support on-going sustainability concepts when building, remodeling, or otherwise improving its facilities or infrastructure.*

Objective 6.1.1 Review the County's Green Building Policy (Adopted by resolution 299, 1999-2000) and consider revisions to include hazard mitigation and sustainability features of new building and remodeling projects.

Steps:

- 1) Review existing policy
- 2) Investigate options
- 3) Suggest modifications if needed
- 4) Refer to County Board for approval

Lead Implementation Agency: Dane County Administration

Supporting Agencies:

- Dane County Emergency Management
- Dane County Public Works & Transportation

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress. This project is not completed.

Objective 6.1.2 Where feasible, retrofit existing or install new structures in County-owned buildings to ensure adequate shelter from tornadoes.

Steps:

- 1) Conduct an inventory and inspection of facilities to ensure the quality, quantity, and accessibility of adequate tornado shelters
- 2) Educate building managers on the importance of tornado shelters
- 3) Determine where shelters are not present or inadequate and reasons for absence of inadequacy of shelter
- 4) Assist in acquiring needed resources to retrofit or install new structures

Lead Implementation Agency: Dane County Facilities Management

Supporting Agencies:

- Dane County Emergency Management
- Dane County Public Works & Transportation

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs: Existing County capital project funds and potentially other grants (FEMA, PDM)

2009 Progress: Not completed on a systematic basis.

Objective 6.1.3 Decrease the vulnerability of County park users to natural hazards through education and better shelter design.

Steps:

- 1) Inform the public about County park structures' abilities and inabilities to protect them during a natural hazard

-
- 2) Identify and evaluate County parks in need of storm shelters taking into consideration the proximity of shelters outside of parks
 - 3) Retrofit current shelters in parks with campsites to bring them up to storm shelter building standards
 - 4) Consider the number of people in need of shelter when deciding on the size of future storm shelters
 - 5) Acquire funding to help finance storm shelters in parks

Lead Implementation Agency: Dane County Land & Water Resources Department - Parks Division

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance
- County funding

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: To be determined on a case by case basis.

2009 Progress. This project is not completed.

Objective 6.1.4 Install natural barriers beside highways and other roads, and re-grade roadsides to decrease snow on roads focusing on residential developments with limited road access.

Steps:

- 1) Survey County roads to determine location of severe to moderate snow drift and complaint and accident reports
- 2) Determine where road safety can be most improved by the installation of natural barriers
- 3) Determine costs of installing barriers along those roads
- 4) Install barriers along road segments that:
 - a) If blocked, entirely or severely, limit access to residences or critical facilities
 - b) Substantially increase road safety
 - c) Require a minimum of public expenditure
- 5) Evaluate the effectiveness of barriers in reducing traffic problems

Lead Implementation Agency: Dane County Public Works & Transportation

Supporting Agencies: Dane County Emergency Management

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Assistance
- Operating Budget

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs: To be determined.

2009 Progress. Not completed. Since the 2008 blizzard, the highway department has plans to close Interstate in adverse weather. More cutovers will be installed on the Interstate and there will be plowing schedule improvements.

***Policy 6.2** The County should engage in planning and data gathering efforts that make progress toward achieving sustainability while increasing efforts in hazard mitigation.*

Objective 6.2.1 Develop a County drought plan that takes into consideration meteorological, hydrological, agricultural, and socioeconomic drought.

Steps:

- 1) Convene group of stakeholders
- 2) Develop a drought mitigation planning process for local governments and assist them with this process when needed
- 3) Develop substantive elements to be included in contingency plans which fit into the drought mitigation plans
- 4) Develop a model drought ordinance that can easily be adapted to local drought plans
- 5) Facilitate the development and implementation of the three related pieces

Lead Implementation Agency: Partnership

Supporting Agencies:

- Dane County Land & Water Resources Department - Land Conservation Division
- Dane County Emergency Management
- Department of Natural Resources
- DATCP
- Drainage Districts
- Dane County Towns Association
- National Drought Mitigation Center
- Army Corps of Engineers
- US Geological Survey
- NOAA
- UW-Extension

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 5-7 years.

Priority: Low

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project is not completed.

Flood Mitigation Objectives

The following objectives are integrated from the Flood Mitigation Plan.

Objective 1 Implement a voluntary program of property acquisition and relocation for high-risk residences. Assign a high priority to properties with paid flood insurance claims, with special attention given to repetitive loss properties (see objective 2).

Objectives 1 and 2 are closely related and will be resolved through the following process:

Steps:

- 1) Organize a stakeholder planning group;
- 2) Develop criteria to assess risk level;
- 3) Develop and publicize a set of viable flood protection options and methods appropriate for risk level;
- 4) Inventory and prioritize structures at risk;
- 5) Survey property owners to determine interest and assess cost;
- 6) Assist local units of government to identify funding sources to acquire and remove or otherwise protect existing homes.
- 7) Assist local units of government in coordinating grant applications and developing local flood protection programs;
- 8) Use flood occurrences as an educational opportunity and an opportunity to implement programs.

Lead Implementing Agency: Dane County Emergency Management

Supporting Agencies: Local Units of Government

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Hazard Mitigation Grant Program
- FEMA – Flood Mitigation Assistance
- FEMA – Pre-disaster Mitigation
- HUD – Community Development Block Grant
- U.S. Army Corps of Engineers Small Flood Control Projects

-
- DNR – Municipal Flood Control Grant Program

Timeline: Begin immediately, with grant applications and program implementation as funding becomes available.

Priority: High

Estimated Costs: Dependent on project.

2009 Progress: This project is ongoing. Land and Water Resource Department is currently implementing for areas they want to develop, i.e., Village of Oregon. Fish Lake is next on list. But for most others, if their property is in a floodplain, their only options are either to raise house or tear down and leave the land.

Objective 2 Implement a voluntary program of flood protection for high-risk residences. Assign a high priority to properties with paid flood insurance claims, with special attention given to repetitive loss properties.

See Objective 1 for implementation details.

2009 Progress: A pilot program has been implemented by the County with capital budget (\$200,000). The program has been designed to assist local units of government.

Objective 3 Determine the feasibility of reducing the flow of floodwaters over roads by evaluating road elevation and culvert sizing standards for construction and upgrade for all County roads, but especially for roads in low lying or flood prone areas.

2009 Progress: Portions of this project are completed, while others are ongoing. The County has a full-time person on staff that evaluates roadways. Ongoing – Changing elevations as flooding occurs. Areas that still need attention are Hwy 14, Hwy 106, Jefferson County Line.

Objective 4 Develop road shoulder, ditch, and bridge maintenance and upgrade standards to prevent floodwater and stormwater from damaging or washing-out roads and making them impassible.

Objectives 3 and 4 are closely related and will be resolved through the following process:

Steps:

- 1) Review existing inventory of flood prone roads;
- 2) Develop criteria to evaluate and prioritize problems;
- 3) Compile existing road elevation and culvert sizing design standards;
- 4) Evaluate the feasibility of designing roadway water conveyance systems for larger storm events;
- 5) Evaluate effectiveness of culvert aid program as a compliance tool for Town road upgrades;

-
- 6) Develop and disseminate to townships and private property owners Best Management Practices (BMP) for
 - a) Culvert sizing and maintenance on Town roads
 - b) Culvert sizing and maintenance on private driveways
 - c) Ditch protection and maintenance
 - 7) Use flood occurrences as an educational opportunity and an opportunity to implement upgrades.

Lead Implementing Agency: Dane County Highway and Transportation

Possible Funding and Technical Assistance:

- Staff time
- FEMA – Public Assistance Grant Program
- FEMA – Hazard Mitigation Grant Program
- FEMA – Pre-disaster Mitigation Grant Program
- Wisconsin DOT – Flood Damage Aid

Timeline: On-going as staff time is available.

Priority: Moderate - Low

Estimated Costs:

2009 Progress: This project is ongoing. The County continues to inspect bridges every 2 years. Those reports are available. Ongoing riprap placed on road shoulders and ditches.

Objective 5 Formalize a process for considering water flow along and under roadways as one component of the overall water conveyance system.

Steps:

- 1) Develop and implement a process for considering systematic water conveyance issues, upstream and downstream of County highways when designing upgrades;
- 2) Develop and implement a process for considering the impact of planned development on water conveyance when designing County highway upgrades.

Lead Implementing Agency: Dane County Highway and Transportation

Supporting Agencies:

- Dane County Land & Water Resources Department - Land Conservation Division
- Dane County Planning and Development

Possible Funding and Technical Assistance:

- Staff time

Timeline: On-going as staff time is available.

Priority: Moderate

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project has been completed. New developments have requirement for water conveyance by State Code, Dane County, and the WDNR.

Objective 6 Assist local units of government in developing local flood response action plans.

Steps:

- 1) Survey local units of governments to determine need;
- 2) Develop templates describing warning systems and identifying tasks to be accomplished in a flood-fighting response;
- 3) Assist local units of government to:
 - a) Organize stakeholders;
 - b) Assess local flood risks;
 - c) Assess flood prediction and warning information;
 - d) Assess local flood response capabilities and procedures;
 - e) Identify tasks to be completed;
 - f) Identify location of tasks to be completed;
 - g) Identify resources to complete tasks;
 - h) Develop communications systems and procedures;
 - i) Develop procedures and instructions to complete tasks;
 - j) Write and disseminate plans;
 - k) Test, evaluate, and revise plans.

Lead Implementing Agency: Dane County Emergency Management

Supporting Agencies: Local Units of Government

Possible Funding and Technical Assistance:

- Staff Time
- U.S. Army Corps of Engineers - Floodplain Management Services Program

Timeline: Begin immediately

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project is ongoing. The County has coordinated efforts with local jurisdictions for sandbagging, volunteers, and planning.

Objective 7 Improve the flood warning system for areas of the County where floodwaters rise rapidly or impact large numbers of people.

Steps:

- 1) Identify high-risk areas, e.g. Black Earth Creek watershed, Yahara Chain of Lakes;
- 2) Organize stakeholders;
- 3) Assess present flood hazard detection (stream monitoring) and prediction capabilities;
- 4) Identify monitoring and prediction deficiencies;
- 5) Assess communication links and identify deficiencies;
- 6) Develop and implement monitoring and prediction enhancements to address identified weaknesses;
- 7) Develop and implement communications links and warning dissemination process.

Lead Implementing Agency: Dane County Emergency Management

Supporting Agencies: Local Units of Government

Possible Funding and Technical Assistance:

- Staff Time
- U.S. Army Corps of Engineers - Floodplain Management Services Program
- U.S. Geological Survey

Timeline: Begin immediately, implement stream monitoring systems as funding becomes available.

Priority: High

Estimated Costs: Can be accomplished with existing County and local resources.

2009 Progress: Elements of this project are complete. The County worked with National Weather Service to place an automated water gage at Black Earth Creek in Mazomanie. The Tenny Dam EAP completed by Land and Water Resources addresses many of these issues.

Objective 8 Improve the communication system between the County and local units of government when floods occur or are likely to occur.

Steps:

- 1) Explore options for improving the ability of local units of government to report flooding, receive information, and request assistance;
- 2) Formalize communications links and establish procedures;
- 3) Record detailed flood data including location of event, weather conditions, and resulting damages in a geographical database;
- 4) Use data records in on-going assessment of flood problems and effectiveness of response programs.

Lead Implementing Agency: Dane County Emergency Management

Supporting Agencies: Local Units of Government

Possible Funding and Technical Assistance:

- Staff Time
- U.S. Army Corps of Engineers—Floodplain Management Services Program

Timeline: Ongoing

Priority: Moderate

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: Portions of this project are complete, while others are ongoing. The Director of Land and Water Resources Department is in contact with all parties along the Yahara River chain and plans are in place for communications. Ongoing efforts include developing a model for the Yahara River Chain.

Objective 9 Develop comprehensive water management policies for Dane County, considering the connections between land-use, urban growth, and surface water, and ground water issues (see objective 11).

2009 Progress: Portions of this project are complete, while others are ongoing. Storm water management infiltration policy, water body classification, and urban service amendment policy have been completed. Ongoing efforts include a zoning review for relationship between land use and growth issues. All comprehensive plans deal with this.

Objective 10 Discuss formation of a policy that guides or further restricts development around flood prone areas and areas of high flood mitigation value; support policy consistencies between the comprehensive plan and the flood mitigation plan. Lands of potential flood mitigation value are wetlands, floodplain corridors, upland storage, closed depressional basins, hydric soils, and areas of high infiltration potential (see objective 11).

2009 Progress: Portions of this project are complete, while others are ongoing. Completed are: updated floodplain zoning regulations – FEMA Chapter 60; adopted new FIRMs in 2009; and all maps and ordinances are digitized and posted on the County’s website. The Capital Area Regional Planning Commission has and continues to review projects to mitigate impacts.

Objective 11 Discuss urban development around small closed depressional basins that addresses special flooding and stormwater related issues that are unique to these areas.

Objectives 9, 10, and 11 are closely related and will be resolved through the following process:

Steps:

- 1) Meet with the Agriculture, Natural and Cultural Resource County Comprehensive Plan Work Group as needed;

2) Assist in the development of policies.

Lead Implementing Agency: Dane County Planning and Development

Supporting Agencies:

- Dane County Emergency Management
- Dane County Lakes and Watershed Coordinator
- Dane County Land & Water Resources Department - Land Conservation Division
- Capital Area Regional Planning Commission

Possible Funding and Technical Assistance:

- Staff Time
- Wisconsin Comprehensive Planning Grant Program

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project is incomplete.

Objective 12 Assist in the development of watershed-scale stormwater management plans that make possible coordinated management of locally-derived runoff.

Steps:

- 1) Survey municipalities regarding their intent to prepare stormwater management plans;
- 2) Discuss opportunities for coordinating plan development with municipalities intending to prepare plans;
- 3) Assist in coordinated plan development as requested.

Lead Implementing Agency: The CARPC and Dane County Land & Water Resources Department - Land Conservation Division

Supporting Agencies:

- Dane County Lakes and Watershed Commission
- Capital Area Regional Planning Commission

Possible Funding and Technical Assistance:

- Staff Time
- NRCS - Watershed Protection and Flood Prevention
- NRCS - Watershed Surveys and Planning
- DNR – Lake Planning Grants
- DNR – River Planning Grants

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project is ongoing, and a high priority based on money and resources applied on a case by case basis.

Objective 13 Evaluate the County's and other units of governments' erosion control and stormwater management, floodplain zoning, and shoreland zoning ordinances, and NFIP status to determine regulatory deficiencies, necessary improvements, enforcement shortcomings in order to bring governments into compliance and to strengthen and maximize the benefits of current regulations.

Steps:

- 1) Evaluate through the existing staff team and additional DNR staff if necessary, the regulatory deficiencies and enforcement shortcomings in flood-related ordinances and programs;
- 2) Periodically update ordinances as necessary
- 3) Ensure that stop work orders and other means of compliance are being used as authorized by each ordinance;
- 4) Suggest changes to improve enforcement of and compliance with regulations and programs;
- 5) Disperse information as needed to assist municipalities in overcoming deficiencies in local flood-related regulations.

Lead Implementing Agency: Dane County Planning and Development

Supporting Agencies:

- Lakes and Watershed Commission
- Land Conservation Department
- Wisconsin Department of Natural Resources

Possible Funding and Technical Assistance:

- Staff Time

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project is completed, but a portion of the project is ongoing. In 2005 a Programmatic Comprehensive Department Review for all policies, ordinances, plans, etc in the department was completed. The County hired staff to make the necessary changes to

deficiencies found during the review. This review was issued by the county executive and is based on funding and is not a regular activity.

Objective 14 Identify and map areas in the County that have potential flood mitigation value.

Steps:

- 1) Organize a multi-departmental effort;
- 2) Develop criteria for defining and evaluating "flood mitigation value";
- 3) Review existing documents and studies related to these lands;
- 4) Identify past and current protection efforts;
- 5) Generate maps to display past and present preservation efforts and additional areas that are suitable for future preservation or restoration.

Lead Implementing Agency: Dane County Land & Water Resources Department - Land Conservation Division

Supporting Agencies:

- Dane County Land & Water Resources Department - Parks Division
- Dane County Land Information Office
- Dane County Planning and Development
- Dane County Lakes and Watershed Commission
- Capital Area Regional Planning Commission
- USDA - Natural Resources Conservation Service
- Wisconsin Department of Natural Resources

Possible Funding and Technical Assistance:

- Staff time

Timeline: Within 1-2 years.

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project is complete, but improvements are still possible. 2009 FEMA DFIRM Maps, hydric soils maps, and the Dane County Wetland Resource Management Guide were created/modified.

Objective 15 Establish flood mitigation as a criterion for land acquisition and environmental restoration where it would aid in the achievement of flood-reduction goals and conserve and restore land that meets the criteria.

Steps:

- 1) Organize stakeholders;
- 2) Review maps of existing and potential future projects;
- 3) Assign roles and responsibilities of partners and stakeholders;
- 4) Divide projects into achievable pieces;
- 5) Coordinate similar programs to leverage money and efforts;
- 6) Develop implementation plans;
- 7) Revise the Parks and Open Space Plan as needed.

Lead Implementing Agency: Dane County Land & Water Resources Department - Parks Division

Supporting Agencies:

- Dane County Department of Administration
- Dane County Lakes and Watershed Commission
- Dane County/UW Extension
- Dane County Land & Water Resources Department - Land Conservation Division
- Capital Area Regional Planning Commission
- USDA - Natural Resources Conservation Service
- Wisconsin Department of Natural Resources
- Local Units of Government

Possible Funding and Technical Assistance:

- NRCS - Wetland Reserve Program
- USDA - Conservation Reserve Program
- USFWS - Wetland Conservation Fund
- NPS - Trails and Conservation Assistance
- DNR - Aids for the Acquisition and Development of Local Parks
- DNR - River Management Grants
- DNR - Urban Green Space Program,
- Dane County Parks Conservation Fund
- Dane County Parks Conservation Fund Grant Program

Timeline: Ongoing

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project was completed through integration of the Flood Mitigation Plan principles into the Comprehensive Plan. The Dane County Wetland Resource Management Guide has been completed. There are ongoing and current programs regarding wetland restoration and funding available through the County Parks Conservation fund. This project is handled on a case by case basis as land becomes available

Objective 16 Ensure that the Department of Natural Resources affords flood risk as high priority when evaluating the public interest in the lake level orders for the Yahara chain of lakes (see objective 11).

2009 Progress: This project is partially complete and partially ongoing. The Yahara Lake Chain is an artificially managed man-made system. The Director of Land and Water Resources Department manages the Yahara River chain. There are various efforts being conducted to try and balance competing resource uses/interests. The City of Madison has proposed to lower lake levels. This proposal is forcing issues in objectives 16-20 to be evaluated. WDNR is also involved. This is a complex engineering and political problem where a win/win solution may not exist or may be mutually exclusive. This is also a very large system that is slow to respond.

Objective 17 Maintain the levels of the Yahara lakes at the lower limit of the DNR's set operating range as part of a comprehensive strategy that addresses flood risk and the needs of fisheries, recreational interests, agricultural interests and lakeshore property owners (see objective 11).

2009 Progress: This project is partially complete and partially ongoing. The Yahara Lake Chain is an artificially managed man-made system. The Director of Land and Water Resources Department manages the Yahara River chain. There are various efforts being conducted to try and balance competing resource uses/interests. The City of Madison has proposed to lower lake levels. This proposal is forcing issues in objectives 16-20 to be evaluated. WDNR is also involved. This is a complex engineering and political problem where a win/win solution may not exist or may be mutually exclusive. This is also a very large system that is slow to respond.

Objective 18 Develop a coordinated management strategy and a unified plan of operation and maintenance for all control structures on the Yahara River from Tenney Dam to the Stebbinsville Dam. Assure that the responsible agency has the technical expertise and resources to operate and maintain the control structures within the parameters of the plan (see objective 11).

2009 Progress: This project is partially complete and partially ongoing. The Yahara Lake Chain is an artificially managed man-made system. The Director of Land and Water Resources Department manages the Yahara River chain. There are various efforts being conducted to try and balance competing resource uses/interests. The City of Madison has proposed to lower lake levels. This proposal is forcing issues in objectives 16-20 to be evaluated. WDNR is also involved. This is a complex engineering and political problem where a win/win solution may not exist or may be mutually exclusive. This is also a very large system that is slow to respond.

Objective 19 Improve monitoring and modeling of the Yahara River and chain of lakes to develop a better understanding of how the system can be more effectively managed. Include a study of the likelihood and potential impact of a significant weather event to cause Lake Mendota to rise over the top of Tenney Dam (see objective 11).

Lead Implementing Agency:

- Dane County Executive
- Dane County Board of Supervisors

Supporting Agencies:

- Constituency Groups represented by the membership of the Yahara Lakes Advisory Group
- Affected Property Owners

2009 Progress: This project is partially complete and partially ongoing. The Yahara Lake Chain is an artificially managed man-made system. The Director of Land and Water Resources Department manages the Yahara River chain. There are various efforts being conducted to try and balance competing resource uses/interests. The City of Madison has proposed to lower lake levels. This proposal is forcing issues in objectives 16-20 to be evaluated. WDNR is also involved. This is a complex engineering and political problem where a win/win solution may not exist or may be mutually exclusive. This is also a very large system that is slow to respond.

Objective 20 Evaluate methods such as modification of bridge constrictions, aquatic plant removal, dredging, and channel modifications to increase flow conveyance, while respecting in-stream natural and cultural resources.

Steps:

- 1) Organize stakeholders;
- 2) Identify and prioritize projects;
- 3) Assign roles and responsibilities of partners and stakeholders;
- 4) Divide projects into achievable pieces;
- 5) Coordinate similar programs to leverage money and efforts;
- 6) Develop implementation plans;
- 7) Implement plans as funds become available.

Lead Implementing Agency: Department of Natural Resources

Supporting Agencies:

- Dane County Drainage Board
- Dane County Highway and Transportation
- Natural Resources Conservation Service
- U.S. Army Corps of Engineers

Possible Funding and Technical Assistance:

- Staff time
- Dane County Drainage Board
- US Army Corps of Engineers – Snagging and Clearing Program

Timeline: Within 3-4 years.

Priority: Moderate

Estimated Costs: To be determined - can be accomplished with existing staff resources.

2009 Progress: This project is partially complete and partially ongoing. The Director of Land and Water Resources Department manages the Yahara River chain. The City of Madison has proposed to lower lake levels. This proposal is forcing issues in objectives 16-20 to be evaluated. WDNR is also involved.

Objective 21 Identify hot spots or high priority projects involving multiple jurisdictions where watershed level solutions could be applied.

Steps:

- 1) Organize stakeholders;
- 2) Review legal authorities;
- 3) Develop a governance structure;
- 4) Identify and prioritize projects;
- 5) Determine feasibility of proposed projects;
- 6) Assign roles and responsibilities of partners and stakeholders;
- 7) Divide projects into achievable pieces;
- 8) Negotiate agreements with participating local governments;
- 9) Prepare formal agreements;
- 10) Coordinate similar programs to leverage money and efforts;
- 11) Develop implementation plans;
- 12) Implement plans as funds become available.

Lead Implementing Agency: HMPC

Supporting Agencies:

- County Departments
- Capital Area Regional Planning Commission
- Constituency groups
- State and Federal agencies

Possible Funding and Technical Assistance:

- Staff time

Timeline: Begin immediately

Priority: High

Estimated Costs: To be determined - can be accomplished with existing staff resources.

2009 Progress: This project is ongoing in places such as Fish Lake, Crystal Lake, and Highway V in Town of Vienna.

Objective 22 Coordinate funding opportunities to carry out the objectives of the flood mitigation plan including, but not limited to mitigation, land acquisition, regional projects, and flood response activities.

Steps:

- 1) Develop an information sharing network;
- 2) Review existing County plans and programs;
- 3) Utilize the concept of multi-objective mitigation planning, identifying objectives in other County efforts that are consistent with the flood mitigation objectives;
- 4) Review State and Federal programs that also address similar issues;
- 5) Compile reference materials on funding availability and eligibility;
- 6) Provide program information to local units of government and other stakeholders;
- 7) Coordinate similar programs to leverage money and efforts.

Lead Implementing Agency: Dane County Emergency Management

Supporting Agencies: HMPC

Possible Funding and Technical Assistance:

- Staff time

Timeline: This project is ongoing

Priority: High

Estimated Costs: Can be accomplished with existing staff resources.

2009 Progress: This project is ongoing. The buyout in Village of Oregon has been completed with multiple funding sources. CDBG funding has been acquired for Morrisonville sewer improvements.

Objective 23 Launch and update when necessary, an educational program to provide local units of government with important flood-fighting information (see objective 24).

2009 Progress: This project is ongoing. County website has many tools that provide educational information to local governments. The update to the flood maps needed each jurisdiction to formally adopt.

Objective 24 Improve citizen and local elected officials understanding of floodplain maps and floodplain regulations, floodproofing options, development and stormwater management considerations, and other information to assist in good decision-making.

Objectives 23 and 24 are closely related and will be resolved through the following process:

Steps:

- 1) Organize stakeholders and partners;
- 2) Identify and prioritize educational needs;
- 3) Identify and prioritize target audience(s);
- 4) Develop messages;
- 5) Identify dissemination methods;
- 6) Develop and implement an education plan;
- 7) Evaluate progress.

Lead Implementing Agency: Dane County Emergency Management

Supporting Agencies:

- Dane County UW Extension
- Dane County Lakes and Watershed Commission
- Dane County Land & Water Resources Department - Land Conservation Division
- Dane County Planning and Development

Timeline: On going

Priority: Moderate

Estimated Costs: Can be accomplished with existing County and local resources.

2009 Progress: This project is ongoing. The County website has many tools that provide educational information to local governments. The update to the flood maps needs each jurisdiction to formally adopt.

Objective 25 Utilize recently completed DFIRMs in conjunction with other layers to develop a flood risk map based on hydric soils, wetlands, and areas of past damage. Use the map as an educational tool, and also share with real estate agents and local units of government.

Steps:

- 1) Determine flood risk indicators;
- 2) Compile existing data;
- 3) Generate maps;
- 4) Include map display and description as a component of the educational program described above.

Lead Implementing Agency: Land and Water Resources Department.

Supporting Agencies:

- Dane County Planning and Development
- Dane County Land & Water Resources Department - Land Conservation Division
- Dane County Emergency Management

-
- Capital Area Regional Planning Commission

Possible Funding and Technical Assistance:

- Staff time

Timeline: As work schedules and plans allow

Priority: Moderate

Estimated Costs: Low, use available staff time

2009 Progress: Some aspects of this project are complete. This task has been modified from its original title: "Develop and use a flood risk map based on hydric soils, wetlands, and areas of past damage. Consider incorporating a buffer area of 1 foot in elevation above the mapped 100-year floodplain on FIRM maps as an advisory tool."

Objective 26: Pursue Storm Ready Certification from the National Weather Service

Steps:

- 1) Complete necessary NWS paperwork to begin certification process.
- 2) Adopt policies to ensure compliance with NWS guidelines

Lead Implementing Agency: Dane County Office of Emergency Management

Supporting Agencies: Public Safety Communications

Possible Funding and Technical Assistance:

- Staff Time

Timeline: Within 1-2 years.

Priority: High

Cost: Low; can be accomplished with existing staff and within existing department budget.

2009 Progress: New in 2009

Objective 27: Continue to implement sound floodplain management practices through continued compliance with the National Flood Insurance Program, to include evaluating the County's and other units of governments' erosion control and stormwater management, floodplain zoning, and shoreland zoning ordinances, and NFIP status to determine regulatory deficiencies, necessary improvements, enforcement shortcomings in order to bring governments into compliance and to strengthen and maximize the benefits of current regulations.

Steps:

- 1) Evaluate through the existing staff team and additional DNR staff if necessary, the regulatory deficiencies and enforcement shortcomings in flood-related ordinances and programs;
- 2) Periodically update ordinances as necessary
- 3) Ensure that stop work orders and other means of compliance are being used as authorized by each ordinance;
- 4) Suggest changes to improve enforcement of and compliance with regulations and programs;
- 5) Disperse information as needed to assist municipalities in overcoming deficiencies in local flood-related regulations.
- 6) Evaluate the potential costs and benefits of becoming a participant in the Community Rating System.
- 7) Improve floodplain permitting tracking through plans (in progress) to modernize the permitting process into a database environment.

Lead Implementing Agency: Dane County Planning and Development

Supporting Agencies:

- Lakes and Watershed Commission
- Land Conservation Department
- Association of State Floodplain Managers
- Wisconsin Department of Natural Resources

Possible Funding and Technical Assistance:

- Staff Time

Timeline: Ongoing

Priority: High

Estimated Costs: Low; can be accomplished with existing staff and within existing department budget.

2009 Progress: New in 2009, but related to ongoing activities with existing flood related objectives.

Objective 28 Further refine the County's flood risk assessment to include an analysis of cost savings from implementation of floodplain management

Steps:

The 2009 update to the risk assessment needs to be refined; Properties identified in the floodplain with the parcel-DFIRM modeling do not account for elevation or floodproofing that

may be in place. See flood hazard profile for more detail on the issues that this refinement would address.

- 1) Meet with supporting agencies and identify needs in a refined flood risk assessment to include making adjustments to the 2009 risk assessment data to account for properties that may be in the floodplain, but elevated above it; adjust parcel centroids currently identified in the floodplain where air photos or structure footprint information indicate that buildings are outside of flood zones.
- 2) Further analyze 2008 FEMA Individual Assistance claims data to better understand the implications of the damage patterns, most of which was outside of identified floodplains.
- 3) Identify data gaps such as electronic records of floodplain development permits
- 4) Compile existing data;
- 5) Analyze data for accuracy
- 6) Generate analysis of parcels in the floodplain, but development outside or above the 100 year floodplain elevation. Quantify value of this development to assist with measurement of loss avoidance (i.e. cost savings) through the implementation of floodplain management practices.
- 7) Refine loss estimate on structures at risk to flooding, using HAZUS flood depth or DFIRM depth information.
- 8) Capture information in update to this plan
- 9) Include map display and description as a component of the educational program described above.

Lead Implementing Agency: Dane County Land Information Office

Supporting Agencies:

- Dane County Planning and Development
- Dane County Land & Water Resources Department - Land Conservation Division
- Dane County Emergency Management
- Association of State Floodplain Managers
- Capital Area Regional Planning Commission

Possible Funding and Technical Assistance:

- Staff time, ASFPM, consultants

Timeline: As work schedules and plans allow, but before next 5 year update of this plan

Priority: Moderate

Estimated Costs: Use available staff time or seek funding for consulting expertise

2009 Progress: New in 2009

Objective 29: Encourage the WIDNR to complete the hazard classification of dams in the County.

Steps:

-
- 1) Many dams have an “unknown” hazard classification, thus the level of risk associated with them is not known.
 - 2) Raise issue with WIDNR and encourage them to complete the hazard classification.

Lead Implementing Agency: Wisconsin Department of Natural Resources

Supporting Agencies: Dane County Office of Emergency Management

Possible Funding and Technical Assistance:

- Staff Time

Timeline: Within 3-4 years.

Priority: Moderate

Cost: Low; can be accomplished with existing staff and within existing department budget.

2009 Progress: New in 2009