Attachment C: Funding Sources for Hazard Mitigation

This subsection of the Michigan Hazard Mitigation Plan starts by providing a comprehensive overview of hazard mitigation funding sources and projects. It can serve as a "roadmap" to more detailed information sources available on the Internet, using the Catalog of Federal Domestic Assistance (CFDA) web site, as well as the numerous web sites for the federal and state agencies and private philanthropic organizations that are referred to in this section. It is meant to supplement the descriptive section on Mitigation Opportunities, Recommendations, and Implementation, in the main body of the Plan.

After an initial section that presents general techniques and resources for use in seeking and obtaining grant funding, a second section then presents funding sources for state and federal agency program information and nonprofit organizations and foundations (focusing on programs that may be useful for hazard mitigation projects). This is followed by a third section that describes the scoring and prioritization process used for project applications submitted to the State of Michigan. Finally, the lengthy fourth section of this Attachment summarizes all of the hazard mitigation grant projects that have gone through this selection process in Michigan, including a statewide map that displays the locations of these projects.

(NOTE: Some of the material in this section had originally been presented as a separate document, EMD-Pub. 207a, called "Funding Sources for Hazard Mitigation." This material was integrated within the 2011 edition of the Michigan Hazard Mitigation Plan.)

Hazard Mitigation Funding Mechanisms

This Attachment to the Michigan Hazard Mitigation Plan provides a compendium of Federal, state, and private sector funding sources for hazard mitigation projects, and is intended to serve as a tool for local communities to use in developing funding "packages" to implement hazard mitigation projects in support of their hazard mitigation plan. It is NOT the "be-all, end-all" information source for hazard mitigation project funding. Rather, it is intended to serve as a roadmap to other, more detailed information sources such as the Catalog of Federal Domestic Assistance (CFDA), Federal and State Agency web sites, and private philanthropic organization web sites.

Funding sources open to local governments or that directly or indirectly benefit local governments, are listed in this compendium. Those programs that benefit a designated group only (i.e., Indian Tribes) are not included, nor are those programs for which a State Agency is the only eligible applicant. (However, it is possible that projects could be funded under a partnership arrangement with a State Agency. Such requests would have to be directed in writing to that agency.)

This document was compiled by staff of the Mitigation Unit of the Emergency Management and Homeland Security Division, Michigan Department of State Police, using available information sources at the time of publication. As new programs and funding opportunities become available in the future, every attempt will be made to revise this compendium in a timely manner (within staff capabilities and resources). If you are aware of a potential hazard mitigation funding source not listed here, please provide the information to the Mitigation Unit for future revisions.

References to specific governmental funding programs are listed according to each agency's entry in either the Federal Catalog of Domestic Assistance (for federal programs) or an agency's web site (for state programs). Further instructions and information are included on the CFDA web site. Some private sector funding sources listed do not have a web site with program information, but additional information on that program can usually be obtained through the Michigan Foundation Directory, which can be ordered from the Council of Michigan Foundations web site at http://www.michiganfoundations.org/s_cmf/index.asp.

The mere availability of funding for mitigation projects does not guarantee success. "Grantsmanship"—the ability to formulate projects, determine probable costs, identify probable funding sources, coordinate with project "partners", and write successful project proposals—is an essential skill for today's emergency management professionals. Someone in the community has to have the "vision" to identify potential projects, handle the mechanics of obtaining funding, and then see the project through to fruition. Grantsmanship is both an art and science. There are definite right and wrong ways to prepare project proposals. That is the science part of the equation. However, it is the "art" involved—the ability to see what others might not and then have the wherewithal to make something happen—that makes some communities successful and others not.

Fortunately, technical assistance in proposal development and grant writing is available from a variety of sources, including the Michigan Department of State Police, Office of the Budget. The Office of the Budget Grants Coordinator is available to provide limited technical assistance to local officials in developing a good project proposal and request for grant funding. This assistance can be arranged through your MSP/EMHSD District Coordinator. Many local communities may have their own Grants Coordinator on staff or under contract to assist local agencies in grant-related activities. Guidance on developing and writing grant proposals is also included in this section.

Funding Sources for Mitigation Projects

Two types of problems frequently appear when mitigation efforts are being considered. The first is when a planner or emergency manager doesn't even consider many mitigation possibilities because an area's hazards may seem too large-scale, expensive, or technically demanding for the resources of his or her community to address. On the other hand, you may have dared to "dream big" and produced a lengthy "wish list" of excellent hazard mitigation ideas for your community, but now you need to determine whether any of these solutions are realistically achievable within the technical and financial limits of your community's emergency management program. This section is intended to encourage planners to dare to "think big" in creating their ideas for hazard mitigation projects, and then to be able to realistically assess the feasibility of implementing these projects. This section hopes to enable you to explore a wider range of possibilities for gaining the technical and financial capabilities needed to implement your project ideas. Before you give up a great idea that you were bold enough to envision, you should read through this section to see if, just maybe, there is a way to assemble all the funding and technical requirements that will make it work. There may be cases where a proposal is rejected as *almost but not quite* feasible, because it lacks that last bit of funding or technical expertise that would ensure its viability for the community, and everyone wonders if there weren't some source of funding or expertise that could have provided the project with the last little "push" it needed to get rolling. Hopefully, the reader will gain more ideas and capability to implement his or her mitigation ideas as a result of this section.

"Start At Home"
(Local Sources of Funding and Technical Assistance for Mitigation Projects)

The hierarchy of emergency management functions in the United States is arranged so that assistance from higher levels of the hierarchy serves to supplement local resources when they would otherwise be exhausted. It is therefore important to ensure that local resources really are being fully utilized before appealing to state or Federal government for assistance. It is also at the local level that the clearest picture is seen of what types of projects are needed, and for what purposes. Frequently, a great amount can be accomplished at the local level alone, as emergency managers learn to build partnerships and find creative ways to accomplish mitigation-oriented tasks in coordination with other types of community improvement projects.

It is a good idea to assess what capabilities your community currently possesses with which to carry out your mitigation project ideas, and what resources will be needed from other sources. It is essential to consider the nature of the mitigation project and its scope. Who will it affect in the community? Who will benefit the most from it? Answering these questions will often point to local people and organizations who can be asked to assist or participate in implementing the mitigation project.

Some mitigation strategies involve local ordinances or construction and safety codes. This sort of project would call for the mobilization of political and popular support to achieve the mitigation objective. Some strategies may entail a public education or awareness campaign that would involve local schools, community centers, or newspapers. Other projects may be physical construction or renovation projects that require engineering expertise and lots of funding to implement. The building of local partnerships and community awareness and support often is required for all these types of projects, and so this section will present many ideas emergency managers will want to explore from the outset. It is frequently the case that the amount of assistance available locally is far greater than that which is available from outside the community.

Building Community Awareness and Support through Volunteer Resources and Organizations

It is important to have community members aware of hazards so that they are less likely themselves to act in ways that increase risks to themselves or others, or to the community's property and environment. Community awareness and support has not only an educational and political component to it, however. Every community contains people with a wide variety of skills and knowledge, and a willingness to help out in circumstances where they see a need for it. Advice, technical expertise, labor, and even funds might be available through the donations of community members who have come to believe in the importance of the mitigation objective that has been proposed. Individuals may be able to volunteer their knowledge and skills, labor, power, and money to support a good project. Local businesses may be willing to donate labor, materials, or funds for projects that benefit them. Many wealthy persons have been known to contribute generously to causes they believe in-especially if it benefits the community in which they live and work. More information on this aspect of fundraising can be found at http://staff.lib.msu.edu/harris23/grants/index.htm .

Contributions and volunteerism need not occur individually, but can be achieved through local community organizations that are able to inform their members about the need for the project and coordinate their members' efforts to promote the project's success. Many local organizations will be glad to participate in worthy local causes, and such participation helps strengthen their cohesion and sense of community as well. Local organizations are often experienced at fundraising, and frequently have members of local political importance who can be vital to the success of a mitigation project. Emergency managers should consider what kinds of local organizations are present in the community and how to involve them or their members in support of the proposed mitigation project.

The Use of Public/Private Partnerships

Emergency managers should also identify who the most important for-profit institutions are in the local community. Major employers, financial institutions, and insurance companies may all have an interest in supporting a mitigation project that benefits the community. (Such support is often needed to gain state or federal support for the project as well.) Often, large companies already have a corporate giving program or an associated foundation that will provide assistance. Utilities and transportation service providers should similarly be investigated to see if they can provide assistance. A large number of insurance organizations can be found listed at http://www.aiadc.org/

Gaining Assistance Through Creative Coordination with Other Projects and Local Government Functions

Many mitigation projects have elements of overlap with other projects, or coincide in some way with established goals of the community, some of its residents, or one of its governmental agencies. Emergency managers who have an ability to identify common elements that his/her mitigation project shares with other community or organizational activities will often be able to find ways to coordinate his/her mitigation efforts with those of the related activities. In some cases, the process may be very formal, as when a mitigation project is being linked in with some ongoing government function or project. In other cases, there may merely be some small alteration of an existing project to include mitigation goals (or to avoid interference with such goals).

A local government has many types of activities that often affect hazard mitigation prospects in the community, such as capital improvement projects, and initiatives for community and economic development. It may be that, after examining each other's projects, the emergency manager and some other local official will find that the two are mutually beneficial, and some degree of coordination can help everyone's resources go farther. In some cases where all that is needed is some staff time or technical advice, it may be very easy for mutual assistance to occur.

Sometimes, an important mitigation project may deserve some sort of distinct local government support mechanism. This could involve the use of government bonds to support the project, the formation of a benefit assessment district, or the adjustment of the municipal budget to provide funding for the project. In such cases, the emergency manager will benefit greatly from whatever popular and political support were gained through the building of community awareness discussed in item 1 above. More information on government bonds can be found through the Michigan Municipal Bond Authority, now part of the Michigan Finance Authority.
See their website at http://www.michigan.gov/treasury/0,1607,7-121-1753_55952---,00.html.

Nonprofit Organizations and Foundations

Foundations can be investigated through the Council of Michigan Foundations (www.cmif.org) or The Foundation Center (http://fdncenter.org). There are a few more web sites on foundations at www.smallfoundations.org, www.cof.org , and http://staff.lib.msu.edu/harris23/grants/privcomm.htm. Some foundations are private and some are company-sponsored. The National Science Foundation has an Earthquake Hazards Mitigation Program and a Natural and Technological Hazards Mitigation Program. In addition, Michigan has a number of *community foundations*, a list of which can be found at the website listed above. If there is no such foundation for your area, perhaps one can be organized.

Not-for-profit organizations (and grant making public charities) may also be interested in helping, and at the very least tend to be excellent sources of information, advice, and favorable publicity that almost any project can benefit from. By talking with a variety of professionals, the local emergency manager will be able to assemble a lengthy list of professional organizations pertinent to local mitigation projects. Here are some examples:

- Advocates for Highway and Auto Safety
- American Engineers for Disaster Relief
- American Institute of Architects
- American Planning Association
- American Public Works Association, Emergency Management Committee
- American Society for Civil Engineers
- Association of Contingency Planners
- Association of State Dam Safety Officials
- Association of State Floodplain Managers
- Building Officials and Code Administrators International (BOCA)
- Building Seismic Safety Council
- Business and Industry Council for Emergency Planning and Preparedness
- Center for the Study of Emergency Management
- Earthquake Engineering Research Institute
- Institute for Business and Home Safety
- Insurance Institute for Highway Safety
- Insurance Services Office
- International Association of Emergency Planners
- International City/County Management Association
- Michigan Association of County Drain Commissioners
- Michigan Fire Chiefs Association
- Michigan State Firemen's Association
- Michigan Stormwater-Floodplain Association
- National Association of State Foresters
- National Center for Earthquake Engineering Research
- National Emergency Management Association
- National Conference of States on Building Codes and Standards
- National Fire Protection Association
- National Lightning Safety Institute
- National Association of Abandoned Mine Land Programs
- State and Local Emergency Management Data Users Group
- U.S. Fire Administration

In the local section of this funding overview, local volunteer assistance was mentioned. It may also be possible to involve state or national volunteer groups as well. A good place to start is by contacting Michigan Voluntary Associations Active in Disasters (MIVOAD). The American National Red Cross, religiously-affiliated organizations (such as the Salvation Army or Catholic Relief Services), or charitable organizations such as the United Way may also be of assistance in some cases.

Governmental Assistance

Much of the information collected here on state and federal sources of assistance can be found on the Internet. The simplest way to access information on Federal government assistance is through the Catalog of Federal Domestic Assistance (CFDA). Its web address is http://www.cfda.gov/ . The program listings included in this document are organized by the reference numbers used by CFDA to make it easy for anyone to locate the program in the federal catalog.

Unfortunately, the State of Michigan has no such catalog of assistance programs making it necessary to search through information from many state agencies' web sites to come up with a list of programs. A good place to start such a general search is the Michigan Government Home Page at http://www.michigan.gov/ . Click on the State Agencies icon and then go to the specific agency desired.

For this document, searches were narrowed by focusing on activities that had a clear emphasis on, or applications toward, hazard mitigation and emergency management. However, it is possible that extra assistance may be obtained through programs not included here. As described in the section on local funding, it is sometimes possible to find areas where mitigation concerns overlap with other subjects, and to coordinate both concerns in existing projects funded from other sources. Consider the special features of your community that might be affected by hazards. Programs dealing with housing, farms, fisheries, natural resources, parks and wildlife, for example, may in some way be applicable to a particular mitigation goal in your community. There are many state and federal programs and projects dealing with pollution, the environment, conservation, and economic development. Upon discussion, their administrators might approve some mitigation components in these programs/projects, or at least ensure that hazards are not worsened by program/project implementation.

Consider also the special assistance that may be available because of the presence of particular institutions or government-owned resources. The presence of a university or military installation often means many more resources that a community can use. Such institutions can also provide assistance on technical matters involving mitigation projects, and are usually interested in providing benefits to their surrounding communities whenever the chance arises. Many universities have "extension" programs whose purpose is to find and provide such beneficial services. Many technical and engineering projects can be assisted by special research grants gained through partnering with colleges and universities, or by requesting the expertise of an organization such as the U. S. Army Corps of Engineers.

Projects dealing with school (and college) improvements may have mitigation components included in them. Other institutional facilities such as prisons, nursing homes, and health care providers should also have an interest in supporting mitigation projects that affect them. Additional funding may be available in some cases when a project involves the protection of designated historic districts or other areas of cultural or economic significance. Hazards that threaten businesses and tourism might merit funding from programs whose goal is economic development (or business attraction and retention).

In addition, areas of the community that have concentrations of persons from particular ethnic groups may provide an opportunity for organizations serving that group to become involved in mitigation projects that help maintain or improve its inhabitants' quality of life. There are a number of federal programs that make assistance available to Indian tribes, for example. Consultation with any such groups in your area might reveal useful means of facilitating or promoting mitigation projects.

More Information

There are many books and documents that give more advice on ways to collect funding information, write grant proposals, and so on. The Foundation Center has a number of libraries throughout Michigan that have extensive grants and funding information. Below is a list of the general locations, with web sites. A complete list with address, phone and contact information can be found at http://staff.lib.msu.edu/harris23/grants/michigan.htm.

Foundation Center Cooperating Collections: Internet addresses

Alpena – Alpena County Library	http://www.alpenalibrary.org/special/grantseeking/grantseeking.html
Ann Arbor – U of M Graduate Library	http://guides.lib.umich.edu/grants
Battle Creek – Nonprofit Alliance Collections	http://www.willard.lib.mi.us/#
Detroit – Wayne State Purdy/Kresge Library	http://www.lib.wayne.edu/resources/guides/guide.php?id=29
East Lansing – MSU Main Library Reference	http://staff.lib.msu.edu/harris23/grants/index.htm
Farmington Hills – Community Library	http://www.farmlib.org/grants.html
Flint – U of M Flint Thompson Library	http://www.umflint.edu/library/
Fremont Area District Library	http://fremontlibrary.net/nonprofit.html
Grand Rapids – Public Library Reference Dept.	http://www.grpl.org
Kalamazoo – Public Library	http://www.kpl.gov/
Marquette – Peter White Public Library	http://www.uproc.lib.mi.us/pwpl/resources/foundation-center.html
Mason County – District Library	http://www.masoncounty.lib.mi.us/
Petoskey – Public Library	http://www.petoskeylibrary.org/inside.phtml?catid=105
Portage Lake – District Library	http://www.pldl.org/
Romeo – District Library	http://www.macomb.lib.mi.us/romeo/
Saginaw – Hoyt Public Library	http://www.saginawlibrary.org/your-library/grant-resource-center
Sault Ste. Marie – LSSU Library	http://www.lssu.edu/library/Grants.php
Traverse City – Area District Library	http://www.tadl.org/

Using Environmental / Economic Development Programs in Commercial Flood Acquisition, Relocation, and Infrastructure Mitigation Projects*

***NOTE:** A number of Federal or state administered environmental and economic development programs could possibly be used in concert with other funding sources to develop a funding "package" for implementing hazard mitigation projects. Such a project would undoubtedly be multi-objective in nature. That is, the purpose of the project would include not only hazard vulnerability reduction, but also enhancement of the environment or the community's economic development posture. When assembling such a funding "package", it is important to be flexible and creative. Projects that achieve more than one objective are almost always more desirable and beneficial than are projects that simply achieve a reduction in the community's hazard vulnerability. Although they are more difficult and take longer to implement, multi-objective projects and partnerships can help build lasting bridges between governmental agencies and between government and the private sector. Those bridges, in turn, can lead to enhanced coordination and cooperation in future community endeavors, and better integration of hazard mitigation principles and practices in day-to-day public and private sector activities.

Examples of possible commercial flood acquisition/relocation and/or infrastructure mitigation projects might include:

- Strengthening infrastructure that services commercial and industrial areas to prevent failure and loss of critical services.
- Creating new business sites so that existing businesses in the floodplain can be more easily relocated to less hazardous areas within the community.
- Cleaning up "brownfields" and making them into productive business sites so that businesses in the floodplain or other hazardous areas can relocate to them.
- Floodproofing or elevating existing businesses to prevent flood-related damage and negative economic impacts for the community.
- Stabilizing river / stream banks and road crossings to prevent sedimentation, reduce flood potential, and prevent the loss of roadway or other community infrastructure due to collapse from flooding.

- Constructing wetlands and retention / detention basins to manage stormwater and create wildlife habitat and environmental conservation areas.
- Stabilizing the Great Lakes shoreline property to prevent erosion, sedimentation, and possible physical damage to commercial and residential structures.
- Acquiring and demolishing waterfront structures and then using the site for other, more appropriate uses such as park and recreation land or less vulnerable commercial activities.

(See the MDEQ Clean Michigan Initiative web site for a listing of implemented multi-objective projects that have a mitigation component. Address: http://www.michigan.gov/deq/0,1607,7-135-3307_31116---,00.html.)

The Catalog of Federal Domestic Assistance

Developing And Writing Grant Proposals

PART ONE: DEVELOPING A GRANT PROPOSAL

Preparation

A successful grant proposal is one that is well-prepared, thoughtfully planned, and concisely packaged. The potential applicant should become familiar with all of the pertinent program criteria related to the Catalog program from which assistance is sought. Refer to the information contact person listed in the Catalog program description before developing a proposal to obtain information such as whether funding is available, when applicable deadlines occur, and the process used by the grantor agency for accepting applications. Applicants should remember that the basic requirements, application forms, information and procedures vary with the Federal agency making the grant award.

Individuals without prior grant proposal writing experience may find it useful to attend a grantsmanship workshop. A workshop can amplify the basic information presented here. Applicants interested in additional readings on grantsmanship and proposal development should consult the references listed at the end of this section and explore other library resources.

INITIAL PROPOSAL DEVELOPMENT

Developing Ideas for the Proposal

When developing an idea for a proposal it is important to determine if the idea has been considered in the applicant's locality or State. A careful check should be made with legislators and area government agencies and related public and private agencies which may currently have grant awards or contracts to do similar work. If a similar program already exists, the applicant may need to reconsider submitting the proposed project, particularly if duplication of effort is perceived. If significant differences or improvements in the proposed project's goals can be clearly established, it may be worthwhile to pursue Federal assistance.

Community Support

Community support for most proposals is essential. Once proposal summary is developed, look for individuals or groups representing academic, political, professional, and lay organizations which may be willing to support the proposal in writing. The type and caliber of community support is critical in the initial and subsequent review phases. Numerous letters of support can be persuasive to a grantor agency. Do not overlook support from local government agencies and public officials. Letters of endorsement detailing exact areas of project sanction and

commitment are often requested as part of a proposal to a Federal agency. Several months may be required to develop letters of endorsement since something of value (e.g., buildings, staff, services) is sometimes negotiated between the parties involved.

Many agencies require, in writing, affiliation agreements (a mutual agreement to share services between agencies) and building space commitments prior to either grant approval or award. A useful method of generating community support may be to hold meetings with the top decision makers in the community who would be concerned with the subject matter of the proposal. The forum for discussion may include a query into the merits of the proposal, development of a contract of support for the proposal, to generate data in support of the proposal, or development of a strategy to create proposal support from a large number of community groups.

Identification of a Funding Resource

A review of the Objectives and Uses and Use Restrictions sections of the Catalog program description can point out which programs might provide funding for an idea. Do not overlook the related programs as potential resources. Both the applicant and the grantor agency should have the same interests, intentions, and needs if a proposal is to be considered an acceptable candidate for funding.

Once a potential grantor agency is identified, call the contact telephone number identified in Information Contacts and ask for a grant application kit. Later, get to know some of the grantor agency personnel. Ask for suggestions, criticisms, and advice about the proposed project. In many cases, the more agency personnel know about the proposal, the better the chance of support and of an eventual favorable decision. Sometimes it is useful to send the proposal summary to a specific agency official in a separate cover letter, and ask for review and comment at the earliest possible convenience. Always check with the Federal agency to determine its preference if this approach is under consideration. If the review is unfavorable and differences cannot be resolved, ask the examining agency (official) to suggest another department or agency which may be interested in the proposal. A personal visit to the agency's regional office or headquarters is also important. A visit not only establishes face-to-face contact, but also may bring out some essential details about the proposal or help secure literature and references from the agency's library.

Federal agencies are required to report funding information as funds are approved, increased or decreased among projects within a given State depending on the type of required reporting. Also, consider reviewing the Federal Budget for the current and budget fiscal years to determine proposed dollar amounts for particular budget functions.

The applicant should carefully study the eligibility requirements for each Federal program under consideration (see the Applicant Eligibility section of the Catalog program description). The applicant may learn that he or she is required to provide services otherwise unintended such as a service to particular client groups, or involvement of specific institutions. It may necessitate the modification of the original concept in order for the project to be eligible for funding. Questions about eligibility should be discussed with the appropriate program officer.

Deadlines for submitting applications are often not negotiable. They are usually associated with strict timetables for agency review. Some programs have more than one application deadline during the fiscal year. Applicants should plan proposal development around the established deadlines.

Getting Organized to Write the Proposal

Throughout the proposal writing stage keep a notebook handy to write down ideas. Periodically, try to connect ideas by reviewing the notebook. Never throw away written ideas during the grant writing stage. Maintain a file labeled "Ideas" or by some other convenient title and review the ideas from time to time. The file should be easily accessible. The gathering of documents such as articles of incorporation, tax exemption certificates, and bylaws should be completed, if possible, before the writing begins.

REVIEW

Criticism
At some point, perhaps after the first or second draft is completed, seek out a neutral third party to review the proposal working draft for continuity, clarity and reasoning. Ask for constructive criticism at this point, rather than wait for the Federal grantor agency to volunteer this information during the review cycle. For example, has the writer made unsupported assumptions or used jargon or excessive language in the proposal?

Signature
Most proposals are made to institutions rather than individuals. Often signatures of chief administrative officials are required. Check to make sure they are included in the proposal where appropriate.

Neatness
Proposals should be typed, collated, copied, and packaged correctly and neatly (according to agency instructions, if any). Each package should be inspected to ensure uniformity from cover to cover. Binding may require either clamps or hard covers. Check with the Federal agency to determine its preference. A neat, organized, and attractive proposal package can leave a positive impression with the reader about the proposal contents.

Mailing
A cover letter should always accompany a proposal. Standard U.S. Postal Service requirements apply unless otherwise indicated by the Federal agency. Make sure there is enough time for the proposals to reach their destinations. Otherwise, special arrangements may be necessary. Always coordinate such arrangements with the Federal grantor agency project office (the agency which will ultimately have the responsibility for the project), the grant office (the agency which will coordinate the grant review), and the contract office (the agency responsible for disbursement and grant award notices), if necessary.

PART TWO: WRITING THE GRANT PROPOSAL

The Basic Components of a Proposal
There are eight basic components to creating a solid proposal package: (1) the proposal summary; (2) introduction of organization; (3) the problem statement (or needs assessment); (4) project objectives; (5) project methods or design; (6) project evaluation; (7) future funding; and (8) the project budget. The following will provide an overview of these components.

The Proposal Summary: Outline of Project Goals
The proposal summary outlines the proposed project and should appear at the beginning of the proposal. It could be in the form of a cover letter or a separate page, but should definitely be brief -- no longer than two or three paragraphs. The summary would be most useful if it were prepared after the proposal has been developed in order to encompass all the key summary points necessary to communicate the objectives of the project. It is this document that becomes the cornerstone of your proposal, and the initial impression it gives will be critical to the success of your venture. In many cases, the summary will be the first part of the proposal package seen by agency officials and very possibly could be the only part of the package that is carefully reviewed before the decision is made to consider the project any further.

The applicant must select a fundable project which can be supported in view of the local need. Alternatives, in the absence of Federal support, should be pointed out. The influence of the project both during and after the project period should be explained. The consequences of the project as a result of funding should be highlighted.

Introduction: Presenting a Credible Applicant or Organization
The applicant should gather data about its organization from all available sources. Most proposals require a description of an applicant's organization to describe its past and present operations. Some features to consider are:

- A brief biography of board members and key staff members.
- The organization's goals, philosophy, track record with other grantors, and any success stories.
- The data should be relevant to the goals of the Federal grantor agency and should establish the applicant's credibility.

The Problem Statement: Stating the Purpose at Hand
The problem statement (or needs assessment) is a key element of a proposal that makes a clear, concise, and well-supported statement of the problem to be addressed. The best way to collect information about the problem is to conduct and document both a formal and informal needs assessment for a program in the target or service area. The information provided should be both factual and directly related to the problem addressed by the proposal. Areas to document are:

- The purpose for developing the proposal.
- The beneficiaries -- who are they and how will they benefit.
- The social and economic costs to be affected.
- The nature of the problem (provide as much hard evidence as possible).
- How the applicant organization came to realize the problem exists, and what is currently being done about the problem.
- The remaining alternatives available when funding has been exhausted. Explain what will happen to the project and the impending implications.
- Most importantly, the specific manner through which problems might be solved. Review the resources needed, considering how they will be used and to what end.

There is a considerable body of literature on the exact assessment techniques to be used. Any local, regional, or State government planning office, or local university offering course work in planning and evaluation techniques should be able to provide excellent background references. Types of data that may be collected include: historical, geographic, quantitative, factual, statistical, and philosophical information, as well as studies completed by colleges, and literature searches from public or university libraries. Local colleges or universities which have a department or section related to the proposal topic may help determine if there is interest in developing a student or faculty project to conduct a needs assessment. It may be helpful to include examples of the findings for highlighting in the proposal.

Project Objectives: Goals and Desired Outcome
Program objectives refer to specific activities in a proposal. It is necessary to identify all objectives related to the goals to be reached, and the methods to be employed to achieve the stated objectives. Consider quantities or things measurable and refer to a problem statement and the outcome of proposed activities when developing a well-stated objective. The figures used should be verifiable. Remember, if the proposal is funded, the stated objectives will probably be used to evaluate program progress, so be realistic. There is literature available to help identify and write program objectives.

Program Methods and Program Design: A Plan of Action
The program design refers to how the project is expected to work and solve the stated problem. Sketch out the following:

- The activities to occur along with the related resources and staff needed to operate the project (inputs).
- A flow chart of the organizational features of the project. Describe how the parts interrelate, where personnel will be needed, and what they are expected to do. Identify the kinds of facilities, transportation, and support services required (throughputs).

- Explain what will be achieved through 1 and 2 above (outputs); i.e., plan for measurable results. Project staff may be required to produce evidence of program performance through an examination of stated objectives during either a site visit by the Federal grantor agency and or grant reviews which may involve peer review committees.
- It may be useful to devise a diagram of the program design. For example, draw a three column block. Each column is headed by one of the parts (inputs, throughputs and outputs), and on the left (next to the first column) specific program features should be identified (i.e., implementation, staffing, procurement, and systems development). In the grid, specify something about the program design, for example, assume the first column is labeled inputs and the first row is labeled staff. On the grid one might specify under inputs five nurses to operate a child care unit. The throughput might be to maintain charts, counsel the children, and set up a daily routine; outputs might be to discharge 25 healthy children per week. This type of procedure will help to conceptualize both the scope and detail of the project.
- Wherever possible, justify in the narrative the course of action taken. The most economical method should be used that does not compromise or sacrifice project quality. The financial expenses associated with performance of the project will later become points of negotiation with the Federal program staff. If everything is not carefully justified in writing in the proposal, after negotiation with the Federal grantor agencies, the approved project may resemble less of the original concept. Carefully consider the pressures of the proposed implementation, that is, the time and money needed to acquire each part of the plan. A Program Evaluation and Review Technique (PERT) chart could be useful and supportive in justifying some proposals.
- Highlight the innovative features of the proposal which could be considered distinct from other proposals under consideration.
- Whenever possible, use appendices to provide details, supplementary data, references, and information requiring in-depth analysis. These types of data, although supportive of the proposal, if included in the body of the design, could detract from its readability. Appendices provide the proposal reader with immediate access to details if and when clarification of an idea, sequence or conclusion is required. Time tables, work plans, schedules, activities, methodologies, legal papers, personal vitae, letters of support, and endorsements are examples of appendices.

Evaluation: Product and Process Analysis

The evaluation component is two-fold: (1) product evaluation; and (2) process evaluation. Product evaluation addresses results that can be attributed to the project, as well as the extent to which the project has satisfied its desired objectives. Process evaluation addresses how the project was conducted, in terms of consistency with the stated plan of action and the effectiveness of the various activities within the plan.

Most Federal agencies now require some form of program evaluation among grantees. The requirements of the proposed project should be explored carefully. Evaluations may be conducted by an internal staff member, an evaluation firm or both. The applicant should state the amount of time needed to evaluate, how the feedback will be distributed among the proposed staff, and a schedule for review and comment for this type of communication. Evaluation designs may start at the beginning, middle or end of a project, but the applicant should specify a start-up time. It is practical to submit an evaluation design at the start of a project for two reasons:

- Convincing evaluations require the collection of appropriate data before and during program operations; and,
- If the evaluation design cannot be prepared at the outset then a critical review of the program design may be advisable.

Even if the evaluation design has to be revised as the project progresses, it is much easier and cheaper to modify a good design. If the problem is not well defined and carefully analyzed for cause and effect relationships then a good evaluation design may be difficult to achieve. Sometimes a pilot study is needed to begin the identification of facts and relationships. Often a thorough literature search may be sufficient.

Evaluation requires both coordination and agreement among program decision makers (if known). Above all, the Federal grantor agency's requirements should be highlighted in the evaluation design. Also, Federal grantor agencies may require specific evaluation techniques such as designated data formats (an existing information

collection system) or they may offer financial inducements for voluntary participation in a national evaluation study. The applicant should ask specifically about these points. Also, consult the Criteria For Selecting Proposals section of the Catalog program description to determine the exact evaluation methods to be required for the program if funded.

Future Funding: Long-Term Project Planning
Describe a plan for continuation beyond the grant period, and/or the availability of other resources necessary to implement the grant. Discuss maintenance and future program funding if program is for construction activity. Account for other needed expenditures if program includes purchase of equipment.

The Proposal Budget: Planning the Budget
Funding levels in Federal assistance programs change yearly. It is useful to review the appropriations over the past several years to try to project future funding levels (see the Financial Information provided by the Catalog of Federal Domestic Assistance materials).

However, it is safer to never anticipate that the income from the grant will be the sole support for the project. This consideration should be given to the overall budget requirements, and in particular, to budget line items most subject to inflationary pressures. Restraint is important in determining inflationary cost projections (avoid padding budget line items), but attempt to anticipate possible future increases.

Some vulnerable budget areas are: utilities, rental of buildings and equipment, salary increases, food, telephones, insurance, and transportation. Budget adjustments are sometimes made after the grant award, but this can be a lengthy process. Be certain that implementation, continuation and phase-down costs can be met. Consider costs associated with leases, evaluation systems, hard/soft match requirements, audits, development, implementation and maintenance of information and accounting systems, and other long-term financial commitments.

A well-prepared budget justifies all expenses and is consistent with the proposal narrative. Some areas in need of an evaluation for consistency are: (1) the salaries in the proposal in relation to those of the applicant organization should be similar; (2) if new staff persons are being hired, additional space and equipment should be considered, as necessary; (3) if the budget calls for an equipment purchase, it should be the type allowed by the grantor agency; (4) if additional space is rented, the increase in insurance should be supported; (5) if an indirect cost rate applies to the proposal, the division between direct and indirect costs should not be in conflict, and the aggregate budget totals should refer directly to the approved formula; and (6) if matching costs are required, the contributions to the matching fund should be taken out of the budget unless otherwise specified in the application instructions.

It is very important to become familiar with Government-wide circular requirements. The Catalog of Federal Domestic Assistance identifies in its program description section (as information is provided from the agencies) the particular circulars applicable to a Federal program, and summarizes the coordination of Executive Order 12372, "Intergovernmental Review of Programs" requirements in an appendix. The applicant should thoroughly review the appropriate circulars since they are essential in determining items such as cost principles and conforming to Government guidelines for Federal domestic assistance.

GUIDELINES AND LITERATURE

United States Government Manual
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

OMB Circular Nos. A-87, A-102, A-110, and A-133, and Executive Order 12372:
Publications Office
Office of Administration

Room 2200, 725 Seventeenth Street, NW.
Washington, DC 20503

Government Printing Office (GPO) Resources
The government documents identified above as available from the GPO can be requested (supply the necessary identifying information) by writing to:

Superintendent of Documents
Government Printing Office
Washington, DC 20402

Regional and Federal Depository Libraries

Regional libraries can arrange for copies of Government documents through an interlibrary loan. All Federal Depository Libraries will receive copies of the Catalog directly. A list of depository and regional libraries is available by writing: Chief, Library Division, Superintendent of Documents, Stop SLL, Washington, DC 20402.

STATE AGENCY MITIGATION FUNDING PROGRAMS

STATE AGENCY MITIGATION FUNDING PROGRAMS

Funding Sources for Hazard-Specific Measures	Drought	Earthquake	Extreme Temperatures	Wildfire	Dam Failure	Riverine Flooding	Great Lakes Shoreline Flooding	Subsidence	Hail	Lightning	Severe Wind	Tornadoes	Ice and Sleet Storms	Snowstorms	FINANCIAL ASSISTANCE	TECHNICAL ASSISTANCE
MICHIGAN DEPARTMENT OF AGRICULTURE																
Conservation Reserve Enhancement Program						X					X				X	X
Intercounty Drain Program (available to drain commissioners only)					X	X										X
MICHIGAN DEPT. OF ENVIRONMENTAL QUALITY																
Coastal Management Program							X								X	X
Michigan Great Lakes Protection Fund							X								X	
State Revolving Fund (Loan)						X									X	
Wetland Program Development (also see 66.461 in CFDA)						X	X								X	
MICHIGAN DEPT. OF NATURAL RESOURCES																
Land & Water Conservation Fund						X	X								X	
Michigan Habitat Improvement Fund Project Grants						X									X	
Michigan Natural Resources Trust Fund				X		X									X	
Michigan Volunteer Fire Assistance				X											X	
Recreational Trails Program Grants						X	X								X	
Community Forestry Program											X	X	X		X	X
MICHIGAN DEPARTMENT OF STATE POLICE																
Emergency Management Performance Grants (also see 97.042 in CFDA)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Flood Mitigation Assistance (also see 97.029 in CFDA)						X	X								X	
Hazard Mitigation Grant Program (also see 97.039 in CFDA)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Federal Disaster Assistance to Individuals and Households in Presidential Declared Disaster Areas (also see 97.048 in CFDA)		X		X		X	X	X			X	X			X	
Presidential Declared Disaster Assistance - Disaster Housing Operations For Individuals And Households (also see 97.049 in CFDA)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Presidential Declared Disaster Assistance To Individuals And Households - Other Needs (also see 97.050 in CFDA)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Disaster Grants-Public Assistance (Presidentially Declared Disasters) (also see 97.036 in CFDA)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Pre-Disaster Mitigation (also see 97.047 in CFDA)			X	X		X	X				X	X			X	
Severe Loss Repetitive Program (also see 97.110 in CFDA)						X	X								X	
Repetitive Flood Claims (also see 97.092 in CFDA)						X	X								X	
MICHIGAN DEPARTMENT OF TRANSPORTATION																
Transportation Economic Development Fund						X	X								X	
MICHIGAN ECONOMIC DEVELOPMENT CORP																
Community Development Block Grant Program (also see 14.218,14.219, 14.228 in CFDA)						X	X								X	
Urban Land Assembly						X	X								X	
MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY																
CDBG Housing Resource Fund (Inc HOME) (also see 14.239 in CFDA)						X	X		X		X	X			X	
Home/Property Improvement Loans						X	X		X		X	X			X	
MICHIGAN DEPARTMENT OF TREASURY																
Michigan Finance Authority-Local Gov't Loan Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Michigan Finance Authority-State Aid Note Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

FEDERAL AGENCY MITIGATION FUNDING PROGRAMS (FROM THE CATALOG OF FEDERAL DOMESTIC ASSISTANCE)

Catalog of Federal Domestic Assistance
Index of Agencies

Agency Code	Agency
10	U.S. Department of Agriculture
11	U.S. Department of Commerce
12	U.S. Department of Defense
14	U.S. Department of Housing and Urban Development
15	U.S. Department of the Interior
47	National Science Foundation
59	Small Business Administration
66	U.S. Environmental Protection Agency
81	U.S. Department of Energy
97	Department of Homeland Security

FEDERAL HAZARD MITIGATION FUNDING SOURCES

Funding Sources for Hazard-Specific Measures	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
10.054 Emergency Conservation Program	X					X					X	X			X	
10.069 Conservation Reserve Program						X					X	X			X	X
10.072 Wetlands Reserve Program						X	X								X	X
10.202 Cooperative Forestry Research				X							X	X			X	
10.410 Very Low to Moderate Income Housing Loans			X	X		X	X	X	X	X	X	X			X	
10.417 Very Low Income Housing Repair Loans/Grants			X	X		X	X	X	X	X	X	X			X	
10.652 Forestry Research						X	X				X	X			X	
10.664 Cooperative Forestry Assistance				X											X	
10.760 Water & Waste Disposal Sys. for Rural Comm.						X	X								X	
10.763 Emergency Community Water Assistance Grants	X					X	X								X	
10.766 Community Facilities Loans & Grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10.768 Business and Industry Loans	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
10.770 Water/Waste Disposal Loans/Grants						X	X								X	
10.773 Rural Business Opportunity Grants						X	X								X	
10.850 Rural Electrification Loans and Loan Guarntees										X	X	X	X	X	X	
10.901 Resource Conservation and Development	X	X	X	X		X	X									X
10.902 Soil and Water Conservation	X	X	X	X		X	X									X
10.904 Watershed Protection and Flood Prevention					X	X	X								X	X
10.913 Farm and Ranch Land Protection Program						X	X								X	
10.914 Wildlife Habitat Incentive Program						X	X								X	
11.300 Investments for Public Works and Economic Development Facilities					X	X	X								X	
11.303 Economic Development Technical Assistance						X	X								X	X
11.307 Economic Adjustment Assistance					X	X	X				X	X			X	
11.419 Coastal Zone Mgmt. Administration Awards							X									X
11.462 Hydrologic Research	X				X	X	X								X	
11.463 Habitat Conservation							X								X	
11.478 Center for Coastal Ocean Research Coastal Ocean Prgrm							X								X	
12.101 Beach Erosion Control Projects							X								X	
12.102 Emergency Rehabilitation of Flood Control Works or Federally Authorized Coastal Protection Works					X	X	X								X	
12.103 Emergency Operations Flood Response & Post-Flood Response					X	X	X								X	
12.104 Flood Plain Management Services					X	X	X									X
12.105 Protection of Essential Highways, Highway Bridge Approaches, and Public Works					X	X	X								X	
12.106 Flood Control Projects					X	X	X								X	
12.108 Snagging and Clearing for Flood Control					X	X	X								X	
12.109 Protection, Clearing and Straightening Channels						X	X								X	
12.111 Emergency Advance Measures for Flood Protection					X	X	X								X	
14.218 Community Development Block Grants/Entitlement Grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
14.228 Community Development Block Grants-State's Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
14.239 HOME Investment Partnerships Program						X	X		X	X	X	X			X	
15.623 North American Wetlands Conservation Fund						X	X								X	
15.904 Historic Preservation Fund Grants-In-Aid						X	X	X	X	X	X	X	X	X		X
15.916 Outdoor Recreation-Acquisition, Development and Planning (Land and Water Conservation Fund Grants)						X	X								X	

FEDERAL HAZARD MITIGATION FUNDING SOURCES (CONT.)

Funding Sources for Hazard-Specific Measures	Drought	Earthquake	Extreme	Wildfire	Dam Failure	Riverine Flooding	Great Lakes Shoreline	Subsidence	Hail	Lightning	Severe Wind	Tornadoes	Ice and Sleet	Snowstorms	FINANCIAL ASSISTANCE	TECHNICAL ASSISTANCE
15.918 Disposal of Federal Surplus Real Property for Parks, Recreation, and Historic Monuments						X	X									
15.921 Rivers, Trails, and Conservation Assistance						X	X									X
47.041 Engineering Grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
59.008 Disaster Assistance Loans		X		X		X	X	X	X	X	X	X	X	X	X	
66.461 Regional Wetlands Program Development Grants						X	X								X	
66.469 Great Lakes Program							X								X	
81.042 Weatherization Assistance for Low-Income Persons			X												X	
97.018 National Fire Academy Training Assistance				X												X
97.022 Flood Insurance						X	X									X
97.023 Community Assistance Program - State Support Services Element (NFIP)						X	X									X
97.024 Emergency Food and Shelter National Board Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.026 Emergency Management Institute-Training Assistance	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
97.028 Emergency Management Institute-Resident Education Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
97.029 Flood Mitigation Assistance						X	X								X	
97.030 Community Disaster Loans	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.031 Cora Brown Fund	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.036 Disaster Grants - Public Assistance (Presidentially Declared Disasters)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.039 Hazard Mitigation Grant Program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.041 National Dam Safety Program					X											X
97.042 Emergency Management Performance Grants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.044 Assistance to Firefighters Grant				X											X	
97.045 Cooperating Techincal Partners						X	X								X	
97.046 Fire Management Assistance Grant				X											X	
97.047 Pre-Disaster Mitigation		X		X		X	X	X			X	X			X	
97.048 Disaster Housing Assistance to Individuals and Households in Presidential Declared Disaster Areas	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.049 Presidential Declared Disaster Assistance - Disaster Housing Operations for Individuals and Housholds	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.050 Presidential Declared Disaster Assistance to Individual and Households - Other Needs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.092 Repetitive Flood Claims						X	X								X	
97.109 Disaster Housing Assistance Grant	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
97.110 Severe Repetitive Loss Program						X	X								X	

Project Scoring Matrix and Prioritization Criteria for the HMGP / FMAP / PDMP

Mitigation Grant Programs Project Prioritization Scoring Matrix

Project	Is the Project Mitigation? Y/N	Does it Support the MHMP? Y/N	Is it an Eligible Project? Y/N	Other Available Funding Sources?	Consistent with MCCERCC Priorities for this Federal Disaster?	Complete Solution?	Long-term Solution?	Cost Effective?	Environmentally Sound?	Consistent with other initiatives?	Total Score
	If yes, continue	If yes, continue	If yes, continue	If no, continue	1-5	1-5	1-5	1-5	1-5	1-5	

RESPONSE KEY:
5 = Strongly Agree
4 = Agree
3 = Neither Agree or Disagree (Neutral)
2 = Disagree
1 = Strongly Disagree

Project Prioritization Criteria

A project will be evaluated based on the following criteria:

- The project demonstrates sound hazard mitigation techniques.
- The project is listed in the applicable local hazard mitigation plan.
- The project supports the Michigan Hazard Mitigation Plan.
- The project meets the required eligibility criteria.
- The project is suitable for funding under the HMGP / FMAP / PDMP rather than other funding programs.
- The project is consistent with the MCCERCC approved strategy for the federally-declared disaster (if applicable).
- The project completely or substantially solves the problem.
- The project provides a permanent or long-term solution.
- The project is likely to be cost-effective based on physical damages prevented.
- The project will not create negative environmental effects.
- The project is consistent with other projects, initiatives, and state agency priorities.
- Communities with the highest risk.
- Communities with the greatest number of repetitive loss properties.
- Communities with the greatest number of NFIP insured structures.
- Communities with the most intense development pressures.
- Communities with the largest increases in population and/or physical development.
- Communities that have the ability to successfully implement hazard mitigation projects within the required timeframes.
- Communities that have expressed interest in hazard mitigation activities.

Project Eligibility Criteria

FEMA considers a project eligible for HMGP / FMAP / PDMP funding only if the project:

- Conforms to the State Hazard Mitigation Plan.
- Conforms to environmental laws and regulations.
- Is cost-effective.
- Solves a problem independently or constitutes a functional portion of a solution.
- Cannot be funded by another program.
- The applicant community is a member, in good standing, of the NFIP (flood related projects only).

  *Note – technical study type projects may be eligible for funding if they are accompanied by a second project (phase II) for construction measures that are developed and determined eligible by the study project (phase I).

Eligible Project Types

Following is a list of potentially eligible project types as outlined in federal guidance (this list is not all inclusive):

- **Acquisition of real property** in a hazard area; **physical relocation of structures** from a hazard area.

- **Elevation of structures** in compliance with federal, state and local ordinances.
- **Retrofit of structures** – wet or dry floodproofing (according to local code / building standards, compliant with NFIP standards); high wind bracing; seismic strengthening of structures or their non-structural components; application of wildfire resistant materials; and structural fire safety measures.
- **Minor structural flood risk reduction measures** – debris basins; stormwater detention basins or infiltration wells; culvert upgrades; diversions; flapgates or floodgates; localized flood risk reduction system to protect critical facilities.
- **Vegetation management** – natural windbreaks; living snow fences; shoreline stabilization; natural stabilization; wildfire defensible space, etc.
- **Phase I or II design, engineering or feasibility study** for complex mitigation projects that are reasonably expected to be funded and implemented.

Explanation: Complete Solution
Approved projects should either completely solve a site-specific problem or be an element of a larger solution where there is assurance of project completion.

Explanation: Long-term Solution
Mitigation measures funded under the HMGP / FMAP / PDMP are intended to provide a long-term or permanent solution. Ideally, the measure would be effective for the life of the property being protected. (For example, erecting an emergency berm on a beach to prevent wave damage to structures is a short-term solution, as opposed to a long-term solution such as elevation or relocation of the structures.)

Explanation: Cost Effective
For a project to be considered cost effective, the benefits gained by completing the project must be greater than the cost of the project. Cost effectiveness should take into account the following:

- The cost to complete the project.
- The life of the project.
- Past damages that have resulted from the situation that will be mitigated as a result of the project.
- The frequency and extent of damage that is likely to occur if the project is not completed.
- Annual costs of maintaining the project.

Explanation: Environmental Effects
All HMGP / FMAP / PDMP projects must be in conformance with applicable environmental laws and regulations, including but not limited to:
- The National Environmental Policy Act.
- The National Historic Preservation Act.
- The Endangered Species Act.
- Executive Order 11988, Floodplain Management.
- Executive Order 11990, Protection of Wetlands.
- Executive Order 12898, Environmental Justice.

(Note: a project should not create an environmental problem or shift a hazard to a new location.)

Explanation: Consistent with Other Initiatives
HMGP / FMAP / PDMP projects should be complimentary to other mitigation projects, initiatives, and state agency priorities. At a minimum, projects should not undermine other identified mitigation priorities and activities.

Summary of Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance Program (FMAP), Pre-Disaster Mitigation Program (PDMP), and Repetitive Flood Claims Program (RFCP) Project and Planning Grants Funded in Michigan

HMGP Projects

Federal Disaster #1028: 1994 Northern Michigan Deep Freeze
Federal Disaster #1128: 1996 East Michigan Tornado and Flooding
Federal Disaster #1181: 1997 Southeast Michigan Tornadoes and Flooding
Federal Disaster #1226: 1998 West Michigan Windstorm
Federal Disaster #1237: 1998 Detroit Area Windstorm
Federal Disaster #1346: 2000 Detroit Area Urban Flooding
Federal Disaster #1413: 2002 Central and Western Upper Peninsula Flooding
Federal Disaster #1527: 2004 Southern Michigan Severe Storms and Flooding
Federal Disaster #1777: 2008 Central Michigan Severe Storms and Flooding

FMAP Projects

Planning, Technical Assistance, and Project Grants Awarded During Fiscal Years 1996-2013

PDMP Projects

PDMP Planning and Project Grants Awarded During Fiscal Years 2002-2013

RFCP Projects

RFCP Project Grant Awarded During Fiscal Year 2006 and 2012

Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program (HMGP) was created by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 93-288, as amended). The HMGP provides funding for states and local communities to implement long-term hazard mitigation measures that reduce or eliminate risk to people and property from natural and technological hazards and their effects. Funding for Michigan's HMGP is made available following a federal Major Disaster Declaration in the state. The amount available to the State for HMGP projects is based on 15% of the federal funds expended on the Public and Individual Assistance programs for the disaster, with an option to increase that amount to 20% with an approved "enhanced" state mitigation plan in place. The objective of the HMGP is to protect lives and property and significantly reduce or eliminate future disaster expenditures.

HMGP grants can be awarded to eligible applicants throughout the state, regardless of the boundaries of the disaster declaration. In Michigan, eligible applicants include state agencies, local governments, certain private non-profit organizations, and Indian Tribes or authorized tribal organizations. After November 1, 2004, federal funds are available for up to 75% of eligible project costs ONLY for those applicants that have in place or are covered under an approved hazard mitigation plan that meets the requirements of the federal Disaster Mitigation Act (DMA) of 2000. The remainder of the cost for the project is the responsibility of the applicant.

The HMGP can be used to fund projects to protect either public or private property. Examples of the types of projects that can be funded by the HMGP include, but are not limited to:

- Structural retrofitting to reduce wind and water damage
- Acquisition and relocation or elevation of flood-prone structures
- Strengthening vulnerable components of public infrastructure and facilities
- Development of state or local standards to protect new and substantially improved structures from wind and water damage
- Certain hazard or disaster related educational initiatives.

Applicants must apply for the HMGP through the MSP/EMHSD. The MCCERCC will set priorities for the HMGP following a disaster declaration. Based on those priorities, notification of available funding will be made to appropriate entities / organizations. The MCCERCC will review and prioritize eligible applications. Selected formal project applications will then be submitted by the MSP/EMHSD to FEMA for final funding approval.

Following a disaster declaration, prospective applicants, if not notified of available HMGP funds, may want to contact their local office of emergency management to see if HMGP funds are available. For additional information about the HMGP contact Matt Schnepp, State Hazard Mitigation Officer, by phone at (517) 336-2040, facsimile at (517) 333-4987, or e-mail at schneppm1@michigan.gov.

Flood Mitigation Assistance Program

On September 23, 1994 President Clinton signed into law the Reigle Community Development and Regulatory Improvement Act, referred to as the National Flood Insurance Reform Act (NFIRA). The purpose of the NFIRA is to improve the financial condition of the National Flood Insurance Program (NFIP) and to reduce the federal expenditures for federal disaster assistance to flood damaged properties. With the passage of the NFIRA, Congress authorized the establishment of a federal grant program to provide financial assistance to states and local communities for flood mitigation planning and activities. (Note: Flood mitigation is defined as any action taken before, during or after a flood to permanently eliminate or reduce the long-term risk to human life and property.) FEMA

has designated this as the Flood Mitigation Assistance Program (FMAP). Under the FMAP, FEMA provides assistance to states and local communities for activities that will reduce the risk of flood damage to structures insurable under the NFIP.

The FMAP is a state administered, cost-sharing program through which the States and communities can receive grants for flood mitigation activities. FEMA encourages the State to assist the local community in prioritizing mitigation activities outlined in their hazard mitigation plan and to fund projects that will greatly reduce the risk of flood damage to buildings, manufactured homes and other NFIP-insurable structures. Mitigation of substantially damaged and repetitive loss structures is a high priority.

Mitigation measures under the FMAP are funded on a 75% federal / 25% non–federal basis. (Note: Unless by special appropriation of the Michigan Legislature, no state funding will be used for the 25% match. Contributions of other state agencies may be used as an in-kind contribution toward the 25% match.)

Applications for FMAP grants are made directly to FEMA via the federal E-Grants system. The MCCERCC reviews all of the applications received and prioritizes applications. FEMA makes final project selections and approvals. For additional information about the FMAP contact Matt Schnepp, State Hazard Mitigation Officer, by phone at (517) 336-2040, facsimile at (517) 333-4987, or e-mail at schneppm1@michigan.gov.

Pre-Disaster Mitigation Program

The Pre-Disaster Mitigation Program (PDMP) provides funding to states and local communities for cost-effective hazard mitigation activities that complement a comprehensive mitigation program and reduce injuries, loss of life, and damage and destruction of property. The PDMP was authorized by Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Section 102 of the Disaster Mitigation Act of 2000. The PDMP is an annually appropriated, nationally competitive grant program.

States, local communities, and Indian Tribes can receive grants for mitigation activities such as planning and the implementation of projects identified through the evaluation of natural hazards. FEMA will set priorities for each appropriation of the PDMP. Eligible activities for the PDMP may include:

- **Planning.** PDMP funds may be used to develop or update state, tribal, and local multi-hazard mitigation plans which meet the planning criteria outlined in 44 CFR Part 201, pursuant to Section 322 of the Stafford Act.

- **Mitigation Projects.** A mitigation project is any action that results in elimination or long-term reduction of damages to public or private property from natural hazards and may include:
  1) Property acquisition or relocation, consistent with the Hazard Mitigation Grant Program, as defined in 44 CFR, 206.434(d) and related guidance.
  2) Structural and non-structural retrofitting for wildfire, seismic, wind or flood hazards (elevation, storm shutters, hurricane clips).
  3) Minor structural hazard control or protection projects that may include vegetation management, stormwater management (culverts, floodgates, retention basins), or shoreline / landslide. (Major flood risk reduction projects such as dikes, levees, floodwalls, seawalls, groins, jetties, dams, beach nourishment, and waterway channelization are not eligible.)

Mitigation measures under the PDMP are funded on a 75% federal / 25% non–federal basis. (Note: Unless by special appropriation of the Michigan Legislature, no state funding will be used for the 25% match. Contributions of other state agencies may be used as an in-kind contribution toward the 25% match.) Grants to small and impoverished communities may receive a federal cost share of up to 90% of the total cost to implement eligible PDMP activities. Small and

impoverished communities must meet the following criteria: 1) be a rural community with population of 3,000 or less; 2) be economically disadvantaged, with residents having an average per capita annual income not exceeding 80% of national per capita income; 3) have a local unemployment rate that exceeds by one percentage point or more, the most recently reported average yearly national unemployment rate; and 4) must meet any other factors identified in the State Plan in which the community is located.)

Applications for PDMP grants are made directly to FEMA via the federal E-Grants system. The MCCERCC reviews all of the applications received and prioritizes applications. The MCCERCC priority order is a factor in the national competitive grant review and scoring process. FEMA makes final project selections and approvals. For additional information about the PDMP contact Matt Schnepp, State Hazard Mitigation Officer, by phone at (517) 336-2040, facsimile at (517) 333-4987, or e-mail at schneppm1@michigan.gov.

Repetitive Flood Claims Program

The Repetitive Flood Claims Program (RFCP) was created pursuant to Section 1323 of the National Flood Insurance Act of 1968, as amended by the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, with the goal of reducing flood damages to individual properties for which one or more claim payments for losses have been made under flood insurance coverage and that will result in the greatest savings to the National Flood Insurance Fund in the shortest period of time. The RFCP was eliminated from FEMA's HMA program in Fiscal Year 2013 but the program was left in this summary of funded mitigation projects to document the funds received in Michigan under this program in Fiscal Years 2006 and 2012. In Fiscal Year 2013, some components of the RFCP were migrated to the FMAP.

RFCP funds were only to mitigate structures located within a community that could not meet the cost share or management capacity requirements of the FMAP. Grants under the RFCP were funded at 100% federal share. The RFCP was an annually appropriated, nationally competitive grant program.

Eligible RFCP project activities included: 1) voluntary acquisition or elevation of qualifying structures, 2) dry floodproofing of qualifying non-residential structures, and 3) minor localized flood risk reduction projects that protect qualifying structures.

Applications for RFCP grants were made directly to FEMA via the federal E-Grants system. FEMA made final project selections and approvals.

The tables on the following pages demonstrate that FEMA's various HMA programs have been successfully used to fund a wide variety of mitigation measures in Michigan – ranging from small, localized measures up to and including statewide initiatives:

Please note that most dollar amounts in the following tables represent complete grant totals. However, in cases where a grant was still active at the time of this writing, the amounts indicated in the tables represent projected amounts from the approved grant application.

Hazard Mitigation Grant Program: Disaster #1028, Underground Freeze, 12/93-5/94

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Village of South Range	Houghton	1028.001	4th Street watermain/service replacements	$86,642	$28,880	$115,522
Village of Boyne Falls	Charlevoix	1028.002	Railroad Street watermain replacement	$44,991	$14,996	$59,987
City of Escanaba	Delta	1028.003	Sewer freeze protection - various locations	$9,432	$3,143	$12,575
Village of Lake Linden	Houghton	1028.005	Osceola/Pine Street watermain replacements	$48,630	$16,209	$64,839
City of Ironwood	Gogebic	1028.007	Cherry Place water main replacement	$66,810	$22,270	$89,080
City of Ironwood	Gogebic	1028.008	Rowe Street watermain/service replacements	$22,354	$7,450	$29,804
City of Ironwood	Gogebic	1028.009	Bonnie Street sewer insulation	$4,380	$1,460	$5,840
City of Ironwood	Gogebic	1028.01	Bundy Street sewer insulation	$4,490	$1,495	$5,985
City of Ishpeming	Marquette	1028.011	Willow Street water line improvements	$18,037	$6,011	$24,048
City of Ishpeming	Marquette	1028.012	Bessemer/Iron Street water line improvement	$57,570	$19,188	$76,758
City of Ishpeming	Marquette	1028.013	Davis Street water line improvement	$71,985	$23,994	$95,979
City of Ishpeming	Marquette	1028.014	Elm Street water line improvement	$47,324	$15,773	$63,097
City of Marquette	Marquette	1028.015	Pine Street/Kaye Avenue/Russell Street water/sewer replacement	$50,200	$350,834	$401,034

Hazard Mitigation Grant Program: Disaster #1028, Underground Freeze, 12/93-5/94 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
City of Boyne City	Charlevoix	1028.016	Clarke Street watermain replacement	$4,212	$1,404	$5,616
City of Boyne City	Charlevoix	1028.017	Elm Street sewermain replacement	$19,500	$6,499	$25,999
City of Boyne City	Charlevoix	1028.018	Clarke Street sewermain replacement	$3,039	$1,011	$4,050
City of Boyne City	Charlevoix	1028.019	Bailey Street watermain replacement	$18,605	$6,201	$24,806
City of Boyne City	Charlevoix	1028.02	West/Trent Street watermain replacement	$22,223	$7,406	$29,629
			Total for Disaster #1028:	**$600,424**	**$534,224**	**$1,134,648**

Hazard Mitigation Grant Program: Disaster #1128, Tornado and Flooding, 6/21-23/96

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Flint River Dike and Erosion Control Board	Saginaw	1128.002	Reconstruct sections of Flint River Dike	$90,000	$51,820	$141,820
City of Marlette	Sanilac	1128.003	Construct retention pond near William Little Subdivision	$371,250	$238,800	$610,050
Michigan Department of Agriculture & Rural Devel.	(State Agency)	1128.004	Digitize soil data for seven county area	$146,245	$95,436	$241,681
Bay County Drain Commission	Bay	1128.005	Garfield Subdivision area flood relief project	$66,729	$22,243	$88,972
Bridgeport Charter Twp.	Saginaw	1128.006	Repair bank and install rip-rap along Cass River	$26,081	$8,919	$35,000
Midland County Drain Commission	Midland	1128.007	Reconstruct Lingle Drain outlet	$36,000	$17,874	$53,874
Saginaw County Road Commission	Saginaw	1128.008	River Road bank stabilization	$172,500	$204,137	$376,637
Bay Area Family "Y" Center	Bay	1128.009	Elevate 2 boiler control boxes in basement	$5,700	$1,900	$7,600
Saginaw County Road Commission	Saginaw	1128.010	Dixie Highway shoulder stabilization	$7,500	$3,763	$11,263
City of Frankenmuth	Tuscola	1128.012	Install sheetpile wall and rehabilitate/stabilize bank of Cass River	$142,500	$65,249	$207,749
City of Bay City	Bay	1128.013	Floodproof city wastewater treatment plant	$389,912	$129,971	$519,883
Bay County Road Commission	Bay	1128.014	Shoulder stabilization on Youngs Ditch Road	$92,954	$30,985	$123,939

Hazard Mitigation Grant Program: Disaster #1128, Tornado and Flooding, 6/21-23/96 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Bay County Road Commission	Bay	1128.015	Shoulder stabilization for Kinney Road	$16,227	$5,408	$21,635
Tuscola County Drain Commission	Tuscola	1128.016	Coleman Drainage District improvements	$123,500	$65,389	$188,889
City of Midland	Midland	1128.020	Acquisition and relocation of business out of Tittabawassee River floodplain **(Project cancelled by company)**	$11,250	$3,750.00	$15,000
			Total for Disaster #1128:	**$1,698,348**	**$945,644**	**$2,643,992**

Hazard Mitigation Grant Program: Disaster #1181, Tornado and Flooding, 7/2/97

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Michigan Department of Agriculture & Rural Devel.	(Statewide)	1181.001	Digitize soil survey data for four county area	$112,500	$88,672	$201,172
City of Hamtramck	Wayne	1181.003	Install warning siren	$15,064	$5,022	$20,086
Genesee County	Genesee	1181.004	Install additional radio activated warning notifiers	$4,890	$1,630	$6,520
City of River Rouge	Wayne	1181.005	Install early warning system	$9,375	$3,592	$12,967
Wayne County Emergency Management Division	Wayne	1181.006	Purchase and distribute NOAA weather radios to schools, hospitals and nursing homes	$15,737	$5,246	$20,983
Groveland Township	Oakland	1181.007	Install three warning sirens	$38,250	$12,750	$51,000
Macomb County	Macomb	1181.008	Install county Emergency Alert System	$10,481	$6,141	$16,622
City of Detroit Neighborhood City Halls	Wayne	1181.009	Implement long-term community outreach	$2,250	$757	$3,007
City of Plymouth	Wayne	1181.012	Install warning sirens	$9,750	$8,220	$17,970
Arenac County Emergency Management	Arenac	1181.013	Install early warning system	$45,000	$30,541	$75,541
Macomb County	Macomb	1181.014	Develop a family preparedness public information program	$4,144	$1,381	$5,525
Michigan Department of Natural Resources	(Statewide)	1181.015	Develop and deliver urban forestry educational program	$15,000	$16,237	$31,237
City of Flint	Genesee	1181.016	Acquire and relocate five flood prone houses in repetitive flood area	$237,702	$79,234	$316,936

Hazard Mitigation Grant Program: Disaster #1181, Tornado and Flooding, 7/2/97 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
City of Flint	Genesee	1181.017	Acquire and relocate 16 floodprone houses in repetitive flood area	$192,862	$64,287	$257,150
City of Flint	Genesee	1181.018	Acquire and relocate eight floodprone houses in repetitive flood area	$359,785	$119,928	$479,714
Brownstown Charter Twp.	Wayne	1181.020	Elevate 12 floodprone homes	$136,125	$60,325	$196,450
Oakland County Radio Communications	Oakland	1181.024	Install wind braces to microwave dishes on radio towers	$10,125	$5,555	$15,680
Bridgeport Charter Twp.	Saginaw	1181.025	Remove log jam in river and rebuild/stabilize banks with rip-rap	$28,613	$9,537	$38,150
Ottawa County Drain Commission	Ottawa	1181.028	Bore/jack additional culvert under M-21(Rose Drain)	$235,525	$91,843	$327,368
Ottawa County Drain Commission	Ottawa	1181.029	Construct relief drain on existing stormwater basins	$30,000	$80,000	$110,000
Michigan State Housing Development Authority	(Statewide)	1181.030	Wind-proof 75-100 homes in the Detroit area	$7,335	$2,445	$9,780
Detroit Fire Department	Wayne	1181.032	Install warning siren on Cadillac Building	$13,875	$4,745	$18,620
City of Holland (in conjunction with MDARD)	Ottawa	1181.033	Purchase and remove two homes located in floodway	$108,750	$60,490	$169,240
Michigan Department of Environmental Quality	(Statewide)	1181.036	Digitize floodplain mapping of the Grand River	$29,262	$9,927	$39,189
City of Birmingham	Oakland	1181.042	Install ejector pumps, backflow preventers, or standpipes in flood prone houses	$211,392	$70,464	$281,856
Ottawa County	Ottawa	1181.043	Install NOAA weather radio transmitter for portions of Ottawa, Muskegon and Allegan Co.	$16,492	$17,689	$34,181
Grand Traverse County	Grand Traverse	1181.044	Phase I: study for area floodplain mapping; Phase II: acquisition / elevation of flood prone structures	$52,500	$17,500	$70,000

Hazard Mitigation Grant Program: Disaster #1181, Tornado and Flooding, 7/2/97 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
City of Gibraltar	Wayne	1181.047	Elevate floodprone homes	$124,506	$41,502	$166,008
Village of Reese	Tuscola	1181.048	Acquire and remove two homes located in floodway	$153,961	$51,320	$205,281
Bay County Drain Commission	Bay	1181.050	Acquire and remove several floodprone homes	$609,005	$151	$609,156
City of Ishpeming	Marquette	1181.052	Insulate city water and sewer infrastructure to protect from ground freeze	$400,414	$133,441	$533,855
Tuscola County Drain Commission	Tuscola	1181.053	Construct flood relief drain in Village of Reese	$213,743	$71,248	$284,991
Antrim Conservation District	Antrim	1181.055	Safety upgrades for Cravens Pond Dam and Richardi Dam in Village of Bellaire	$276,938	$158,147	$435,085
			Total for Disaster #1181:	**$3,731,351**	**$1,329,969**	**$5,061,320**

Hazard Mitigation Grant Program Disaster: #1226, Thunderstorms and High Winds, 5/31/98

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Georgetown Charter Twp.	Ottawa	1226.001	Move existing warning sirens and add sirens to warning system	$48,000	$17,841	$65,841
Alpine Twp.	Kent	1226.003	Install three warning sirens (electronically operated by Emergency Dispatch)	$40,295	$13,432	$53,727
Orleans Twp.	Ionia	1226.004	Install warning sirens near two populated areas	$25,349	$8,450	$33,799
City of Coopersville	Ottawa	1226.005	Install early warning siren with generator; install two generators at existing sites	$14,419	$4,806	$19,225
City of Alma	Gratiot	1226.006	Install warning siren	$14,852	$6,317	$21,169
City of Ionia	Ionia	1226.007	Install four warning sirens	$51,870	$17,290	$69,160
City of Allen Park	Wayne	1226.008	Install four warning sirens	$48,416	$33,399	$81,815
City of Birmingham	Oakland	1226.009	Install two warning sirens	$32,594	$10,865	$43,459
City of Rochester Hills	Oakland	1226.01	Install two warning sirens	$22,755	$7,585	$30,340
City of Belding	Ionia	1226.011	Install three warning sirens	$13,404	$6,182	$19,586
Muskegon County Airport	Muskegon	1226.013	Modify roof ballast system of airport passenger terminal building	$6,592	$2,198	$8,790
Flint River Dike and Erosion Control Board	Saginaw	1226.015	Stump, tree, and debris removal; construction of offset earth dikes	$112,979	$37,659	$150,638

Hazard Mitigation Grant Program: Disaster #1226, Thunderstorms and High Winds, 5/31/98 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Tuscola County Drain Commission	Tuscola	1226.016	Study and implement flood mitigation measures for Moore Drain	$104,982	$34,994	$139,976
Mackinac County	Mackinac	1226.017	Install and house an existing generator at new shelter facility	$15,000	$17,669	$32,669
Monroe County Drain Commission	Monroe	1226.018	Modify, rebuild, retrofit existing intake structure	$32,462	$10,821	$43,283
City of Grand Haven	Ottawa	1226.019	Phase I Study: Mitigation of power source problems	$10,875	$3,625	$14,500
City of Grand Haven	Ottawa	1226.02	Rewire existing generators	$56,237	$18,746	$74,983
Village of Spring Lake	Ottawa	1226.021	Replace Village Hall roof with reinforced roof buttressed by support columns	$1,594	$531	$2,125
City of Birmingham	Oakland	1226.022	Install seawall along river at several businesses and offices	$67,210	$22,403	$89,613
Bay County Drain Commission	Bay	1226.025	Floodproof 36 floodprone houses (subject to 1226.034 study findings)	$264,415	$88,138	$352,553
City of Wyoming	Kent	1226.026	Replace bridge over creek in industrial park with improved design to reduce flood damage	$451,144	$150,381	$601,525
Flint River Dike and Erosion Control Board	Saginaw	1226.027	Create a retention basin by constructing a new dike and removing the old one	$150,000	$185,797	$335,797
Iosco County Drain Commission	Iosco	1226.028	Install rock rip-rap along banks of Crosby Road	$7,511	$2,503	$10,014
Huron County Drain Commission	Huron	1226.03	Drain reconstruction and flow diversion	$114,750	$101,540	$216,290
City of Birmingham	Oakland	1226.031	Purchase NOAA weather radios	$2,668	$889	$3,557

Hazard Mitigation Grant Program: Disaster #1226, Thunderstorms and High Winds, 5/31/98 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Isabella County	Isabella	1226.032	Install NOAA transmitter - communication system for severe weather alerts	$44,059	$14,685	$58,744
Michigan Department of Environmental Quality	(Statewide)	1226.033	Scan and store on disk all flood modeling since 1968 by NFIP, for future distribution	$14,560	$10,029	$24,590
Bay County Drain Commission	Bay	1226.034	Flood study and designs for projects 1226.024 and 1226.025	$39,499	$13,146	$52,645
Michigan Department of Environmental Quality	Ottawa	1226.037	Study for acquisition of floodprone homes project on Macatawa River (1226.044)	$80,540	$26,847	$107,386
City of Midland	Midland	1226.039	Acquire eight properties in the floodplain (8 properties proposed, only 1 was purchased)	$11,387	$3,795	$15,182
City of Gibraltar	Wayne	1226.04	Elevate floodprone structures	$51,744	$29,874	$81,618
City of Luna Pier	Monroe	1226.042	Elevate floodprone structures	$168,740	$56,247	$224,986
Clinton Charter Twp.	Macomb	1226.043	Acquire flood prone properties (project canceled by applicant)	$2,250	$750	$3,000
Ottawa County Parks and Recreation Commission	Ottawa	1226.044	Acquire and remove flood prone structures on the Macatawa River	$243,546	$81,182	$324,728
			Total for Disaster #1226:	**$2,366,697**	**$1,040,615**	**$3,407,312**

Hazard Mitigation Grant Program: Disaster #1237, Thunderstorms and High Winds, 7/21-22/98

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Otsego County RACES Radio Group	Otsego	1237.001	Purchase NOAA weather alert monitors	$1,575	$531	$2,106
City of Inkster	Wayne	1237.002	Install two warning sirens	$27,750	$12,150	$39,900
City of St. Clair Shores	Macomb	1237.003	Install four warning sirens	$27,750	$73,683	$101,433
VESSA	Kent	1237.004	Enhance early warning capability	$30,000	$10,159	$40,159
Antrim County	Antrim	1237.005	Purchase NOAA weather alert monitors	$9,320	$3,106	$12,426
Macomb County	Macomb	1237.009	Lightning protection-grounding, phasing	$26,100	$8,700	$34,800
Macomb County	Macomb	1237.010	Lightning protection-grounding, phasing	$7,395	$2,465	$9,860
City of Lowell	Kent	1237.014	Install two warning sirens; upgrade two existing sirens	$26,400	$8,800	$35,200
City of Wyoming	Kent	1237.015	Acquire five floodway properties	$280,224	$93,155	$373,379
			Total for Disaster #1237:	**$436,514**	**$212,749**	**$649,263**

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Ada Twp.	Kent	1346.538	Install six warning sirens	$81,375	$52,945	$134,320
Alcona County Road Commission	Alcona	1346.65	Replace undersized culverts with bridge	$180,000	$117,992	$297,992
Allegan County Drain Commission	Allegan	1346.71	Install flood walls and storm water pump	$256,923	$85,641	$342,564
Alpena County Road Commission	Alpena	1346.62	Culvert / bridge upgrade	$69,830	$23,277	$93,107
City of Alpena	Alpena	1346.43	Culvert upgrade	$82,500	$46,590	$129,090
City of Alpena	Alpena	1346.535	Install two warning sirens	$27,258	$9,125	$36,383
City of Alpena	Alpena	1346.6	Water recycling plant emergency backup generator	$187,500	$120,460	$307,960
Alpine Twp.	Kent	1346.529	Install warning siren	$13,500	$5,178	$18,678
Bay County Drain Commission	Bay	1346.89	Drainage improvements in Garfield Subdivision	$971,226	$323,742	$1,294,968
Blackman Charter Twp.	Jackson	1346.17	Portable generator for sewer	$22,422	$11,640	$34,062
Blackman Charter Twp.	Jackson	1346.540	Install four warning sirens	$54,375	$19,200	$73,575
Bloomfield Twp.	Oakland	1346.13	Franklin Branch Streambank Stabilization Project	$1,605,000	$949,503	$2,554,503
Bruce Twp. and Village of Romeo	Macomb	1346.528	Install four warning sirens	$54,375	$21,225	$75,600

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Charlevoix County Road Commission	Charlevoix	1346.67	Replace two culverts with box culvert	$167,045	$78,400	$245,445
Cheboygan County	Cheboygan	1346.9	Mullett Lake bank stabilization	$13,407	$4,469	$17,876
Chippewa County Road Commission	Chippewa	1346.81	Culvert and bank stabilization	$424,989	$141,663	$566,652
Village of Clinton	Lenawee	1346.33	Construct retention basin	$110,586	$36,862	$147,448
Commerce Township	Oakland	1346.59	Flood mitigation study	$102,097	$34,032	$136,130
City of Coopersville	Ottawa	1346.87	Culvert replacement and acquisition of one floodprone house	$414,756	$138,381	$553,138
Crawford County	Crawford	1346.503	NOAA weather alert radio distribution	$1,475	$492	$1,967
City of Crystal Falls	Iron	1346.27	North 6th Street stormwater conveyance	$64,285	$32,624	$96,909
Central Upper Peninsula Planning and Development	Upper Peninsula	1346.523	Develop hazard analyses and identify mitigation needs for six UP counties	$75,000	$26,332	$101,332
Daycroft Montessori School	Washtenaw	1346.56	Construct floodwall around school	$84,789	$28,263	$113,052
City of Dearborn Heights	Wayne	1346.511	Ecorse Creek warning sensor	$9,255	$3,095	$12,350
City of Dearborn Heights	Wayne	1346.522	Install two warning sirens, plus electrical hookup and remote activation	$24,443	$8,147	$32,590

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Dickinson County Emergency Services	Dickinson	1346.72	Floodproof Cornish Pump Museum	$14,918	$4,973	$19,890
City of Dowagiac	Cass	1346.526	Install three warning sirens	$40,875	$20,425	$61,300
City of Fennville	Allegan	1346.539	Install warning siren	$12,279	$4,093	$16,371
Flint River Dike and Erosion Control Board	Saginaw	1346.53	Complete Flint River flood risk reduction project	$1,845,000	$568,121	$2,413,121
City of Gaastra	Iron	1346.54	Relocate main sewer line and stabilize bank next to abandoned Baltic Mine Pit	$36,078	$12,026	$48,104
Genesee County Drain Commission	Genesee	1346.82	Floodproof Pumping Station No. 1 in Flint Twp.	$559,068	$186,356	$745,423
Genesee County Drain Commission	Genesee	1346.83	Elevate and floodproof manholes in Flint Twp.	$274,697	$91,566	$366,262
City of Grand Blanc	Genesee	1346.29	Bella Vista Subdivision drainage system	$553,252	$184,417	$737,670
City of Grand Blanc	Genesee	1346.30	Indian Hills Subdivision drainage system	$195,000	$65,205	$260,205
City of Grand Blanc	Genesee	1346.88	Acquire five floodprone homes; storm sewer upgrades	$1,230,050	$410,017	$1,640,067
City of Grand Rapids	Kent	1346.68	Plaster Creek flood mitigation	$571,658	$425,652	$997,310
Grand Traverse County	Grand Traverse	1346.502	NOAA weather alert radio distribution	$5,242	$1,747	$6,989
Gratiot County Road Commission	Gratiot	1346.77	Lakeside Drive culvert upgrade	$262,500	$121,512	$384,012

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Grand Traverse Bay Ottawa / Chippewa Indians	(Native American Tribe)	1346.536	Install warning siren	$13,875	$8,100	$21,975
City of Holland	Ottawa	1346.524	Install warning siren	$13,155	$6,145	$19,300
City of Hudsonville	Ottawa	1346.530	Install warning siren	$13,875	$6,547	$20,422
Iosco County Road Commission	Iosco	1346.76	Update undersized culvert and enlarge / deepen drainage channels	$60,000	$84,682	$144,682
Village of Kent City	Kent	1346.34	Upgrade undersized culvert and replace with box beam bridge	$257,627	$85,876	$343,503
City of Kentwood	Kent	1346.23	Ridgemoor Center flood mitigation (stormwater control)	$568,818	$189,606	$758,424
Livingston County Drain Commission	Livingston	1346.61	Flood mitigation study	$4,188	$1,396	$5,583
Livingston County Drain Commission	Livingston	1346.75	Acquisition and relocation of floodprone homes	$438,665	$146,222	$584,886
City of Luna Pier	Monroe	1346.504	Install permanent elevation benchmark monuments along Lake Erie	$16,539	$5,513	$22,052
Lyon Township	Oakland	1346.42	Stormwater drainage improvements	$255,715	$85,238	$340,953
Macomb County	Macomb	1346.506	Purchase weather alert radios	$15,000	$5,257	$20,257
Macomb County	Macomb	1346.507	Streambank and road crossing inventory (for Middle Branch of the Clinton River)	$22,493	$8,206	$30,699
Macomb County Emergency Management	Macomb	1346.51	Acquisition of 2 vacant parcels and acquisition/demolition of 4 homes	$571,673	$190,558	$762,231

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Macomb County Public Works Office	Macomb	1346.44	Upgrade two pumping stations	$225,000	$494,227	$719,227
Macomb Twp.	Macomb	1346.534	Install two warning sirens	$27,375	$20,725	$48,100
City of Manton	Wexford	1346.79	Floodproof wastewater treatment plant	$634,823	$211,608	$846,431
Marquette County Conservation District	Marquette	1346.38	Dam removal	$94,971	$31,657	$126,628
Michigan Association of Broadcasters	(Statewide)	1346.541	Emergency Alert System (EAS) upgrade	$54,525	$18,488	$73,013
Michigan Department of Environmental Quality	(Statewide)	1346.521	Develop floodplain management guidance document	$6,000	$2,000	$8,000
Michigan Department of Natural Resources	(Southern Michigan)	1346.517	Develop FIREWISE communities in Southern Michigan	$202,500	$102,452	$304,952
Michigan Department of Natural Resources	(Various Upper Peninsula Sites)	1346.537	Closing and capping abandoned mines	$193,518	$65,726	$259,244
Michigan Department of State Police/EMHSD	(Statewide)	1346.90	Administering consultant for statewide repetitive flood loss properties project	$194,796	$0	$194,796
Michigan Department of State Police/EMHSD	(Statewide)	1346.91	Construction costs (elevation or acquisition) for repetitive flood loss properties project	$754,034	$251,346	$1,005,379
Michigan Department of State Police/EMHSD	(Statewide)	1346.519	Produce and distribute emergency management educational materials	$15,000	$5,000	$20,000
Michigan Department of State Police/EMHSD	(Statewide)	1346.518	Develop and implement statewide mitigation marketing and public education program	$19,717	$0	$19,717
Michigan Department of State Police/EMHSD	(State Agency)	1346.516	Expand and enhance Geographic Information Systems (GIS) capabilities and products	$181,732	$60,577	$242,310

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Michigan Department of State Police/EMHSD	(Statewide)	1346.802	Develop hazard mitigation plans in all emergency management program jurisdictions	$2,033,313	$774,843	$2,808,156
Michigan Department of Transportation	Baraga	1346.45	Shoreline protection on US-41 at Red Rocks	$41,255	$13,752	$55,007
Michigan Department of Transportation	Keweenaw	1346.46	Upgrade culvert on M-26 at Jacob Falls	$112,500	$38,152	$150,652
Michigan Department of Transportation	Marquette	1346.47	Shoreline protection and stabilization of sand dunes on M-28	$168,750	$94,302	$263,052
Michigan Department of Transportation	Baraga	1346.48	Upgrade culverts at Alberta Ponds	$15,000	$8,695	$23,695
Michigan Department of Transportation	Gogebic	1346.49	Upgrade culvert on US-2 at Black River	$112,500	$172,497	$284,997
Michigan Department of Transportation	Mackinac	1346.50	Stabilize sand dune along US-2	$168,750	$72,335	$241,085
Michigan State University	Ingham	1346.11	Construct storm shelters (“safe rooms”) in the Spartan Child Development Center	$123,750	$41,250	$165,000
Michigan Technological University	Houghton	1346.501	Research on the development of a composite shear wall for resisting high wind loads	$34,500	$11,562	$46,062
City of Montague	Muskegon	1346.66	Purchase and remove a commercial structure from the floodplain	$251,331	$83,777	$335,108
Northwest County Drainage District	Tuscola	1346.543	Install automated weather station	$4,066	$1,355	$5,421
City of Novi	Oakland	1346.31	Upgrade undersized culvert	$69,706	$23,235	$92,941
Osceola County	Lake, Mason, Osceola	1346.510	Upgrade NOAA weather radio coverage in three county area	$60,000	$23,821	$83,821
Ottawa County Parks and Recreation Commission	Ottawa	1346.93	Purchase and remove a home along the Grand River	$187,500	$83,230	$270,730

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Ottawa County Road Commission	Ottawa	1346.60	Upgrade undersized culvert and stabilize with rip-rap	$82,500	$73,916	$156,416
Ottawa County	Ottawa	1346.505	Purchase and distribute NOAA weather radios	$12,000	$4,015	$16,015
City of Parchment	Kalamazoo	1346.52	Improve / upgrade stormwater collection system	$63,239	$21,080	$84,318
City of Port Huron	St. Clair	1346.10	Standby power for water treatment plant	$175,253	$58,418	$233,671
City of Portland	Ionia	1346.80	Bury power lines to prevent recurring outages	$207,620	$69,207	$276,827
Rich Intercounty Drainage District	Lapeer	1346.545	Install automated weather station	$4,066	$1,355	$5,421
City of Rose City	Ogemaw	1346.70	Upgrade undersized culvert	$150,000	$52,325	$202,325
Sebewaing River Drainage Board	Huron	1346.57	Construct Sebewaing River emergency floodway	$261,750	$109,590	$371,340
Shelby Twp.	Macomb	1346.532	Install four warning sirens	$48,375	$20,305	$68,680
South Branch Cass River Intercounty Drainage District	Sanilac	1346.544	Install automated weather station	$4,066	$1,355	$5,421
South Branch, Mill Creek Drainage District	St. Clair	1346.542	Install automated weather station	$4,066	$1,355	$5,421
City of Southgate	Oakland	1346.15	Construct sanitary relief sewer to reduce flooding	$100,211	$33,404	$133,614
Spring Lake Twp.	Ottawa	1346.531	Install two warning sirens	$27,375	$10,157	$37,532

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
City of Standish	Arenac	1346.63	Install box culvert	$82,875	$57,424	$140,299
Statewide Services for the Hearing Impaired	Genesee	1346.514	Deaf elderly / deaf disabled early warning system	$29,704	$2,952	$32,656
City of Sturgis	St. Joseph	1346.64	Stormwater diversion project	$245,381	$81,794	$327,175
Village of Sunfield	Eaton	1346.74	Storm sewer upgrade	$225,000	$95,086	$320,086
Tuscola County Drain Commission	Tuscola	1346.18	Flood mitigation measures in the Moore Drain, City of Vassar	$1,785,000	$1,125,253	$2,910,253
City of Utica	Macomb	1346.525	Install warning siren	$11,625	$5,175	$16,800
City of Utica	Macomb	1346.85	Elevation of 10 homes	$134,465	$44,822	$179,286
Van Buren Charter Twp.	Wayne	1346.19	Install backup electrical generators at nine sanitary sewer lift stations	$244,670	$81,557	$326,227
Van Buren Charter Twp.	Wayne	1346.21	Flood mitigation on North I-94 Service Drive	$82,979	$27,660	$110,639
Van Buren Charter Twp.	Wayne	1346.22	Install stormwater drains	$226,687	$75,562	$302,249
Van Buren County Drain Commission	Van Buren	1346.55	Construct stormwater detention basin and outlet structure	$4,260	$1,420	$5,680
Van Buren County Drain Commission	Van Buren	1346.69	Construct detention basin in South Haven	$312,375	$162,237	$474,612
Washington Twp.	Macomb	1346.527	Install three warning sirens	$40,875	$25,475	$66,350

Hazard Mitigation Grant Program: Disaster #1346, Urban Flooding, 9/10-11/00 (cont.)

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Washtenaw County Community College	Washtenaw	1346.533	Install warning siren	$12,900	$4,300	$17,200
Waterford Twp.	Oakland	1346.508	Engineering and feasibility study for lift station improvements	$17,250	$22,733	$39,983
Waterford Twp.	Oakland	1346.509	Education and public awareness program to reduce storm-related flooding	$5,686	$1,895	$7,582
City of Wayne	Wayne	1346.4	Backup electrical power supply for Stellwagen Sanitary Sewer Pump Station	$40,418	$13,473	$53,891
Wayne County	Wayne	1346.20	Upgrade controls at Pine Street Pumping Station	$85,650	$34,805	$120,455
Wayne County Department of Environment	Wayne	1346.25	Backflow preventers and sump pumps to relieve downriver area basement flooding	$267,414	$107,486	$374,900
City of Williamston	Ingham	1346.73	Bank stabilization / erosion control on Red Cedar River	$28,594	$9,531	$38,126
City of Wyandotte	Wayne	1346.12	Purchase and install 2,300 restricted catch basin covers to reduce sewer backups	$162,070	$54,023	$216,093
			Total for Disaster #1346:	**$24,123,962**	**$10,436,489**	**$34,560,449**

Hazard Mitigation Grant Program: Disaster #1413, Flooding, 4/10-30/02

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Charlevoix County Road Commission	Charlevoix	1413.6	Culvert upgrade - Porter Creek Crossing at Anderson and Behling Roads	$21,841	$15,206	$37,047
Emmet County Road Commission	Emmet	1413.1	Replace a culvert with a bridge at Mitchell Road over Minnehaha Creek	$56,436	$86,519	$142,955
Houghton County Road Commission	Houghton	1413.7	Culvert upgrade – Elm River at Old Rink Road	$24,759	$13,151	$37,910
City of Ironwood	Gogebic	1413.4	Insulate a water tower	$72,820	$57,214	$130,034
Lac Vieux Desert Tribal Reservation	(Native American Tribe)	1413.8	Underground conduit extension to mitigate stormwater flooding	$46,735	$17,444	$64,179
Michigan Department of Transportation	Marquette	1413.2	Culvert replacement/upgrade and grade lift on M-35	$149,280	$56,700	$205,980
Michigan Department of Transportation	Houghton	1413.3	Raise Roadway and equalize culvert on M-203	$235,936	$86,662	$322,598
Saginaw County Public Works Commissioner	Saginaw	1413.5	Construct a stormwater relief drain	$89,554	$260,303	$349,857
			Total for Disaster #1413	**$697,361**	**$593,199**	**$1,290,560**

Hazard Mitigation Grant Program: Disaster #1527, Severe Storms and Flooding, 5/20/04–6/8/04

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Barry County	Barry	A1527.13	Elevation of 13 homes	$180,583	$61,771	$242,354
Bridgeton Township	Newaygo	A1527.11	Elevation of 1 home	$12,000	$6,638	$18,638
Dearborn Heights, City of	Wayne	A1527.2	Sump pump and backflow valve installation at residential locations	$76,401	$35,264	$111,665
Genesee County Drain Commissioner	Genesee	A1527.8	Site acquisition and demolition	$82,800	$31,597	$114,397
Georgetown Township	Ottawa	A1527.3	Installation of 4 early warning sirens	$58,500	$19,500	$78,000
Kent County	Kent	A1527.10	Acquisition of 3 homes	$430,221	$143,406	$573,627
Ray Township	Macomb	A1527.4	Installation of 1 early warning siren	$17,250	$8,970	$26,220
Robinson Township	Ottawa	A1527.5	Installation of 2 early warning sirens	$27,900	$9,300	$37,200
Rutland Township	Barry	A1527.17	Acquisition of 1 home	$67,830	$22,610	$90,441
Salem Township	Allegan	A1527.6	Installation of 2 early warning sirens	$26,250	$8,750	$35,000
St. Clair County Road Commission	St. Clair	A1527.15	Removal of twin arch pipes and installation of large box culvert to increase flow capacity	$87,876	$29,292	$117,168
Wayne Township	Cass	A1527.7	Installation of 1 early warning siren	$19,665	$6,555	$26,220
			Total for Disaster #1527	**$1,087,275**	**$383,654**	**$1,470,929**

Hazard Mitigation Grant Program: Disaster #1777, Severe Storms and Flooding, 6/6/08–6/13/08

Applicant	County	Application #	Project	Federal Investment	Local Investment	Total Investment
Ann Arbor, City of	Washtenaw	A1777.12	Demolition of city building from floodway	$25,632	$8,544	$34,176
Blendon Township	Ottawa	A1777.1	Installation of 2 early warning sirens	$31,111	$10,370	$41,481
Bloomfield Township	Oakland	A1777.7	Local mitigation plan development	$10,822	$3,607	$14,430
Caledonia Township	Kent	A1777.2	Installation of 2 early warning sirens	$29,850	$15,721	$45,571
Caledonia, Village of	Kent	A1777.3	Installation of 1 early warning siren	$14,925	$7,337	$22,262
Commerce Township	Oakland	A1777.4	Installation of 4 early warning sirens	$59,376	$19,792	$79,168
Eastern Michigan University	Washtenaw	A1777.10	Local mitigation plan development	$12,010	$23,259	$35,269
Grand Haven, City of	Ottawa	A1777.5	Installation of 1 early warning siren	$14,025	$4,675	$18,700
Lansing, City of	Ingham	A1777.11	Acquisition-Demo (20 properties)	$752,897	250,965	$1,003,862
Plainfield Charter Twp.	Kent	A1777.9	Acquisition-Demo (13 properties)	$1,124,325	374,775	$1,499,100
Pokagon Band of Potawatomi Indians	Cass	A1777.8	Tribal mitigation plan development	$15,000	$5,000	$20,000
Springfield Township	Oakland	A1777.6	Installation of 3 early warning sirens	$44,532	$14,844	$59,376
			Total for Disaster #1777	**$2,134,505**	**$738,889**	**$2,889,804**
			Totals for Disasters #1028, 1128, 1181, 1226, 1237, 1346, 1413, 1527, and 1777:	**$36,876,437**	**$16,215,432**	**$53,108,277**

Summary of Flood Mitigation Assistance Program (FMAP) Projects Funded in Michigan: 1996-2013

Applicant	County	Fiscal Year	Project	Federal Investment	Local Investment	Total Investment
Vassar, City of	Tuscola	1996/97	Development of flood hazard mitigation plan.	$9,678	$3,226	$12,904
Midland, City of	Midland	1996/97	Development of flood hazard mitigation plan.	$4,098	$1,366	$5,464
Vassar, City of	Tuscola	1996/97	Technical assistance in the development of flood hazard mitigation plan.	$15,890	$5,297	$21,187
New Baltimore, City of	Macomb	1996/97	Flood mitigation project in support of flood hazard mitigation plan.	$15,000	$5,613	$20,613
Clinton Township	Macomb	1996/97	Flood mitigation project in support of flood hazard mitigation plan.	$36,375	$21,687	$58,062
Macomb County	Macomb	1998	Development of flood hazard mitigation plan.	$7,850	$4,150	$12,000
Michigan Dept. of Environmental Quality	(State Agency)	1998	Identify high-risk flood zones in unmapped areas of Macomb County and update hydrology.	$16,030	$5,343	$21,373
Vassar, City of	Tuscola	1998	Flood acquisition/relocation project in support of flood hazard mitigation plan.	$126,118	$42,039	$168,157
Dearborn Heights, City of	Wayne	1999	Development of flood hazard mitigation plan.	$6,740	$2,247	$8,986
Dearborn Heights, City of	Wayne	1999	Technical assistance in the development of flood hazard mitigation plan.	$15,310	$5,103	$20,413
Allegan County	Allegan	2000	Development of flood hazard mitigation plan.	$14,200	$4,733	$18,933
Allegan County	Allegan	2000	Technical assistance in the development of flood hazard mitigation plan.	$15,050	$5,017	$20,067
Vassar, City of	Tuscola	2000	Flood mitigation project in support of flood hazard mitigation plan.	$80,787	$26,929	$107,716
Marquette County	Marquette	2001	Development of flood hazard mitigation plan.	$13,900	$4,633	$18,533
Marquette County	Marquette	2001	Technical assistance in the development of flood hazard mitigation plan.	$14,750	$4,917	$19,667
Frenchtown Township	Monroe	2002	Development of flood hazard mitigation plan.	$10,275	$7,318	$17,593
Frenchtown Township	Monroe	2002	Technical assistance in the development of flood hazard mitigation plan.	$9,413	$6,704	$16,117
Ann Arbor, City of	Washtenaw	2003	Development of flood hazard mitigation plan.	$12,600	$4,207	$16,807
Ann Arbor, City of	Washtenaw	2003	Technical assistance in the development of flood hazard mitigation plan.	$11,450	$3,817	$15,267
Bridgeton Township	Newaygo	2004	Development of flood hazard mitigation plan.	$12,500	$4,167	$16,667
Bridgeton Township	Newaygo	2004	Technical assistance in the development of flood hazard mitigation plan.	$13,120	$4,373	$17,493
Wakefield, City of	Gogebic	2005	Development of flood hazard mitigation plan.	$13,700	$4,567	$18,267
Wakefield, City of	Gogebic	2005	Technical assistance in the development of flood hazard mitigation plan.	$14,439	$4,814	$19,253

Summary of Flood Mitigation Assistance Program (FMAP) Projects Funded in Michigan: 1996-2013 (cont.)

Applicant	County	Fiscal Year	Project	Federal Investment	Local Investment	Total Investment
Kalamazoo, City of	Kalamazoo	2005	Development of flood hazard mitigation plan.	$13,900	$6,980	$20,880
Plainfield Township	Kent	2005	Development of flood hazard mitigation plan.	$13,700	$18,312	$32,012
Bloomfield Township	Oakland	2006	Development of flood hazard mitigation plan.	$15,899	$5,653	$21,552
Ottawa County	Ottawa	2008	Update of flood hazard mitigation plan.	$1,058	$367	$1,424
Plainfield Township	Kent	2008	Elevation of flood prone homes	$8,158	$3,332	$11,490
Plainfield Township	Kent	2009	Acquisition/demolition of 12 flood prone homes	$1,155,853	$385,284	$1,541,137
Midland, City of	Midland	*2013	Acquisition of commercial facility from floodplain	$1,029,693	$0	$1,029,693
			TOTALS TO DATE: FY 1996/97-2013	**$2,727,532**	**$602,195**	**$3,329,727**

Three types of grants have been available under the FMAP: **Planning; Technical Assistance; Project**. **Planning Grants** provide assistance to states and local communities in developing flood mitigation plans. **Technical Assistance Grants** (no longer available) enabled states to provide technical assistance to applicants in applying for FMAP funds or in implementing approved projects. **Project Grants** help fund eligible flood mitigation projects that reduce the risk of flood damage to NFIP-insurable structures. The table above will not necessarily identify one of each type of grant for each fiscal year. In some fiscal years, allocations were returned to FEMA if viable grant applications were not submitted by local entities. In Fiscal Year 2009, the FMAP became a nationally competitive grant program (with no state specific allocations) that could fund mitigation projects or flood mitigation plans.

*At the time of this writing, funds have not yet been obligated for this grant.

Summary of Pre-Disaster Mitigation Program (PDMP) Projects Funded in Michigan: 2002-2013

Applicant	County	Fiscal Year	Project	Federal Investment	Local Investment	Total Investment
Canton Township	Wayne	2002	Development of an all-hazard mitigation plan.	$14,627	$30,239	$44,867
Detroit, City of	Wayne	2002	Development of an all-hazard mitigation plan.	$23,357	$55,843	$79,200
Lincoln Park, City of	Wayne	2002	Development of an all-hazard mitigation plan.	$12,630	$30,195	$42,825
Livonia, City of	Wayne	2002	Development of an all-hazard mitigation plan.	$9,280	$22,186	$31,465
Romulus, City of	Wayne	2002	Development of an all-hazard mitigation plan.	$4,905	$11,728	$16,633
Wayne County	Wayne	2002	Development of an all-hazard mitigation plan.	$156,948	$140,935	$297,883
Barry County	Barry	2003	Development of an all-hazard mitigation plan.	$2,571	$7,711	$10,282
Berrien County	Berrien	2003	Development of an all-hazard mitigation plan.	$7,437	$21,195	$28,632
Saginaw County	Saginaw	2003	Development of an all-hazard mitigation plan.	$15,063	$30,021	$45,084
St. Clair County	St. Clair	2003	Development of an all-hazard mitigation plan.	$16,699	$47,591	$64,290
Van Buren County	Van Buren	2003	Development of an all-hazard mitigation plan.	$13,102	$21,000	$34,102
Robinson Township	Ottawa	2005	Acquisition of 4 structures and 8 vacant parcels out of the Grand River floodplain	$703,552	$234,518	$938,070
Robinson Township	Ottawa	2005	Acquisition of 5 structures and 1 vacant parcels out of the Grand River floodplain	$221,502	$664,505	$886,007
Michigan Technological University	Houghton	2005	Development of an all hazard mitigation plan	$56,250	$18,750	$75,000
Ada Township	Kent	2006	Acquisition and demolition of 1 structure	$63,824	$21,275	$85,099
Lansing, City of	Ingham	2008	Acquisition of 22 residential properties from the floodplain	$534,052	$209,291	$743,343
Detroit, City of	Wayne	*2008	Burial of overhead power lines	$1,580,074	$526,692	$2,106,766
Marquette County	Marquette	2009	Dune stabilization along state highway	$99,596	$33,267	$132,863
Marquette County	Marquette	2009	Culvert upgrade	$76,470	$25,490	$101,960
University of Michigan – Flint	Genesee	2009	Development of an all-hazard mitigation plan.	$45,048	$15,333	$60,381
Ann Arbor, City of	Washtenaw	2009	Acquisition of 1 home and 1 vacant parcel	$169,966	$56,655	$226,622
Wayne County	Wayne	2009	Install 18 outdoor warning sirens	$270,825	$90,275	$361,100
Gogebic County	Gogebic	2010	Update of a county hazard mitigation plan	$29,959	$10,012	$39,971
Houghton County	Houghton	2010	Update of 5 county hazard mitigation plans	$30,070	$10,030	$40,100

Summary of Pre-Disaster Mitigation Program (PDMP) Projects Funded in Michigan: 2002-2013 (cont.)

Applicant	County	Fiscal Year	Project	Federal Investment	Local Investment	Total Investment
Oakland County	Oakland	2010	Update of a county hazard mitigation plan	$132,225	$45,164	$177,389
Chippewa County	Chippewa	2011	Update of 3 county hazard mitigation plans	$26,670	$9,381	$36,051
Delta County	Delta	2011	Update of 4 county hazard mitigation plans	$50,248	$16,752	$67,000
Detroit, City of	Wayne	2011	Update of the Detroit Hazard Mitigation Plan	$47,775	$15,925	$63,700
Ingham County	Ingham	2011	Update of 3 county hazard mitigation plans	$81,663	$30,832	$112,495
Kalamazoo, City of	Kalamazoo	2011	Acquisition of 9 homes in the floodplain.	$309,538	$103,799	$413,337
Kent County	Kent	2011	Acquisition of 8 homes in the floodplain.	$856,715	$285,572	$1,142,286
Marquette County	Marquette	2011	Planning update for Marquette County HMP.	$29,115	$9,705	$38,820
Oceana County	Oceana	2011	Update of 5 county hazard mitigation plans	$250,000	$83,335	$333,335
Otsego County	Otsego	2011	Update of 7 county hazard mitigation plans	$85,575	$28,675	$114,250
Plainfield Township	Kent	2011	Acquisition of 6 homes in the floodplain.	$480,300	$160,100	$640,400
Allegan County	Allegan	2012	Planning update for Allegan County	$18,150	$6,050	$24,200
Emmet County	Emmet	2012	Update of 3 county hazard mitigation plans	$34,634	$11,545	$46,178
Mount Clemens, City of		2012	Stormwater Improvement Project	$62,500	$27,500	$90,000
GLS Region V	GLS Region V	2012	Update of 2 county hazard mitigation plans	$99,920	$24,980	$99,920
St. Clair County	St. Clair	2012	Hazard mitigation plan update for St. Clair County	$21,375	$7,125	$28,500
Roscommon County	Roscommon	2012	Update of 5 county hazard mitigation plans	$112,500	$37,500	$150,000
Shiawassee County	Shiawassee	2012	Hazard mitigation plan update for Shiawassee County	$102,870	$34,290	$137,160
Leelanau County	Leelanau	2012	Update of 8 county hazard mitigation plans	$124,050	$41,900	$165,950
Estral Beach, Village of	Monroe	*2013	Develop a village hazard mitigation plan	$9,806	$3,269	$13,075
Lansing, City of	Ingham	*2013	Acquisition of 19 residential properties from the floodplain	$249,975	$83,325	$333,300
Tuscola County	Tuscola	*2013	Hazard mitigation plan update for Tuscola County	$16,923	$5,642	$22,565
			TOTALS TO DATE: FY 2002-2013	**$7,360,334**	**$3,407,103**	**$10,742,456**

Two types of grants available under the PDMP: **Planning and Project**. **Planning Grants** provide assistance to states and local communities in developing all-hazard mitigation plans. **Project Grants** help fund eligible mitigation projects that eliminate or reduce damages to public or private property from natural hazards.

*At the time of this writing funds have not yet been obligated for this grant.

Summary of Repetitive Flood Claims Program (RFCP) Projects Funded in Michigan: 2006 and 2012

Applicant	County	Fiscal Year	Project	Federal Investment	Local Investment	Total Investment
Mecosta Township	Mecosta	2006	Acquisition and demolition of one structure	$109,965	$0	$109,965
Estral Beach, Village of	Monroe	2012	Elevation of three homes in the floodplain	$152,000	$0	$152,000
			TOTALS TO DATE: FY 2006 and 2012	**$261,965**	**$0**	**$261,965**

Only one type of grant is available under the RFCP – **project grants**: There is no local share under the RFCP as the program is 100% federally funded.

MITIGATION PROJECT FUNDING MADE AVAILABLE IN MICHIGAN SINCE 1994, BY COUNTY (AS OF MAY 2013)

COUNTY	PROJECT TOTAL	FEDERAL SHARE
Alcona	$ 297,992	$ 180,000
Allegan	$ 413,235	$ 308,607
Alpena	$ 566,540	$ 367,088
Antrim	$ 447,511	$ 286,258
Arenac	$ 215,840	$ 127,875
Baraga	$ 78,702	$ 56,255
Barry	$ 332,795	$ 248,413
Bay	$ 3,083,644	$ 2,467,959
Cass	$ 87,520	$ 60,540
Charlevoix	$ 432,579	$ 301,456
Cheboygan	$ 17,876	$ 13,407
Chippewa	$ 566,652	$ 424,989
Crawford	$ 1,967	$ 1,475
Delta	$ 12,575	$ 9,432
Dickinson	$ 84,701	$ 63,297
Eaton	$ 320,086	$ 225,000
Emmet	$ 142,955	$ 56,436
Genesee	$ 4,956,999	$ 3,719,810
Gogebic	$ 609,918	$ 330,089
Grand Traverse	$ 76,989	$ 57,742
Gratiot	$ 405,181	$ 277,352
Houghton	$ 651,742	$ 478,846
Huron	$ 587,630	$ 376,500
Ingham	$ 1,950,331	$ 1,439,293
Ionia	$ 399,372	$ 298,243
Iosco	$ 154,696	$ 67,511
Iron	$ 209,825	$ 148,742
Isabella	$ 58,744	$ 44,059
Jackson	$ 107,637	$ 76,797
Kalamazoo	$ 84,318	$ 63,239
Kent	$ 8,877,038	$ 6,455,211
Keweenaw	$ 150,652	$ 112,500
Lake	$ 27,940	$ 20,000
Lapeer	$ 5,421	$ 4,066
Leelanau	$ 21,975	$ 13,875
Lenawee	$ 147,448	$ 110,586
Livingston	$ 590,470	$ 442,852
Mackinac	$ 273,754	$ 183,750
Macomb	$ 2,374,738	$ 1,376,530
Marquette	$ 2,130,426	$ 1,313,288
Mason	$ 27,940	$ 20,000
Mecosta	$ 109,965	$ 109,965
Midland	$ 84,056	$ 58,637
Monroe	$ 1,642,496	$ 1,318,570
Muskegon	$ 343,898	$ 257,923
Newaygo	$ 18,638	$ 12,000
Oakland	$ 3,826,141	$ 2,544,356

Ogemaw	$	202,325	$	150,000
Ontonagon	$	64,811	$	48,379
Osceola	$	27,940	$	20,000
Otsego	$	2,106	$	1,575
Ottawa	$	4,303,289	$	3,083,578
Saginaw	$	4,060,032	$	2,664,727
Sanilac	$	615,471	$	375,316
St. Clair	$	356,259	$	267,195
St. Joseph	$	327,175	$	245,381
Tuscola	$	4,010,683	$	2,592,157
Van Buren	$	480,292	$	316,635
Washtenaw	$	536,155	$	402,116
Wayne	$	4,931,743	$	3,633,023
Wexford	$	846,431	$	634,823
Statewide (other)	$	1,246,019	$	827,041
TOTAL in Michigan	$	60,020,279	$	42,192,768

- The totals in this table represent 269 separate project grants. Two-hundred-fifty-six (256) of the projects are complete and the totals included in the table are based actual project costs. For the thirteen (13) grants that were awarded but not yet complete as of May 2013, projected totals were used based on grant application budgets.
- This table includes totals from two multi-county projects that benefitted a total of seven counties. The completed project totals for those two projects were evenly distributed to the counties they benefitted.
- There were a total of twelve projects that yielded benefits that were statewide or regional in nature. Those twelve projects are totaled under the category of "Statewide (other)".
- The project grant totals represented in this table are from grants awarded to the State of Michigan from the Federal Emergency Management Agency (FEMA). The grants were awarded four of FEMA's five separate grant programs that are collectively known as Hazard Mitigation Assistance (HMA). The four grant programs represented in this table are the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance (FMA) program, the Pre-Disaster Mitigation (PDM) program, and the Repetitive Flood Claims (RFC) program. All grants, other than totaled in the "Statewide (other)" category, were passed through from the State of Michigan to local units of government.