Damage Assessment Manual

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Author

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Executive Summary

This Damage Assessment Manual provides information about how to plan, design, and carryout an assessment of damage in the aftermath of natural or man-made disasters and terrorist acts. Many of the forms used by this system are similar in design to state and federal programs for public assistance damage assessment and reimbursement.

Chapter One describes damage assessment by presenting five sets of activities: (1) Situation Assessment; (2) Needs Assessment; (3) Damage Assessment; (4) Health Needs; and (5) Community Impact.

Chapter Two describes the Six-Steps to a Successful Damage Assessment Program. One important Step is the pre-disaster survey of your community’s critical infrastructure into a “Map-Grid” system.

Chapter Three describes “How To Conduct a Damage Assessment”. This is often overlooked by many state and local governments. By following our steps and methods you will be able to conduct the assessments. You will need at least two-teams (Individual Assistance (IA) and a Public Assistance (PA) damage assessment team).

Chapter Four describes the role of the Damage Assessment Coordinator and how to prepare the necessary teams for action.

Chapter Five includes an overview of the federal disaster assistance programs managed by the Federal Emergency Management Agency (FEMA). More details of their programs can be obtained from their web site at www.fema.gov.

Chapter Six describes the recordkeeping process following a presidentially declared disaster and how to receive the maximum reimbursement of dollars possible.

Finally, all of the forms and the disaster assessment system are “Web-Enabled” in an annual subscription package. We also offer training, supplies, software and exercises for damage assessment.

Robert L. Kistner, President & CEO
www.greenalert.net

About the Author

Bob Kistner, President and CEO, Green Alert Technologies Inc., has over 40-years of emergency planning, disaster mitigation and recovery experience serving federal, state, local governments, and private organizations throughout the country. His career in emergency management includes over 30-years with U.S. Army Corps of Engineers, Federal Emergency Management Agency, and state and local governments. He assisted the Town of Estes Park, Colorado in the recovery from the dam failure disaster. He has also served as a disaster recovery manager for Utah, Colorado, and Tucker County, West Virginia. Bob has responded to over 30 disasters in the U.S.

Bob has written over 50 books and articles on emergency and disaster recovery topics. He “wrote the book” on disaster damage assessment, prepared numerous hazard mitigation plans for communities, and emergency response plans for cities and counties. He has served as an adjunct faculty member at the University of Colorado in Colorado Springs and the Federal Emergency Management Agency (FEMA) National Emergency Management Training Center in Emmitsburg, Maryland.

During the past decade, he and his companies have written energy emergency response plans for six states (Delaware, New Hampshire, Arkansas, Kansas, Wyoming, and Colorado) and five city energy emergency response plans (Cheyenne, Wyoming, Greenwood Village, Colorado, Manhattan and Topeka, Kansas).

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The forms used in this manual may be downloaded from our web site at www.greenalert.net following a login and password.
Chapter One
Why Damage Assessment?

1.1 Why Damage Assessment?
The purpose of this manual is to introduce emergency managers and local government officials to disaster damage assessment and to provide information about how to plan, design and carry out effective assessments in the aftermath of natural or man-made disasters and terrorist acts. We will describe the different types of assessments, the different methods for carrying out an assessment, the appropriate timing for each assessment activity, and how to use the data collected in relief, recovery and reconstruction programs.

We understand there are many different techniques and methods that can be used to collect information about disasters. Many state and local governments have developed techniques, manuals, and forms to be used following a disaster. Some of these (like manuals and checklists) are fairly rigid and formal, while others are more informal and rely on common sense. This manual and accompanying software can be used with state forms and systems already developed.

This manual and accompanying forms can be downloaded from our web site at www.damageassessment.biz. DamageAssessment.Biz incorporates forms and methods we have used in responding to over 30 disasters throughout the U.S. and several foreign countries. Our reimbursement forms we use are exact replications of the Federal Emergency Management Agency (FEMA) forms they recommend in the FEMA Public Assistance Manual. Our manual and software are designed to help the local or state government plan and conduct damage assessments to obtain the most critical information in the shortest time possible.

1.2 What is Damage Assessment?
The term “damage assessment” refers to the survey and information collection activities carried out to determine the effects of a disaster on disaster victims, the stricken community and the society in general. After a disaster or terrorist act, assessment is carried out in several stages. An immediate reconnaissance (“Windshield Survey”) is one of the first activities carried out. The purpose is to provide information that can guide emergency services in search and rescue missions, pinpoint the location and nature of secondary threats that may continue to endanger survivors, provide information about the status of facilities needed to treat or support the survivors, and provide information about access to stricken communities.

After the immediate reconnaissance a “Windshield Survey” is completed (sometimes referred to as a “flash report”) the assessment process continues with an “Initial Assessment” designed to compile more detailed information about the extent of losses. It provides state and local governments with information needed to develop and execute relief and reconstruction programs. In the Preliminary Assessment (PDA), damages are quantified and estimates of the impact of the disaster on the entire community and society are projected. Later, more “Detailed Assessments”, such as structural surveys, are carried out to provide specific information about reconstruction needs. When disasters occur that are long-term and continue with damages, the damage assessment enables local governments to plan lifesaving activities.

1.3 Purpose
A successful damage assessment is a key element of successful disaster response. Damage assessment
Chapter 1 - 2

Damage Assessment Manual

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1.4 Objectives

In the aftermath of a disaster, local government officials need a variety of information about the situation. Relief agencies (Red Cross and others) need information about housing losses, people without shelter, food and other essentials for well-being. Many agencies and departments may have different informational requirements such as:

• Determining the immediate needs and priorities of the disaster victims;
• Determining the damages to housing, agriculture, lifelines, power utilities, critical facilities;
• Identifying problems with emergency operations and relief efforts;
• Identifying secondary threats, for example unsafe buildings still occupied, power (lights and gas) off in the winter, areas at risk to rising flood waters, etc;
• The economic impact of the disaster to commerce and industry, unemployment, and what kind and types of insurance coverage may be in-place;
• Monitoring public health for infectious disease, sewer problems;
• Identifying the resources available to respond to the disaster.

1.5 Information

The needs of damage assessment information vary according to the agency or governmental unit. The Red Cross needs housing and victim information for their response and recovery actions. Local governments require information about the most urgent needs of the community for recovery and mitigation of future events. Lenders are concerned about their investment in the damaged area. Insurance companies must determine their role in assisting homeowners and businesses with reimbursement for the injuries and damages covered by insurance.

Local governments want to know about the impact of the disaster on individuals and families. They also require information about lifelines (water, sewer, communications and transportation networks, and electrical systems); critical facilities such as hospitals and government facilities; transportation facilities such as ports and warehouses, airports, fuel supplies; and finally on the economy and means of production. The information guides governments in deciding where to place their assistance first, identifies constraints on operations, and helps to provide data for aid requests.

The American Red Cross damage assessment is primarily concerned with collecting data that will enable them to respond more efficiently to emergency needs of the victims in housing, relief and reconstruction programs. This information normally includes data about the condition of the survivors, their means of coping with the disaster, and the ability of families to recover and reconstruct. The information collected by the Red Cross is described in detail in Chapter Three. When disaster strikes a community the Red Cross related data is needed on a wide range of subjects that will enable the agencies to focus their activities on both family and community needs.

1.6 Activities

For disasters where the Incident Command System (ICS) is activated, good initial information may be found in the Situation Unit of the Plans Section. Damage assessment in response to natural and manmade disasters may be described as five sets of activities (see Figure 1.4).

Figure 1.2 — Source: FEMA Emergency Response to Terrorism Job Aid Edition 1.0, May 2000

Situation assessment: (also known as initial reconnaissance) is the immediate estimate of the impact of a disaster. A situation assessment is normally carried out immediately to determine the extent and nature of the disaster, areas of critical need, search and rescue activities, and the status of critical facilities. There may be roads and bridges destroyed making it almost impossible to gain access to the impacted community. You must identify disaster-related problem areas. These

<table>
<thead>
<tr>
<th>Weapon of Mass Destruction (WMD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Any explosion, incendiary, poison gas, bomb, grenade, or rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one-quarter once, or mine or device similar to the above.</td>
</tr>
<tr>
<td>2. Poison gas.</td>
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<td>3. Any weapon involving a disease organism.</td>
</tr>
<tr>
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1. Any explosion, incendiary, poison gas, bomb, grenade, or rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one-quarter once, or mine or device similar to the above.
2. Poison gas.
3. Any weapon involving a disease organism.
4. Any weapon designed to release radiation at a level dangerous to human life.
barriers impede search and rescue operations, distribution of emergency supplies and may delay response activities. This assessment will include impassible roads and bridges. The incident Command system, used by most jurisdictions, can help overcome these problems.

**Needs assessment:** - Determines the needs of the victims, the local government, and the relief agencies responding to the disaster. These may be classified as immediate needs which usually concern health, life support and safety, and long-term needs which refer to housing and economic needs.

**Damage assessment:** - is a determination of the extent of physical damage to residences, businesses, public buildings, infrastructure, agriculture, and the economic base of the community. Two types of damage assessment are carried out (1) Individual Assistance (IA) (2) and Public Assistance (PA). Individual Assistance damage assessment provides the estimate of damage to residential and business units (normally conducted by the American Red Cross). Public Assistance (PA) damage assessment determines the estimate of damage government and public facilities, lifelines, and major installations of the economy such as refineries, fuel and chemical storage facilities, warehouses, etc. Agricultural specialists determine losses to crops, forests, animals, etc. (normally carried out by state agriculture departments).

**Health Needs Assessment:** - is the early identification of threats to public health precipitated or aggravated by the disaster, and the establishment of a monitoring and medical response capability to identify, isolate and eliminate any actual health problems. In today's environment that includes the threat of additional terrorist attacks and weapons of mass destruction (including anthrax and smallpox) is always present. Trained medical assessment teams at the federal, state, and local government level are urgently needed.

**Community Impact Assessment:** - is the assessment of the impact of the disaster on community social structures. The purpose is to help determine how people and the personal and impersonal social structures and coping mechanisms are working in the aftermath. What is the role of families, the extended family system, local churches, and volunteer agencies? The answers to these questions will affect decisions by relief agencies in determining which structures they consult and use to channel relief. The assessment should include identification of the community's on-going relief measures, their effectiveness, and additional assistance required. The assessment provides information to relief agencies as to the most urgent channels for relief.

**1.7 Methods**

*DamageAssessment.biz* incorporates four methods for carrying out disaster assessments around the country and internationally. These include field surveys,
An accurate disaster assessment depends on thorough planning and preparation and exercises. Potential natural hazards can be identified well in advance; the means of collecting the necessary data and selection of formats for collection and presentation of the information should be established as part of general disaster preparedness activities. By planning disaster assessment in a non-crisis situation, all potential information needs can be identified and adequate resources can be devoted to the assessment teams.

Field Surveys: Detailed surveys and the compiling of statistical information provide the data needed for carrying out specific types of hazard mitigation projects.

- **Health status assessment and epidemiological disease surveillance**: Epidemiological surveillance is the early identification of threats to health precipitated or aggravated by the disaster. This includes a medical response capability to identify, prevent and/or eliminate any actual increased risk of communicable disease.

Aerial Overview: Light aircraft and helicopters may be used to gather initial data for situation assessments.

Aerial Photography: Aerial photography is a valuable tool for a disaster assessment. Because it is an expensive tool, it must be used wisely. It may consist of "out-of-the-window" photography of the damaged areas and facilities. Aerial photography can be useful in the immediate aftermath of a disaster for estimating the magnitude of the disaster, determining emergency needs, identifying stoppages, identifying damages to critical facilities and lifelines, and recording damage caused by the disaster for verification of claims to state and federal relief agencies. It is also useful for locating secondary threats such as landslide zones etc.

In the early morning after Hurricane Andrew struck Dade County, Florida officials believed the hurricane had passed them by. Radio, phone, and other communications with South Dade County were cut off. It was only when aircraft and ground survey viewed the disaster area that information about the extent and damage surfaced.

A satellite-based imaging system is limited due to the small area resolution.

Remote Reporting Systems: Remote reporting is a method used by governments to speed the initial situation assessment. Many dams throughout the country use flow meters and devices which relay information to satellites and into control centers. Many power plants have seismographic equipment located on the generator platforms. These devices can shut the generators down and transmit information about the output of the generators to the power agency. This information may then be routed to the emergency manager's office. Major pipeline companies use overflights, and aerial photography.

**Field Surveys**: On-site inspection by trained damage assessment team members is the most accurate and complete method for conducting a disaster assessment. The following methods may be used:

- **On-site visual inspection by trained inspectors**: Qualified and experienced inspectors interview key personnel in the disaster affected area, review the extent of damage, and prepare in-depth descriptions of the disaster.

**Survey & Data Collection**: The gathering of the information must proceed rapidly and thoroughly. In the immediate post-disaster assessment, surveyors look for patterns and indicators of potential problems. We use standard survey techniques, questionnaires, checklists and procedures are needed to ensure that all areas are examined and the information is reported using standard terminology and classifications.

**Interpretation**: Analysis of the information is the most critical part of the disaster damage assessment. The damage assessment coordinator and the team must be trained to detect and recognize indicators of problems, to interpret the information, and to link the information to action programs.

**Figure 1.5**

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sensors to detect pressure losses and resulting leakage. Sensors can detect failures in water supply systems, sanitary sewer systems, and many electrical and telephone systems.

Remote reporting speeds the assessment process and allows the disaster manager to concentrate on assessment in the prime "Map-Grid" sectors of the community. However, to be successful, the remote reporting system must be included as part of a comprehensive disaster preparedness effort. Both the persons making the report and the telemetering devices must be selected with great care, and backup reporting systems should be established.

1.8 Use of Baseline Data

The local government emergency response planner should have a clear conception of the purposes of assessment and the kind of actions they will need to take in order to arrive at an assessment. Factual knowledge of the communities pre-disaster conditions must be gathered in advance. The risk assessment, facilities in danger, and the resulting shelter needs can be calculated and should be tabulated such as we describe in Chapter Two (2.7) of this manual. The following information will be needed:

- Identification and mapping of hazardous zones.
- A description of adopted building codes and ordinances.
- Mapping of elements at risk.
- Estimation of housing demand.

In the event of the need to reconstruct housing, the scale of demand will be a function of:

- the rate at which the region is being urbanized, and under what conditions;
- the economic profile of the area (incomes, level of employment, skills, the building industry, etc.); and
- the demographic profile of the area, especially the rate of population growth and the distribution of age groups.

1.9 Building Industry Description

This information will provide a basis for estimating emergency shelter needs rapidly and accurately following a disaster, and it will also serve as the foundation for long-term risk reduction. Baseline data is especially important for epidemiological surveillance, economic impact assessments, and agricultural and food needs assessments.

1.10 Lessons Learned

A review of disaster assessment indicates that disaster assessment requires forethought and planning to determine critical information needs. Agencies should review their information needs and prepare assessment plans as part of their general disaster preparedness activities.

1.11 Disaster Mitigation

Disaster mitigation consists of actions and measures that prevent or reduce disaster losses. These are sustained actions taken over the long term with the
ultimate purpose of saving lives and protecting homes.

Technically, disaster mitigation is separate from disaster preparedness, which consists of activities that help get people and communities ready for a disaster that will almost certainly occur—so they can better cope. Examples include: keeping a disaster supplies kit on hand; knowing how to “drop, cover, and hold on” when an earthquake strikes; and knowing where to go and what to do when a storm threatens.

Disaster mitigation should have to be done only once and has long-term benefits—whereas preparedness activities must be repeated every time a disaster threatens. Both preparedness and mitigation are critical and work hand in hand to make people and property safer.

Finally, it’s also important to acknowledge that while the term “disaster mitigation” is becoming more familiar to the general public, it is still not commonly known or understood. Therefore, when communicating with the general public about mitigation, we generally use other terms such as disaster safety, preparedness, or prevention.

However, when discussing hazard loss reduction with key partners, it is important that we use mitigation in order to convey to them that we understand that it is separate and distinct from disaster preparedness (see information below about FEMA’s Hazard Mitigation Grant Programs).

1.12 FEMA Mitigation Grant Programs
(source www.fema.gov)

Mitigation is the cornerstone of emergency management. It’s the ongoing effort to lessen the impact disasters have on people and property. Mitigation involves keeping homes away from floodplains, engineering bridges to withstand earthquakes, creating and enforcing effective building codes to protect property from hurricanes -- and more.

FEMA currently has three mitigation grant programs: (1) the Hazards Mitigation Grant Program (HGMP), (2) the Pre-Disaster Mitigation program (PDM), and (3) the Flood Mitigation Assistance (FMA) program.

1.12.1 Hazards Mitigation Grant Program
Authorized under Section 404 of the Stafford Act, the Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster.

Hazard Mitigation Grant Program funding is only available in states following a Presidential disaster declaration. Eligible applicants are:

- State and local governments
- Indian tribes or other tribal organizations
- Certain private non-profit organization

Individual homeowners and businesses may not apply directly to the program; however a community may apply on their behalf. HMGP funds may be used to fund projects that will reduce or eliminate the losses from future disasters. Projects must provide a long-term solution to a problem, for example, elevation of a home to reduce the risk of flood damages as opposed to buying sandbags and pumps to fight the flood. In addition, a project’s potential savings must be more than the cost of implementing the project. Funds may be used to protect either public or private property or to purchase property that has been subjected to, or is in danger of, repetitive damage. Additional HMGP information is located within the Multihazard pages.

1.12.2 Flood Mitigation Assistance Program

![Map Grid 5-1A](image_url)

Figure 1.8 This “Map Grid” identified in Chapter 2 is a result of the type of information available on the “NET”.
FMA provides funding to assist States and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP). There are three types of grants available under FMA: Planning, Project, and Technical Assistance Grants.

FMA Planning Grants are available to States and communities to prepare Flood Mitigation Plans. NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project Grants. FMA Project Grants are available to States and NFIP participating communities to implement measures to reduce flood losses. Ten percent of the Project Grant is made available to states as a Technical Assistance Grant. These funds may be used by the state to help administer the program. Communities receiving FMA Planning and Project Grants must be participating in the NFIP. A few examples of eligible FMA projects include: the elevation, acquisition, and relocation of NFIP-insured structures. Additional information can be read on the Mitigation Planning pages. Funding for the program is provided through the National Flood Insurance Fund, and FMA is funded at $20 million nationally.

States are encouraged to prioritize FMA project grant applications that include repetitive loss properties. The FY 2001 FMA emphasis encourages States and communities to address target repetitive loss properties identified in the Agency's Repetitive Loss Strategy. These include structures with four or more losses, and structures with two or more losses where cumulative payments have exceeded the property value. State and communities are also encouraged to develop Plans that address the mitigation of these target repetitive loss properties.

1.12.3 Pre-Disaster Mitigation Program
The Pre-Disaster Mitigation (PDM) program provides technical and financial assistance to States and local governments for cost-effective pre-disaster hazard mitigation activities that complement a comprehensive mitigation program, and reduce injuries, loss of life, and damage and destruction of property. FEMA provides PDM grants to states that, in turn, provide sub-grants to local governments for mitigation activities such as planning and the implementation of projects identified through the evaluation of natural hazards.

**Common Problems!**
- Failure to structure the survey to obtain the most critical data;
- Poor assessment timing (i.e., too early, too late or at an inappropriate time).
- Assessments need to be linked with forecasting, otherwise it may be too late to detect the immediate needs;
- Gathering too much information;
- Improper (or lack of) interpretation and failure to disseminate interpreted results;
- Failure to evaluate the local government or states response and impact of the disaster on social structure of the community.

**Common Misconceptions!**
- No response and recovery actions are possible until a full assessment has been completed;
- It is necessary to obtain an immediate, accurate accounting of the injuries and fatalities;
- It is necessary to count every physical injury; and
- It is necessary to count every destroyed or damaged house.

**Figure 1.9 Statue of Liberty**

**Figure 1.10 Damage Assessment Misconceptions**

**Figure 1.11 Damage Assessment Problems**

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Chapter Two - Six-Steps to a Successful Damage Assessment Program

The six-steps to establishing a successful damage assessment program are outlined in this Chapter Two. The six-steps are:

**Step-1**: Organize the damage assessment team.

**Step-2**: Setup the survey area for your city, county, district, state, or company using a “grid system”.

**Step-3**: Inventory and record property assets within each “Grid” area. This includes assessed valuation of the structure and contents of the homes, businesses, and jurisdictional property. Included are people working or residing in buildings and the emergency generators and associated fuel supplies.

**Step-4**: Setup the accounting system, including special accounting codes, before the disaster to ensure that you receive all reimbursements allowed under state and federal guidelines.

**Step-5**: Purchase a subscription for the on-line Web-Based damage assessment system from [www.damageassessment.biz](http://www.damageassessment.biz). Download the forms used by your state in the reimbursement process or use the forms provided in this manual (we have made every effort to use the approved Federal Emergency Management Agency (FEMA) forms where available). The forms used by participating states are located on our web site at: [www.damageassessment.biz/forms](http://www.damageassessment.biz/forms).

**Step-6**: After all of the above steps are accomplished, conduct a team training exercise. **First**, conduct a “Table-Top” exercise to ensure the team is aware of their responsibilities and required actions during a disaster or emergency. **Second**, conduct a detailed assessment with the software using one of our scenarios outlined in Appendix C of this manual. **Third**, conduct a “Full-Scale Field-Exercise” exercise by assembling the entire damage assessment team. This will require an activation, the initial briefing, database, accounting, field assessment by the team, and the filing of damage estimation reports through the system.

**Step 1. Organize the Damage Assessment Team**

The Damage Assessment Coordinator (DAC)
The appointment of the damage assessment coordinator (DAC) is crucial to the success of damage assessment and must be done well in-advance of the disaster or emergency. The qualifications of the damage assessment coordinator will vary according to the size of the local government jurisdiction. We recommend that the person appointed is a leader within the building inspection department, public works, road and bridge, or similar department. The damage assessment coordinator is stationed in the emergency operations center for management of the damage assessment. The damage assessment coordinator’s role and responsibilities are covered in Chapter Four of this manual.

**Local Government Responsibilities**
Damage assessment is the responsibility of the entity having jurisdiction over the disaster area. Damage assessment teams for public and commercial property will consist primarily of trained local government employees, but also may include private sector personnel, such as engineers, tradesmen, and insurance adjusters. In most jurisdictions, the
collection of data for damage to public property will be coordinated by the public works or risk management department. The information is forwarded to the local emergency manager. The damage assessment coordinator coordinates all of the assignments for inspection.

**Damage Assessment Teams**

To conduct an accurate damage survey, local governments must have capable damage assessment teams. These teams must be identified and trained in advance of the disaster so they will be ready when needed. Damage assessment teams will be organized by their expertise, with each department agency expected to provide team personnel when requested by the damage assessment coordinator (see Chapter Four for more details about appointing, organizing, and training the team members).

Each team must include a local government representative from the political subdivision affected and be knowledgeable on all aspects of the damage sites the team will inspect. This includes insurance information related to buildings and structures, identify damaged public facilities, structures, and emergency work performed by the jurisdiction. The jurisdiction must maintain records pertaining to each damage site, listing labor, materials, and equipment used at that site for both emergency and permanent work (see Chapter Six for more details about recordkeeping).

The composition of the damage assessment (see Chapter Four of this manual). Teams will vary depending on the severity, type of damage, and the availability of personnel. Each team should have a team leader who makes sure the team has the proper forms, maps with identified areas marked, and transportation.

During joint damage assessment activities involving the state/FEMA and local government, you should have a team member assist state and federal damage assessment team members at all times.

**Public Assistance—infrastructure (PA) Team**

"Public damages" can include any damage incurred by a structure or facility which is owned by a public or private non-profit entity. This could include roads, bridges, buildings, utilities, etc. To be eligible, the damages must fall in one of the following seven basic categories:

1. **Category A - Debris Clearance** - This category includes all storm induced debris on non-federal public roads, including the right-of-way, non-federal public waterways, other public property, and private property when undertaken by local government forces. It can also cover the cost of demolition of public structures if those structures were made unsafe by the disaster.
2. **Category B - Emergency Protective Measures** - This category addresses the need to provide appropriate emergency measures designed to protect life, safety, property, and health (i.e., barricades, sand bags and safety personnel).
3. **Category C - Road System** - This category addresses damages to non-federal roads, bridges, streets, culverts, and traffic control devices.
4. **Category D - Water Control Facilities** - Eligible damages under this category include costs to repair or replace dikes, dams, drainage channels, irrigation works, and levees.
5. **Category E - Building and Equipment** - Eligible damages under this category include costs to repair public buildings and equipment, supplies/inventories that were damaged and transportation systems such as public transit systems.
6. **Category F - Public Utility Systems** - Under this category, assistance is available for damaged water systems, landfills, sanitary sewerage systems, storm drainage systems, and light/power facilities.
7. **Category G – Other** - The "other" category includes
Individual Assistance (IA) Team
The individual assistance teams (IA) will inspect damage to homes, businesses, farms, and personal property. Assessment teams will include appropriate federal, state, and local government or private nonprofit agency representatives for each impacted category of assessment. The American Red Cross is usually a member of this team focusing on the immediate human needs of the citizens. Insurance adjusters also play an important role by focusing on the property value damage. Individual assistance team members may include:

- American Red Cross (ARC)
- County assessors
- Realtors
- Farm Service Agency personnel to inspect agriculture damage
- Local economic development staff
- County health office staff

The purpose of individual damage assessment is to determine the extent to which individuals and private businesses have been impacted by the disaster. The two basic categories of eligible individual damage include:

1. Damage to Homes - Homeowners with residential property damage may qualify for various forms of disaster assistance. When damage assessors go into the field, they will estimate the degree of damage to the home, evaluate the victim's insurance coverage, estimate the victim's income, and determine the habitability and type of the victim's home.

2. Damage to Businesses - Privately-owned businesses that were damaged or destroyed by the disaster can qualify for individual assistance programs. The same procedures used to assess damages to homes are used to quantify damages, as well as determine the impact those damages will have on the community. Loss of a business may result in lost jobs, income, etc., to the individual owner and employees.

Team Member Responsibilities
Damage assessment team members must participate in the damage assessment briefing. Team members conduct assessment activities according to assignment in each member's area of expertise or in assigned geographic locations. Members complete data capturing thoroughly and accurately for preliminary, interim or final assessment reports and records data on the appropriate form.

Damage assessment teams will receive their work assignments from the damage assessment coordinator and team leaders. Volunteer agency assessment teams will retain control over their personnel even though they will be given mission assignments by the damage assessment coordinator.

Team members must identify damage sites on a large map with a location and street address. Roads and bridges should be identified by their state bridge designation numbers.

Supplies will be provided to each team by the damage assessment coordinator to effectively perform.
Chapter 2 - 4

Step 2: Set up the Survey Area Grid System:
Using maps of the disaster area, lines are drawn down the center of the streets to define the boundary areas of the team assignments (see Figure 2.10 for details). The map (Figure 2.11 next page indicates how the “Grid Map” system should be set up for your city. The system should include segments of at least two to six city blocks. You may want to use the census tracks or special political boundaries within your city. These “Grids” should be recorded on a large map in the EOC. If the community is rural, you may wish to use larger areas for the “Grids”.

The Geographic Information System (GIS), if used by the local government, is an excellent tool to use for this effort. Following a flood in Ft. Collins, Colorado, the city used a GIS system to record damages to structures, buildings, and homes. They also imported the assessed valuation of the property and assets into the GIS system. The results were outstanding and produced damage information quickly. Many cities may not have this new system yet. However, consulting engineers to the city may be able to obtain the same results.

Our company uses either MapInfo or ESRI to prepare damage estimation programs for the cities we work with. For more information about our systems visit our web site at www.damageassessment.biz.

Step 3: Inventory and Record Property Assets
Figure 2.12 on Page 2-10 provides information on performing a pre-disaster inventory of your cities assets. These assets include public infrastructure, businesses, homes, and private infrastructure such as power lines, gas mains etc.

The county assessor’s office should be the best source in determining the assets of the community. After you have the database in place and a disaster occurs, it will not be difficult to determine the damage and the impact to your community.

Step 4: Setup Accounting System Codes
Chapter Six of this manual describes in detail the process necessary to receive your reimbursement from the state and federal government providing your damages exceed the threshold for assistance. In any event, you must separate all of the damages by project and site. Each damage site within your community becomes a separate accounting code. Some caution must be taken here (as displayed in Figure 2.12) since there may be several applicants who suffered damages and are involved at a damage site. In the case of a bridge within the city, the state highway department may be the applicant for the bridge, with other applicants such as a water and sewer district, and a private telephone company with communication cables.

It is important to keep track of every item associated with each damage site. This includes emergency work (debris clearance, sandbags, cleanup etc.). Sometimes it is difficult to track all of the labor, materials, and equipment associated with each damage site. Failure to track every item will result in a loss of dollars for your jurisdiction.

Chapter Six describes the more detailed aspects of the recordkeeping process and how to get your money quickly from state and federal sources.

Remember to keep all of your work-orders, labor time sheets, equipment, and materials into the project folder for each damage site (this is discussed in more detail in Chapter Six). This includes all of your supplies and materials either purchased, from stock, or the public works yard.

Step 5: Install the Damage Assessment Software
The damage assessment software is web-enabled. It does not require any installation. All you have to do is log into our web site at www.damageassessment.biz register, receive your password, and you are now able to use our software. It doesn’t matter what operating system you have Win-95, Win-98, Win-ME, Win-2000, Win-XP etc. are all “web-enabled” and ready-to-use. If by chance of fate you lost your EOC, you can log onto our site remotely, estimate your damages, and submit the information to the state office. With The easy-to-use, powerful graphical user interface, our custom-designed database supports mechanized com-
Note:
The map to the left and the map below were both created by using the map tool at: http://mappoint.msn.com/

If you find yourself in a situation where you don’t have access to the city maps, this may be an excellent source for the maps required for the “Map Grid” system.

Damage assessment team members could download the maps from a remote location and proceed to the damage assessment headquarters location. This is particularly helpful when working in remote locations far from the Emergency Operations Center (EOC).

Figure 2.9 Map of Topeka, Kansas

Figure 2.10 “Map Grid” system at Topeka, Kansas (demo only)

"Grid Map" System Survey

County: Logan  City: Salt Creek  Sub-division: Callaway  Disaster Description: Tornado
Survey Area Boundaries:
North Street: 3rd Street  South Street: 10th Street
East Street: Lincoln Street  West Street: Main Street

Surveyed By: J.J. Smith  Title: Building Inspector  Phone: 333-333-3333  Date: 03-28-02

Figure 2.11 “Grip Map” Survey System
pletion of all damage assessment forms. Additionally, multiple end-users are empowered with full access to master database content for input and editing operations. Our software prints necessary FEMA, state, and local government forms for the field estimation of your disaster damages. It tracks all of your force account labor, equipment, materials, and contract costs by site location. It enables you to print the necessary forms to obtain your reimbursement quickly from state emergency management agencies. Remember, the software is web-enabled and runs on any platform.

This software and manual is being used by several state emergency management agencies. Riley County, Kansas is using our manual and software to track damages. The City and County of Denver Emergency Operations Center is also using this software (our software BETA site).

Step-6: Conduct Damage Assessment
Team Training and Exercises
The damage assessment team will be trained as part of the city, county, or state readiness activities. Training materials and guidance are provided by the local or state emergency management office. Training must be conducted by qualified contractors, state regional, or county emergency management trainers. Training must include the responsibilities of the team, the criteria for damage, procedures, direction on completing forms and reports, and what to do with the information. Training will be provided in teams that offer opportunities for face-to-face meeting and learning, sharing expertise between team members, and reviewing the manual.

Our field workshops include FEMA Integrated Emergency Management Concepts (IEMC) including pre-disaster mitigation for risk managers. How to declare a disaster at the state and local level. The types of damage assessment are: windshield, preliminary, and detailed. One of our exercises instructs you how to organize your city or state departments into teams for quick damage assessment.

We also include an exercise in developing the "Map-Grid" system of survey in your community and the role of the "Damage Assessment Coordinator". In assigning disaster damage assessment areas for survey. What FEMA and or the state will not pay for. A "Hands-On" classroom disaster exercise in how to fill out the various forms to maximize your reimbursement from State/FEMA sources. A field exercise (with your team) in disaster damage estimation using our software and the manual.
The National Strategy for Homeland Security purpose is to mobilize and organize our Nation to secure the U.S. homeland from terrorist attacks. Item two of the eight major initiatives identifies the need to build and maintain a complete and accurate assessment of America’s critical infrastructure and key assets. **Step-3** of this Chapter is an excellent starting point for this Presidential Executive Summary.

Source: The National Strategy for Homeland Security

---

**Pre-Disaster Inventory of Property and Assets within the Community (Sample DEMO only)**

<table>
<thead>
<tr>
<th>Map Grid</th>
<th>Name of Building</th>
<th>Land Value</th>
<th>Building Value</th>
<th>Contents Value</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-1A</td>
<td>1st Guaranty Bank</td>
<td>$ 1,200,000</td>
<td>$ 5,300,565</td>
<td>$ 2,375,900</td>
<td>$ 8,876,465</td>
</tr>
<tr>
<td>5-1A</td>
<td>Methodist Church</td>
<td>$ 800,000</td>
<td>$ 4,756,000</td>
<td>$ 1,368,000</td>
<td>$ 6,924,000</td>
</tr>
<tr>
<td>5-1A</td>
<td>ZENA Electric COOP</td>
<td>$ 900,500</td>
<td>$ 6,578,000</td>
<td>$ 1,120,000</td>
<td>$ 8,598,500</td>
</tr>
</tbody>
</table>

**Figure 2.14 Inventory of Property (pre-Disaster) Total Grid Value**

$ 24,398,965
Chapter Three - How to Conduct Damage Assessment

The disaster has occurred, and you are now ready to go into the disaster area to begin the disaster assessment process.

However, before you start . . . Let’s review Chapter Two and the Six-Steps to a Successful Damage Assessment Program.

**Step-1**: Activate your damage assessment team that you organized in Chapter Two. If damage has occurred to only homes and businesses, activate the Individual Assistance Team (IA). Or if public infrastructure is involved, activate the Public Assistance Team (PA). Remember, you set up two teams with different expertise.

**Step-2**: You should have the boundaries of the disaster outlined on the map(s) in your EOC. If you pre-planned this step, you already have the “Grid” system established and know the property values for the area.

**Step-3**: The inventory and property assets within each “Grid” area you previously recorded will now be used. Your county assessor’s office will be very helpful in this process. This includes assessed valuation of the structure and contents of the homes, businesses, and jurisdictional property. Check with your engineering department about the GIS information available in the area.

**Step-4**: Notify the finance department to activate the special departmental accounting codes to ensure that you receive all reimbursements allowed under state and federal guidelines.

**Step-5**: Check the Installation of the damage assessment software using our system either by subscription on-line Web Based or by purchase of the software system directly from our company, [www.damageassessment.biz](http://www.damageassessment.biz). Download the forms used by your state in the reimbursement process or use the forms provided in this manual (we have made every effort to use the approved Federal Emergency Management Agency (FEMA) forms where available). The forms

![Figure 3.1 Activation of the Damage Assessment Teams](image-url)
used by participating states are located on our web site at:
www.damageassessment.biz/forms.htm

**Step 6:** Now is your chance to “Test” all that you have learned in the exercise process. By now you should have conducted a team training “Table-Top” exercise to ensure the team is aware of their responsibilities and required actions during a disaster or emergency. Also, you should have conducted an IA and PA damage assessment exercise with the team and software.

**Remember . . . . there are two types of damage assessment for your community; Individual Assistance (IA), and Public Assistance (PA).**

### 3.1 Individual Assistance Windshield Survey

Immediately after the occurrence of the disaster, it is very important to get a quick idea of the extent and magnitude of the damage to homes and businesses in the community. A general picture will begin to form as emergency response units move throughout the area reacting to calls for assistance. In remote areas the first indication of a problem may surface with a 911 call into the call center about a bridge problem or other.

One of the most important elements of a Local government response to an emergency or disaster is the Windshield Survey Damage Assessment. This process is essential in determining what happened, what the effects are, which areas were hardest hit, what situations must be given priority and what types of assistance are needed (e.g., local, state, or federal). Emergency response can be more effective, equipment and personnel can be better used, and help can be provided quicker if a thorough Windshield Damage Assessment is performed.

The first true damage assessment occurs with a windshield survey. This involves driving, walking or flying over the most severely affected area(s) in an attempt to determine the overall impact upon life and property. Information gathered on the scene by actual observations results in the most effective and reliable assessments. Sources for damage and impact estimates may be numerous — but each may have a different perspective.
The most reliable damage information comes from team members from the affected local government. Numbers and dollar figures alone do not always describe the impact of the situation. Numbers and dollars are necessary data, but without a narrative description of the actual impact, they may be of limited value to the decision maker. The windshield survey provides local officials with sufficient information to determine whether local resources can cope with the problem or if additional assistance is necessary. American Red Cross teams may assist in the windshield survey.

The windshield survey includes private home and businesses. Remember, you do not have to survey every destroyed and business. You need to get an average or “Ball Park” number.

### 3.2 How Many Teams Are Needed?
The windshield survey team must be able to provide damage information and the impacts of the disaster to the Damage Assessment Coordinator (DAC), emergency manager, and elected officials within the first 24 hours. The importance of this cannot be understated. A team must be composed of two to three members and should include the Red Cross, a local government representative, and an assessor. Remember, the windshield survey is a quick look at the disaster accomplished by flying, driving or walking through the area.

### 3.3 Determining the Disaster Area
First, the boundaries of the disaster must be determined. One of the best methods is a quick fly-over of the disaster area. This activity determines the outer limits of the disaster area. It also includes photographing and videotaping areas and locating the disaster boundaries on a map.

Second, the number of facilities, structures, homes and businesses in the disaster area must be determined. This usually is accomplished on the ground with assessors and others knowledgeable of the community. This will assist in determining how many teams will be needed.

### 3.4 The Map-Grid System
Using maps of the disaster area, lines are drawn down the center of the streets to define the boundary areas of the team assignments (see Figures 3.4 and 3.5 for details). Careful allotment of the survey area and teams will ensure that teams finish their assignment on time. Teams must report back to the DAC at the designated time. If the teams determine that they cannot finish their assigned area, they must notify the DAC immediately.

### 3.5 Conducting an Individual Assistance (IA) Windshield Survey
**Step-1:** Assign the Individual Assistance (IA) team members to a certain “Grid” area. By now you should

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**Figure 3.4 Boundaries of the Disaster Area**

**Figure 3.5 Map-Grid System**
have determined the property values in the grid for both homes and businesses. The county assessor will be very helpful in this determination (see Figure 3.7).

**Step-2:** Team members should use the Windshield Survey Form DA-BIZ-IA-1 (see Figure 3.6) and supplied in Appendix A. You will find the instructions for completion of DA-BIZ-IA-1 in Figure 3.9. Use the Windshield Survey DA-BIZ-IA-1 form located on our web site or your manual to record the destroyed, major, and minor damaged homes, multi-family residences and mobile homes (see completed DA-BIZ-IA-1 Form Figure 3.6). The instructions for estimating the habitability of the damaged homes is located in Figure 3.8 on page 3-5.

**Step-3:** Using the “TICK” method, team members walk or drive down the streets within their area and note the damaged structures on DA-BIZ-IA-1. The Red Cross uses a slightly different form. Denver’s method of a windshield survey follows the Red Cross guidelines. When all of the information has been recorded, the local assessor should be consulted for entering the average property value into DA-BIZ-IA-2 1st column on page 3-7. The value of residential and business structures

---

**Small Business Administration (SBA) Declarations**

- At least 25 homes and/or businesses in a county have uninsured losses of 40 percent or more of their estimated fair replacement value. (Secondary homes, condominium units, cabins, camps, lake homes, etc., used for recreational purposes are not included in the count.) or
- At least three businesses have uninsured loss of 40 percent or more of their estimated fair replacement value and, as a result of the damages, 25 percent of the work force in the community would be unemployed for at least 90 days.

A Presidential Disaster Declaration makes SBA loans available in the declared counties. When the SBA administrator declares a location a disaster area, counties adjoining declared counties are also eligible for the same help.

---

Figure 3.7 SBA Declarations
In this system the damage assessor divides damaged residences into damage categories; each category representing a range of percent of damage based on the value of the structure (preceding section). Percent damage categories to be used are:

- **Habitable**: The residence can be occupied after repairs are accomplished. These repairs should be those that can be accomplished within a comparatively short time; one to two weeks.
- **Minor Damage**: The structure may still be used for its intended purpose or may be restored to service with minimal repairs. The damage constitutes less than 10 percent of the value of the structure and averages about 5 percent.
- **Habitable With Minimum Repair**: The residence cannot be occupied within a comparatively short time, if ever, because the necessary repairs are too time consuming or not practical.
- **Major Damage**: The structure cannot be used or may be used under limited conditions or reduced levels of service or may be restored to use with extensive repairs. The damage is over 10 percent but less than 80 percent of the structure's value and averages at 30 percent.
- **Not Habitable or Destroyed**: The residence cannot be occupied within a comparatively short time, if ever, because the necessary repairs are too time consuming or not practical.
- **Destroyed**: The structure no longer exists or is damaged to the extent that it is no longer usable and that restoration to use is not technically or economically feasible. The structure is damaged to over 80% of its value and usually will not be repaired. Assume 80 percent damage for these situations.

This system may be used in addition to the percent of value system. This system divides the residences into categories not based on dollar damages but upon the habitability of the structure; can it be lived in? Common habitability categories are:

<table>
<thead>
<tr>
<th>Structure Habitability</th>
<th>Damage by Percent of Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Habitable</strong></td>
<td>The residence can be occupied after repairs are accomplished. These repairs should be those that can be accomplished within a comparatively short time; one to two weeks.</td>
</tr>
<tr>
<td><strong>Minor Damage</strong></td>
<td>The structure may still be used for its intended purpose or may be restored to service with minimal repairs. The damage constitutes less than 10 percent of the value of the structure and averages about 5 percent.</td>
</tr>
<tr>
<td><strong>Habitable With Minimum Repair</strong></td>
<td>The residence cannot be occupied within a comparatively short time, if ever, because the necessary repairs are too time consuming or not practical.</td>
</tr>
<tr>
<td><strong>Major Damage</strong></td>
<td>The structure cannot be used or may be used under limited conditions or reduced levels of service or may be restored to use with extensive repairs. The damage is over 10 percent but less than 80 percent of the structure's value and averages at 30 percent.</td>
</tr>
<tr>
<td><strong>Not Habitable or Destroyed</strong></td>
<td>The residence cannot be occupied within a comparatively short time, if ever, because the necessary repairs are too time consuming or not practical.</td>
</tr>
<tr>
<td><strong>Destroyed</strong></td>
<td>The structure no longer exists or is damaged to the extent that it is no longer usable and that restoration to use is not technically or economically feasible. The structure is damaged to over 80% of its value and usually will not be repaired. Assume 80 percent damage for these situations.</td>
</tr>
</tbody>
</table>

Figure 3.11 — Damage Assessment Information Flow

Figure 3.8 — Structure Habitability and Percent of Value Charts
## Damage Levels and Conditions for IA Windshield Survey

<table>
<thead>
<tr>
<th>Damage Level</th>
<th>Conditions Present in Residential &amp; Business Assessment</th>
</tr>
</thead>
</table>
| **Destroyed 80%** | • Water above the first-floor doorknob  
• Two or more basement walls collapsed  
• Structure leveled above foundation  
• Second floor is gone  
• Two exterior walls collapsed  
• Moved off foundation |
| **Major 30%** | • Water on first floor 6 inches to doorknob  
• Water on main floor more than 24 hours  
• Foundation damaged (bowed or collapsed wall)  
• One exterior wall collapsed, exterior frame damage (bowed walls-non cosmetic), roof off or collapsed, 6 inches or less of water in a mobile home  
• Exits blocked in addition to other damage  
• One room destroyed (pertains to apartment renters)  
• Accessory/service/outbuildings damaged (business)  
• Production equipment/office equipment (business)  
• Utilities damaged to include well, septic system, electrical service, and gas |
| **Minor 5%** | • Carpets soaked on first floor  
• Damage to the home's mechanicals such as furnace, water heater, baseboard heat, and air conditioner in need of repair or replacement  
• Sewer backup or flood water in unfinished basement  
• Insulation damage in crawl space or mobile home belly board  
• Interior floor, walls; minor structural damage to exterior walls  
• Trees fallen on structure, minor damage to exterior walls and interior floor  
• Shingles/roofing removed or damaged exposing the sheathing  
• Business inventory destroyed (business), fire escape not usable (pertains to businesses and multi-family units), fleet/vehicle damage (business) |
| **Affected but Habitable** | • Less than 6 inches of water in unfinished basement  
• Cosmetic damages to shutters, gutters, shingles, and siding  
• Porch damage/deck damage  
• Downed trees in yard that do not impede access to home  
• Fireplace/wood burner chimney damage  
• Broken windows, parking lot damage (business), business signs damaged (business), damage to landscaping (business) |
| **Inaccessible** | • Damage to public or private roads/culverts that impede normal access to primary residence  
• House surrounded by water and only accessible by boat  
• Only access is by driving through farm field |

*Insurance*: In estimating insurance coverage, renters are less likely to have insurance. Low income residents are less likely to have insurance. Homeowners who are still paying off their mortgage normally have the appropriate type of insurance. Residents who are flooded and reside in an area that does not participate in the NFIP or in an area that has been sanctioned for NFIP code enforcement violations will not have flood insurance. Residents who are flooded but whose property is not located in the Special Flood Hazard Area (SFHA) will probably not have flood insurance.

Figure 3.9 Instructions for IA Windshield Survey
varies considerably because of a number of factors, including size, age, condition, and location. Assessors, appraisers, local real estate agents, and insurance adjusters are probably the most knowledgeable in determining values in the damage grid areas. The damaged structure percent of value is used to determine estimated damages.

**Step-4:** The average property value is entered into the Form DA-BIZ-IA-2 column 1 (see Figure 3.10 above). This form is used to tabulate the damage estimates by “Grid” in your community. Form DA-BIZ-IA-3 totals all of the Individual Assistance (IA) damages in the community into this form.

The term “minor damage” estimates that the structure may still be used for its intended purpose or may be restored to service with minimal repairs. Minor damage
Figure 3.12 Individual Assistance (IA) Survey

Figure 3.13 Public Assistance (IA) Survey

Public Assistance Damage Information to the Situation Report

Summary Public Assistance Damage Assessment DA-BIZ-P4-2

<table>
<thead>
<tr>
<th>Applican</th>
<th>Category</th>
<th>Damagel Area</th>
<th>% Complete</th>
<th>Hazard Mitigation</th>
<th>Result</th>
<th>Estimated Repair Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rock Creek</td>
<td>City Hall</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td>$178,000</td>
<td></td>
</tr>
<tr>
<td>Rock Creek</td>
<td>Public Use</td>
<td>5</td>
<td>YES</td>
<td>NO</td>
<td>$45,000</td>
<td></td>
</tr>
<tr>
<td>Rock Creek</td>
<td>Private Use</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td>$178,000</td>
<td></td>
</tr>
<tr>
<td>St. Francis Parish</td>
<td>Private Use</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td>$178,000</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL PUBLIC ASSISTANCE DAMAGE: $228,000
constitutes 10 percent of the structure’s value (5 percent is used as the multiplier factor). The term “destroyed” means that the structure no longer exists or is damaged to the extent that it is no longer usable and that restoration is not technically or economically feasible. The structure is damaged to over 80 percent of its value and usually will not be repaired (80 percent is used as the multiplier factor, noting that the building is worth 20 percent of the total assessment).

Following the survey, it may be determined that there are not sufficient damages to warrant a governor’s disaster declaration. However, a Small Business Administration (SBA) declaration may be possible. Figure 3.7 describes the basic qualifications for a SBA declaration. All declaration requests come from the governor. The governor may request a Presidential Disaster Declaration or a SBA Administrative Declaration, depending upon the severity of the disaster. A Presidential Disaster Declaration provides many federal and state programs, including SBA direct loans. An SBA declaration includes only SBA loans.

When SBA receives the governor’s letter asking for SBA assistance, it will survey the damaged area with state and local officials. The SBA team then submits the survey results to the SBA administrator for a decision.

3.6 Public Assistance Damage Assessment

Each team will complete the damage assessment for their assigned areas using the PDA/FEMA project worksheets. We have included a sample form on the next page that can be used. We have also included the FEMA forms and any of our participating city and state forms on our WEB site at www.damageassessment.biz.

When conducting the damage assessment all major damaged sites and a representative sampling of minor sites should be surveyed. Team members will maintain telephone contact with a team leader to provide regular reports on the damage estimates. The team leader will maintain contact with the Damage Assessment Coordinator (DAC) for periodic briefings on damage estimates as they are reported. When the team completes its assigned survey area, it will return the damage assessments to the DAC. Several building officials and county assessors are using computers in the field to record information in the field and then downloading the information to the DAC. This method works very well in major metropolitan areas. Our company (www.DamageAssessment.Biz) forms are on-line now. Information, pictures, and sketches can be entered into a notebook computer in field operations and then downloaded into the emergency operations center using a modem or wireless application. This speeds up the process since team leaders don’t have to come into the disaster assessment center.

The next step in damage assessment disaster recovery is to fully document the extent of damages to public facilities. This effort is included in the Preliminary Damage Assessment (PDA) and may include state and federal assistance. The Project Worksheet (previous page) should be used for documentation of damage and the repairs to facilities. The PDA/Project Worksheet should be used to document the scope of work and cost estimate for each site. Using this form during the PDA will eliminate extra work effort later.

The team is responsible for identifying all damages and completing the repair work orders. Each damage site must be identified. Under FEMA guidelines, teams may include more than one damage site in a project

3.6.1 Combining Categories of Work

More than one category of work may be combined in a single project if the combination is practical. For example, if the project is to repair a park (Category G), it may include work to repair roads within the park.
## Project Worksheet DA-BIZ-PA-1

### Special Location Information

<table>
<thead>
<tr>
<th>Declaration #</th>
<th>Project #</th>
<th>FIPS #</th>
<th>Date</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Damaged Facility**

<table>
<thead>
<tr>
<th>Work Complete as of:</th>
<th>Date</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Applicant

<table>
<thead>
<tr>
<th>Location</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Damage Description and Dimensions


### Scope of Work

- Does the Scope of Work change the pre-disaster conditions at the site? [ ] Yes or No [ ]
- Special Considerations issues included? [ ] Yes or No [ ]
- Hazard Mitigation proposal included? [ ] Yes or No [ ]
- Is there insurance coverage on this facility? [ ] Yes or No [ ]

### Project Cost

<table>
<thead>
<tr>
<th>Item</th>
<th>Code</th>
<th>Narrative</th>
<th>Quantity/Unit</th>
<th>Unit Price</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Cost**

- **Total Cost**

---

**Prepared by:**

Figure 3.15 Project Worksheet  Form DA-BIZ-PA-1
### PROJECT WORKSHEET – INSTRUCTIONS (FEMA Based)

The Project Worksheet must be completed for each identified damaged project. Projects with estimated or actual cost of damage greater than $47,100 are large projects. Projects with estimated or actual cost of damage less than $47,100 are small projects.

<table>
<thead>
<tr>
<th>Declaration No:</th>
<th>Indicate the disaster declaration number as established by FEMA (i.e. &quot;FEMA 1136-DR-TN&quot;, etc.).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project No:</td>
<td>Indicate the project designation number you established to track the project in your system (i.e. 1, 2, 3, etc.).</td>
</tr>
<tr>
<td>FIPS No:</td>
<td>Indicate your FIRS number within this space. This is optional.</td>
</tr>
<tr>
<td>Date:</td>
<td>Indicate the date the worksheet was prepared in MM/DD/YY format.</td>
</tr>
<tr>
<td>Category:</td>
<td>Indicate the category of the project according to FEMA specified work categories. This is optional.</td>
</tr>
<tr>
<td>Applicant:</td>
<td>Name of the governmental or other legal entity to which the funds will be awarded.</td>
</tr>
<tr>
<td>County:</td>
<td>Name of the county where the damage is located. If located in multiple counties, indicate &quot;Multi-County.&quot;</td>
</tr>
<tr>
<td>Damage facility:</td>
<td>Identify the facility and describe its basic function.</td>
</tr>
<tr>
<td>Work Complete as of:</td>
<td>Indicate the date that the work was examined in the format of MM/DD/YY and the percentage of work completed to that date.</td>
</tr>
<tr>
<td>Location:</td>
<td>This item can range anywhere from an &quot;address,&quot; &quot;intersection of...&quot; to &quot;county wide.&quot; If damages are in different locations or different counties please list each location. Include latitude and longitude of the project if known.</td>
</tr>
<tr>
<td>Damage Description and Dimensions:</td>
<td>Describe the disaster-related damage to the facility, including the cause of the damage and the area or components affected.</td>
</tr>
<tr>
<td>Scope of Work:</td>
<td>List work that has been completed, and work to be completed, which is necessary to repair disaster-related damage. Include items recorded on the preliminary damage assessment.</td>
</tr>
<tr>
<td>Does the Scope of Work change the pre-disaster conditions of the site:</td>
<td>If the work described under the Scope of Work changes the facilities conditions (i.e. increases in the size or function of the facility or does not replace damaged components in kind with like materials), check Yes. If the Scope of Work returns the site to its pre-disaster configuration, capacity and dimensions check no.</td>
</tr>
<tr>
<td>Special Considerations:</td>
<td>If the project includes insurable work, and/or is affected by environmental (NEPA) or historic concerns, check either the Yes or No box so that appropriate action can be initiated to avoid delays in funding. Refer to Applicant Guidelines for further information.</td>
</tr>
<tr>
<td>Hazard Mitigation:</td>
<td>If the pre-disaster conditions at the site can be changed to prevent the disaster-related damage, check Yes. If no opportunities for hazard mitigation exist check No. Appropriate action will be initiated and avoid delays in funding. Refer to the FEMA Applicant Handbook for further information.</td>
</tr>
</tbody>
</table>

#### Is there insurance coverage on this facility?
Federal law requires that FEMA be notified of any entitlement for proceeds to repair disaster-related damages, from insurance or any other source. Check Yes if any funding or proceeds can be received for the work within the Scope of Work from any source besides FEMA.

#### Project Cost

| Item: | Indicate the item number on the column (i.e. 1, 2, 3, etc.). Use additional forms as necessary to include all items. |
| Code: | If using the FEMA cost codes, place the appropriate number here. |
| Narrative: | Indicate the work, material or service that best describes the work (i.e. "force account labor overtime", "42 in. Dia. RCP", "sheet rock replacement", etc.). |
| Quantity Unit: | List the amount of units and the unit of measure ("48/cy", "32/If", "6/ea", etc.). |
| Cost: | If this item can be developed from cost to date, contracts, bids, applicant’s experience in that particular repair work, books that lend themselves to work estimates, such as RS Means, or by using cost codes supplied by FEMA. |

#### Total Cost:

**Record total cost of the project.**

#### Prepared By:

Record the name and title of the person completing the Project Worksheet.

#### Record Requirements

Please review the Applicant Handbook for detailed instructions and examples. For all completed work, the applicant must keep the following records:

- Force account labor documentation sheets identifying the employee, hours worked, date and location;
- Force account equipment documentation sheets identifying specific equipment, operator, usage by hour/mile and cost used;
- Material documentation sheets identifying the type of material, quantity used and cost;
- Copies of all contracts for work and any lease/rental equipment costs.

For all estimated work, keep calculations, quantity estimates, pricing information, etc. as part of the records to document the "cost estimate" for which funding is being...
(Category C). However, emergency work (Categories A and B) should not be combined with permanent work (Categories C through G) unless the emergency work is incidental to the permanent repair. Although categories may be combined, FEMA eligibility criteria still will be applied as appropriate to the type of work/costs performed.

For example, some debris removal (emergency work) may be required prior to repair undermining of a bridge abutment (permanent work). Since the debris removal is incidental to completing the bridge repair, the work may be formulated on a single project. Categories are explained in detail on pages 3-18 though 3-21.

A PDA and Project Worksheet are completed for each small project. When worksheets have been completed for all or a logical subset of the small projects, they can be submitted to the DAC. The DAC can begin the processing of claims as soon as the project worksheets are submitted.

If money is needed quickly because of extensive emergency repairs, the team has the option of submitting emergency work as soon as it can formulate those projects. The documentation for permanent repair work then can be completed.

3.6.2 The Project Worksheet

Description: The project description describes the facility, its location, its pre-disaster function, and the disaster-related damage. The scope of work is developed describing in detail the work necessary to return the facility to its pre-disaster design. The damage description and scope of work should be listed in the areas provided on the project worksheet. For a complete, accurate and itemized damage description and scope of work, the form needs to:

- Describe the pre-disaster facility, function and location (including latitude/longitude when known).
- Describe the disaster-related damage to the facility.
- Describe the repairs necessary to repair the facility to its pre-disaster design (scope of work). Describe any change in the pre-disaster design of the facility that is required.
- Describe any known environmental or historic issues or concerns related to the repair. Environmental and historic issues are concerns included in a grouping referred to as special considerations and is discussed more fully in the FEMA Public Assistance Guide.
- Describe any damage that could be repaired in such a manner as to reduce the risk of the same damage from happening again. This type of preventive repair is known as hazard mitigation.

Location: The exact location of the damaged facility must be described. This information should be specific enough to enable field personnel to easily locate the facility if a site visit is necessary. Providing latitude/longitude coordinates will facilitate locating and mapping of projects and should be included, whenever possible.
**Possible Damage Description:** The damage must be described in terms of the function of the facility and its features, or items requiring repair.

**Estimating Costs:** The cost estimate is the estimated cost of repair for the damages. For work that has already been completed at the time the Project Worksheet is prepared, the actual costs should be used.

There are many methods of estimating the cost of uncompleted work, from professional estimating guides to time and materials estimation of a local force account crew.

Time and materials is used for estimating local force account work. This method may be used on projects that will be completed by employees, using owned (or rented) equipment and material purchased (or from stock on hand). This method breaks costs down into labor, equipment and materials. Costs must be thoroughly documented by payroll information, equipment logs or usage records, materials invoices, receipts, payment vouchers, warrants, or work orders. FEMA has published a listing of equipment rates based on national data (included in Appendix B). These rates, or the applicant's established rates, whichever are lower, should be used to compute applicant-owned equipment costs. **FEMA equipment rates do not include operator hours.**

The “Time and Materials” method may be used for estimating local force account work. This method may be used on projects that will be completed by employees, using owned (or rented) equipment and

---

**Summary Public Assistance Damage Assessment DA-BIZ-PA-2**

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Category</th>
<th>Damaged Facility</th>
<th>% Complete</th>
<th>Hazard Mitigation Proposal</th>
<th>Insured</th>
<th>Estimated Repair Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rock Creek</td>
<td>C</td>
<td>5-Mile Bridge</td>
<td>10</td>
<td>YES</td>
<td>YES</td>
<td>$ 250,000</td>
</tr>
<tr>
<td>Rock Creek</td>
<td>E</td>
<td>City Hall</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td>$ 1,200,500</td>
</tr>
<tr>
<td>Rock Creek</td>
<td>A</td>
<td>Debris</td>
<td>25</td>
<td>NO</td>
<td>NO</td>
<td>$ 45,000</td>
</tr>
<tr>
<td>Rock Creek</td>
<td>F</td>
<td>Water Line</td>
<td>10</td>
<td>YES</td>
<td>YES</td>
<td>$ 85,000</td>
</tr>
<tr>
<td>St. Francis Hosp.</td>
<td>E</td>
<td>Power Plant</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td>$ 856,000</td>
</tr>
</tbody>
</table>

**TOTAL PUBLIC ASSISTANCE DAMAGE** $ 2,436,500

---

**Project Worksheet Checklist**

- Completed Project Worksheet
- Completed Special Considerations Question Form
- Estimated and actual costs
- Force account labor
- Force account equipment
- Rented equipment
- Materials and purchases
- Photographs of damage, work underway, work completed
- Insurance information
- Environmental and/or historic alternatives and hazard mitigation opportunities considered for large, improved or alternate projects
- Environmental review documents
- Records of donated goods and services

---

**Figure 3.19 Checklist for Project Worksheet**
and other records, such as materials invoices, receipts, payment vouchers, warrants, or work orders. FEMA has published a listing of equipment rates based on national data (included in Appendix A). These rates, or the applicant's established rates, whichever are lower, should be used to compute applicant-owned equipment costs. FEMA equipment rates do not include operator hours.

### Special Note:
If sites are combined in such a way that the cost estimate exceeds the large project/small project threshold, the project is considered a large project. This is true even if all individual sites within the project are damaged less than the large project threshold amount.

3.6.2.1 Project Worksheet Special Issues
The key to expedited small project review and approval is early identification of factors that affect compliance with environmental resources, disaster assistance, and historic preservation legislation and executive orders on floodplain, wetlands, and environmental justice. Projects with identified special considerations issues should be submitted as soon as possible, since these projects will need to be reviewed by specialists prior to project approval and funding.

### 3.6.3 Types of Projects

#### 3.6.3.1 Small Project
A small project is any project that has a cost estimate less than the current threshold for large/small projects. This threshold changes every October 1 based on the consumer price index. For federal fiscal year 1999, the threshold was $47,800. Funding for small projects is based on the approved estimate to complete the scope of work. If the applicant discovers a significant cost overrun related to the actual cost to complete all estimated small projects, then an appeal may be submitted for the additional funds within 60 days of completing the last small project.

#### 3.6.3.2 Large Project
A large project is any project that has a cost estimate greater than the threshold for large/small projects ($47,800 for federal FY 99). All large projects are funded based on actual costs to complete the eligible scope of work. The funding for each large project will be adjusted after all work is complete.

#### 3.6.3.3 Improved Project
An improved project is any project (large or small) where the applicant chooses to make additional improvements to the facility while making disaster repairs. These are projects in which the funding for approved work cannot be tracked within the improved projects because of physical changes or contracting arrangements. For example, an applicant might propose laying asphalt on a gravel road or replacing a firehouse that originally had two bays with one that has three.

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**SPECIAL NOTE:**
Cost plus — Percentage of cost contracts, percentage of construction cost contracts, and contingency contracts are **NOT ELIGIBLE**.
Funding for improved projects is limited to the approved federal estimate to complete the eligible scope of work for repair of the existing facility (without the improvements). The state may approve an improved project, however, FEMA must review the project for compliance with environmental and historic statutes and other special considerations that apply. If improvements are required (e.g., ADA ramp alternate location), the project may not be considered an improved project, but an environmental review still may be required.

If work has not yet begun on a project, but a contract has been bid or let for the eligible work, then the contract price can be used. General types of contracts include:

- **Unit price:** Contract for work done on an itemized basis with prices broken out per unit.
- **Lump sum** — Contract for work within a prescribed boundary with a clearly defined scope and a total price.
- **Cost Plus Fixed Fee** — Either a lump sum or unit price contract with a fixed contractor fee added into the price.
- **Time and Materials Contracts** — These should be avoided but may be allowed for work that is necessary immediately after the disaster has occurred. However, if used, contractor expenses must be carefully documented. A cost ceiling or “not-to-exceed” provision also should be included in the contract. These contracts should be terminated once the designated dollar ceiling or not-to-exceed number of hours is reached. On occasion, they may be extended for a short period when absolutely necessary, for example, until Unit Price contracts have been prepared and executed.
- **Cost plus** — Percentage of cost contracts, percentage of construction cost contracts, and contingency contracts are not eligible.

**The Cost Estimate:** The cost estimate is the estimated cost of repair for the damages. For work that has already been completed at the time the Project Worksheet is prepared, the actual costs should be used. There are many methods of estimating the cost of uncompleted work, from professional estimating guides to time and materials estimation of a local force account crew.

Time and materials is used for estimating local force account work. This method may be used on projects that will be completed by employees, using owned (or rented) equipment and material purchased (or from stock on hand). This method breaks costs down into labor, equipment and materials. Costs must be thoroughly documented by payroll information, equipment logs or usage records, and other records, such as materials invoices, receipts, payment vouchers, warrants, or work orders. FEMA has published a listing of equipment rates based on national data (included in Chapter Five). These rates, or the applicant’s established rates, whichever are lower, should be used to compute applicant-owned equipment costs. FEMA equipment rates do not include operator hours.

**3.7 Public Assistance (PA) Software**
Our “Web-Enabled” software, (by subscription service from www.damageassessment.biz) will fill-out the public assistance forms for you. The form can be filled-in from any location in the city or county and all you need is access to the Internet.

**First,** the DA-BIZ-PA-1 form (Project Worksheet located on page 3-10) can be filled in on-line. Our software will also “pick” the unit pricing for estimating line item damage costs and then total the form.

**Second,** the results from DA-BIZ-PA-1 are then “rolled-up” into DA-BIZ-PA-2 (page 3-10) as a summary total of all public assistance damages.

**Third,** the totals from the IA and PA damage assessment are “rolled-up” into the Situation Report (see pages 3-16 and 3-17). The Situation Report is online “Web-Enabled” and can also be filled-in from any location where the Internet can be accessed.

**Fourth,** all of the information is then stored on our off-site servers (or on your computer) for immediate printing of reports for elected officials, damage assessment coordinators, state and federal offices.
Damage Assessment Situation Report Form DA-BIZ-SRF-105

1. Reporting location Unincorporated El Paso County, Colorado
2. Cause of Damage **Flooding**
3. Area Affected Unincorporated El Paso County

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>A. Killed</td>
<td>0</td>
<td>C. Sick</td>
</tr>
<tr>
<td></td>
<td>D. Displaced</td>
<td>0</td>
<td>F. Hospitalized</td>
</tr>
</tbody>
</table>

5. Damage to Essential Facilities (indicate capacity lost and estimated dollar loss)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Hospital</td>
<td>0%</td>
<td>$0</td>
</tr>
<tr>
<td>B. Power Plants</td>
<td>0%</td>
<td>$0</td>
</tr>
<tr>
<td>C. Food Availability</td>
<td>0%</td>
<td>$0</td>
</tr>
</tbody>
</table>

6. Damage to Public Property (indicate capacity lost and estimated dollar loss)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Roads</td>
<td>0%</td>
<td>$0</td>
</tr>
<tr>
<td>B. Bridges</td>
<td>0%</td>
<td>$0</td>
</tr>
<tr>
<td>C. Schools</td>
<td>30%</td>
<td>$30,000</td>
</tr>
<tr>
<td>D. Irrigation Districts</td>
<td>0%</td>
<td>$0</td>
</tr>
</tbody>
</table>

7. Damage to Private Property (indicate capacity lost and estimated dollar loss)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Dwelling Units</td>
<td>10%</td>
<td>$50,000</td>
</tr>
<tr>
<td>B. Commercial Facilities</td>
<td>0%</td>
<td>$0</td>
</tr>
</tbody>
</table>

8. Are there large accumulations of debris? Yes (if Yes, explain in remarks).
9. Is the reporting government intact enough to fulfill its governing functions? Yes

10. Dollar amount of government resources spent to date for event

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Materials</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Services</td>
<td>$150,000</td>
<td>$60,000</td>
</tr>
<tr>
<td>Roads and Bridges</td>
<td>$550,000</td>
<td>$300,000</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>$45,000</td>
<td>$0</td>
</tr>
<tr>
<td>Fire and Rescue</td>
<td>$30,000</td>
<td>$0</td>
</tr>
<tr>
<td>Other Services</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Contractual Services</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>$775,000</strong></td>
<td><strong>$360,000</strong></td>
</tr>
<tr>
<td><strong>TOTAL RESOURCES</strong></td>
<td><strong>$1,365,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.21 Situation Report Page 1 of 2
### 11. Assistance required to cope with the disaster or emergency (check ( ) requirement

<table>
<thead>
<tr>
<th>PUBLIC NEEDS</th>
<th>WATER SUPPLY</th>
<th>FLOOD FIGHTING</th>
<th>VICTIM NEEDS</th>
<th>ADMINISTRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restore Power</td>
<td>Drinking</td>
<td>Dike Building</td>
<td>Search &amp; Rescue</td>
<td>Activate EOC</td>
</tr>
<tr>
<td>Communications</td>
<td>Sanitary Sewers, Etc.</td>
<td>Sandbagging</td>
<td>Evacuation</td>
<td>Public Announcements</td>
</tr>
<tr>
<td>Transportation</td>
<td>Fire Fighting</td>
<td>Pumps</td>
<td>Food</td>
<td>Maps Available for:</td>
</tr>
<tr>
<td>Secure Area</td>
<td>Other</td>
<td>Other (specify)</td>
<td>Shelter</td>
<td>General Disaster Area</td>
</tr>
<tr>
<td>Debris Clearance</td>
<td></td>
<td></td>
<td>Clothing</td>
<td>Specific Damage Sites</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medical</td>
<td>Location EOC, DAC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other (Specify)</td>
<td>Field Offices</td>
</tr>
</tbody>
</table>

### 12. Location of EOC

**Address**
El Paso County EOC

**Phone**
333-333-3333

**Other Communications Available**
Internet

### 13.

**Available:** $10,000

**Expected:** $0

### 14.

Jim Mesite 1/6/2003 19:38:26

**Name**
**Date Time**

**Emergency Manager**

**Title**

**Signature (if required)**
**Date Time**
**Work Eligibility — General Eligibility**

<table>
<thead>
<tr>
<th>A. An Eligible Item of Work Must:</th>
<th>Be required as the result of a major disaster event, be located within a designated disaster area, be the legal responsibility of an eligible applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Other Federal Agency (OFA) Programs:</td>
<td>FEMA will not provide assistance when another federal agency has specific authority to restore facilities damaged by a major disaster.</td>
</tr>
<tr>
<td>C. Negligence:</td>
<td>No assistance will be provided to an applicant for damages caused by its own negligence through failure to take reasonable protective measures. If negligence by another party results in damages, assistance may be provided on the condition that the applicant agrees to cooperate with FEMA in all efforts to recover the cost of such assistance from the negligent party.</td>
</tr>
<tr>
<td>D. Special Considerations Requirements:</td>
<td>Necessary assurances shall be provided to document compliance with special requirements including, but not limited to, floodplain management, environmental</td>
</tr>
</tbody>
</table>

**Facility Eligibility — General Eligibility**

With certain exceptions, an eligible facility is any building, works, system, or equipment that is built or manufactured, or any improved and maintained natural feature that is owned by an eligible public or private nonprofit (PNP) applicant.

| A. An Eligible Facility Must: | Be the responsibility of an eligible applicant, be located in a designated disaster area, not be under the specific authority of another federal agency, and be in active use at the time of the disaster |
| B. Examples of Eligible Public Facilities May Include: | Roads (non-federal aid), Sewage Treatment Plants, Airports, Irrigation Channels, Schools, Buildings, Bridges and Culverts, and Utilities. |
| C. Eligible Private Non Profit Include: | Educational facilities (classrooms, supplies, and equipment), Gas, water, and power systems, Emergency facilities (fire stations and rescue squads), Medical facilities (hospitals and outpatient centers), Custodial care facilities, Essential government services (All eligible PNP facilities must be open to the general public) |
| D. Restrictions: | Alternative Use Facilities — If a facility was being used for purposes other than those for which it was designed, restoration will only be eligible to the extent necessary to restore the immediate pre-disaster alternative purpose. |
| | Inactive Facilities: - Facilities that were not in active use at the time of the disaster are not eligible except in those instances where the facilities were only temporarily inoperative for repairs or remodeling, or where active use by the applicant was firmly established in an approved budget, or where the owner can demonstrate to FEMA’s satisfaction an intent to begin use within a reasonable time. |

Figure 3.23 Work and Facility Eligibility
Category A — Debris Removal Emergency Work

A. **Public Interest Determination by FEMA:** Eliminate immediate threats to life, public health and safety, eliminate immediate threats of significant damage to improved public or private property, and ensure economic recovery of the affected community to the benefit of the community-at-large

B. **Private Property Debris Removal**

Debris removal from private property is the responsibility of the individual property owner. When it is in the public interest for an eligible applicant to remove debris, the following criteria exists on urban, suburban and rural property, including large lots:

1. Clearance of living, recreational and working areas is eligible, except areas used for crops and livestock, or unused areas.
2. No assistance will be provided to individuals or private organizations for removing debris from their own property except for eligible PNP applicants.
3. Right of Entry Agreement must be obtained to indemnify the federal government against any claim arising from such removal.

Category B — Emergency Protective Measures

A. **General:**

1. Measures to save lives, to protect public health and safety, and to protect improved property, are eligible.
2. To be eligible, emergency protective measures for property must eliminate or lessen immediate threats of significant damage to improved public or private property through measures that are cost effective.
3. FEMA may require a certification by local, state and/or federal officials that a threat exists, including identification and evaluation of the threat and recommendations of the emergency work necessary to cope with the threat.

B. **Emergency Access:**

1. Emergency access may be provided when emergency repair or replacement of a non-public facility economically eliminates the need for temporary housing. The work is limited to that necessary for the access to remain passable through events that are immediate threats (five-year storm). The work must be performed by an eligible applicant and it is subject to cost-sharing.

Permanent Restoration of Facilities

A. **General Eligibility:**

1. Facilities will be restored on the basis of design, capacity and function of such facilities as they existed immediately prior to the disaster and in conformity with applicable standards.
2. Codes and standards must be in writing, apply to the type of work, and be in place and enforced prior to the disaster declaration. They must apply uniformly to all similar types of facilities.
3. Hazard mitigation measures, which are cost effective, may be required by FEMA. Any requirement for hazard mitigation placed on applicants by FEMA will be eligible. Applicants may and are encouraged to suggest hazard mitigation measures.
4. A facility is considered repairable when disaster damages do not exceed 500/0 of the cost of replacing a facility. (Conduct a repair versus replacement analysis if repairs to a facility would appear to cost 500/0 or more of the cost of replacing the facility.)
5. Relocation may be approved by FEMA when a facility is subject to repetitive damage, and it is cost effective to relocate. When relocation is required by FEMA, eligible work may include land acquisition and such ancillary facilities as roads and utilities (see the Public Assistance Guide, FEMA 286 to be replaced by FEMA 322).

Figure 3.24 Categories A & B and Permanent Restoration of Facilities
Category C — Road Systems

A. **Repairs and Replacements**: The damage must be directly related to the disaster. It cannot be a pre-existing condition or caused by an event after the official period of incidence. Repairs to structures may be made when the estimated repair cost is less than the estimated replacement cost, unless the structure is damaged greater than 500/0. If a structure is damaged to the extent that repairs exceed 50 percent of the replacement costs, funding may be provided to replace the structure. The applicant also may choose to make repairs; however, the funding provided will be limited to the cost of replacement.

B. **Road Repairs**: On gravel roads, the base need not be damaged to be eligible for major gravel replacement. Loss of gravel must be evident. Potholes and rutted surfaces must be shown to be a result of the disaster event.

C. **Paving**: Loss of paved surface is eligible. Alligatored surface is generally a sign of normal deterioration and is not eligible, unless shown to be exclusively disaster-related.

D. **Standards**: Bridge and road standards that have been formally adopted and are in practice, or adopted and placed in effect prior to the date of the disaster declaration, are eligible. The standards must apply to work accomplished using all sources of funds, and not limited to work receiving state and/or federal aid. A copy of standards and council meeting minutes approving the standards should be maintained in the permanent applicant file.

E. **On-System Facilities**: Facilities funded by other federal agencies, such as the Federal Highway Administration (FHWA), are not eligible for permanent repair. Debris removal and emergency measures are eligible on federal-aid roads except where the Emergency Relief (ER) program of the FHWA is activated. For further particulars, see the Public Assistance Guide, FEMA 286 (to be replaced by FEMA 322).

F. **Scheduled Replacement**: Facilities are not eligible if scheduled for replacement within the next 12 months using federal funds.

Category D — Water Control Facilities

A. **Levees and Dams**: If the levee or dam meets the definition of a flood control work and thus falls within the authority of the U.S. Army Corps of Engineers (USACE) or Natural Resources Conservation Service (NRCS), it is not eligible for permanent restoration.

B. **Drainage Channels**: The USACE or NRCS may be involved in some flood channels; in these cases, local drainage channels are not eligible. Manmade channels must show evidence of routine maintenance and will be restored to pre-flood hydraulic capacity. Appropriate documentation, including construction and maintenance records for the manmade channels should be placed in the permanent applicant file. The documentation should include records demonstrating the pre-disaster condition of the channels.

C. **Natural Streams**: Debris removal from natural streams is not normally eligible for assistance. Only debris that causes a threat to lives, public health and safety, or damage to improved property from a five-year flood event is eligible. Work to protect improved property must have a favorable ratio of benefits to costs. Any work in natural streams must also be closely reviewed and monitored to minimize undesirable environmental effects.

D. **Seeding and Sodding**: Seeding, grass, and sod will be eligible only when necessary to stabilize slopes and minimize sediment runoff.

E. **Debris**: Disaster-caused debris in catch basins and channels is eligible for removal when the pre-existing condition can be established.

Figure 3.25 Categories C & D Permanent Restoration of Facilities
### Category E — Buildings and Equipment

**A. Restoration:** Buildings are to be restored to pre-disaster design capacity in accordance with present codes and standards.

**B. Use and Occupancy:** The building must have been in active use prior to the disaster. If only part of the building was occupied at the time of the disaster, or if the building was being used for a less demanding function than its original purpose, then replacement will be made at the reduced size, or restoration will be limited to that required to resume the immediate pre-disaster use.

**C. Extensive Damage:** If repairs to a facility would cost 50% or more of the cost of replacing the facility to its pre-disaster design, then the facility is eligible for replacement. This is known as the 50% Rule and is discussed in detail in the Public Assistance Guide, FEMA 286 (to be replaced by FEMA 322).

**D. Insurance:** Check on insurance currently in force. Insurance coverage pays first. Uninsured losses are eligible. If repair costs exceed $5,000, a general hazard insurance commitment will be required equal to the amount of damages. Repair costs for flood damages occurring to buildings and/or contents within the 100-year flood zone will be reduced by the amount that would have been available from a standard NFIP flood policy whether or not the facility was actually insured.

**E. Equipment:** Office equipment and furniture should be replaced with used or surplus, if available. Repair if feasible.

**F. Supplies:** Consumable supplies will be replaced to pre-disaster quantities.

**G. Vehicles:** Special equipment, such as two-way radios, is eligible. Blue book prices should be used and salvage taken. Check for comprehensive insurance. If repair costs exceed $5,000, an insurance commitment will be required equal to the amount of damages.

**H. Grounds:** Grounds around buildings may be included with building structure if it is to be handled as a single project, except trees and other plantings, which are not eligible.

**I. Cleaning:** For buildings with light damage, cleaning and painting is eligible.

**J. Worship Facilities:** Buildings that are used primarily for worship or religious education purposes are not eligible.

### Category F — Utilities

**A. Electrical:** Restore to pre-disaster design in the most economical manner. Extra pole structures are sometimes necessary to restore the function when erosion has destroyed stream banks and ground clearance has to be maintained over longer distances.

**B. Sewer:** Visual evidence of ground subsidence indicating infiltration into the pipe must be present.

**C. TV Inspection:** Limited TV inspection is eligible when damage is apparent. Use of TV inspection to search for problems is not eligible.

**D. Cleaning:** Cleaning of disaster-related debris from sewer lines is eligible only when necessary to restore adequate functioning of the system in specific reaches when the pre-existing condition can be established.

**E. Revenues:** Loss of revenue is not eligible. Added costs or charges for providing regular utility services are not eligible.

### Category G — Parks, Recreation, and Other

**A. Grass:** Grass, seeding, and sod are eligible only when necessary to stabilize slopes and minimize sediment runoff.

**B. Trees:** Trees and other plantings are not eligible.

**C. Damage Estimates:** All structures and damage sites within a park may be included as a single project if repair or contract is being handled that way. They can be claimed separately if desired.

**D. Beaches:** To be eligible, a beach must have been improved to a designed profile and regularly maintained prior to the disaster. Appropriate documentation should be placed in the permanent applicant file to show that the beaches were designed, constructed, and routinely maintained. The documentation should include records showing when beach sand was last replaced and at what depths. Permanent restoration of the sand on natural

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**Figure 3.26 Categories “E” through “G” Permanent Restoration of Facilities**
Comprehensive disaster planning requires an accurate pre-disaster survey and complete identification of all critical facilities and infrastructure components that are at risk in your community. In assessing the risk posed by or to these facilities, you must consider both natural and man-made causes. This also includes the threat of terrorist acts against your community. These surveys when completed in a systematic manner using the “Map-Grid” system developed by www.greenalert.net will provide “Base-Line” data following an event.

Chapter Four. . . Includes the role of the Damage Assessment Coordinator, and Management of the Damage Assessment Process.

4.1 Organize the Damage Assessment Team (Step 1 Chapter Two)

In Chapter Two—Step 1 we introduced you to the damage assessment team and Damage Assessment Coordinator (DAC). The appointment of the damage assessment coordinator (DAC) is critical to the success of damage assessment and must be done well in-advance of the disaster or emergency. The qualifications of the damage assessment coordinator will vary according to the size of the local government jurisdiction.

4.1.1 The Damage Assessment Coordinator

We recommend that the person appointed is a leader within the building inspection department, public works, road and bridge, or similar department. The damage assessment coordinator is stationed in the emergency operations center for management of the damage assessment. The Chief Official, Denver City and County, serves as the damage assessment coordinator. We believe that the damage assessment coordinator should not be the emergency manager/coordinator or an elected official. The emergency manager/coordinator and elected officials will receive the damage information from the damage assessment coordinator and make decisions on recovery and mitigation actions. The damage assessment coordinator should maintain a list of critical facilities such as hospitals, water and sewer treatment facilities, city/county buildings, jails/prisons and utilities. Include the facility name, a contact name, 24-hour phone, 24-fax, location and special problems. A database of team members, telephone tree and priorities for calling and a phone/fax directory, which must include 24-hour numbers for all team members staff. We have provided an example of a visual database of the teams and their experience as Figures 4.3 and Figure 4.4 on Page 4-3. The role and responsibilities of the damage assessment coordinator are listed in Figure 4.1 (next page).

In larger cities, such as Denver City and County), you can expect team membership to be quite large. We have featured the Denver City and County Building Inspection Department and the Emergency Operations Team as an example in this manual (they are our BETA site). In smaller cities and counties you may desire to “pool-your-resources” and work together with other cities within your county and form a county-wide damage assessment team. This may provide you with a larger selection of qualified team members to choose from.
1. Once activated for duty by the emergency management coordinator, notifies others according to alert list and disaster area, and determines assignments.
2. Obtains and records information from the team members about each affected damage site and area.
3. Briefs damage assessment teams as to procedures, criteria, checklists, forms, and general situation of the disaster.
4. Sets the time, date and location for receiving damage assessment information and for de-briefing teams.
5. Ensures damage assessment is conducted in a timely and efficient manner.
6. Is responsible for recording information on summary sheets and provides briefings to the emergency management coordinator and elected officials.
7. In coordination with the public information officer, assists in keeping the public informed about hazardous conditions.
8. Maintains the alert list of team members, including name, organization, address, office and home phone, cell phone, pager, e-mail, fax, and a 24-hour number.
9. Identifies individuals to provide needed support, including staff, staff of other agencies or departments, or volunteers.

Determines when more than one team is needed, depending on the size of the local and or state government, replaces and trains team members who resign (New members should be appointed for a specified number of years. Each team needs experts in different fields.), mails a letter of invitation to join the team (see example included in this chapter), and creates a team roster by completing the roster format included in this chapter.

1. Makes sure maps of local governments are located in the Emergency Operations Center (EOC) (Small scale maps should be used for pinpointing effected areas, blocked roads, etc. Clip-board sized maps should be provided for each damage assessment team leader.), and uses them in disaster area survey assignments.
2. Receives instructions from the emergency management coordinator at briefing of damage assessment team (DAT).
3. Coordinates assessment activities of team members and recruits new members for the team, as necessary.
4. Maintains the team alert list and the priorities for calling team members (The list must include 24-hour numbers for local officials, agencies, and organizations.)
5. Conducts damage assessment activities and submits team reports to the emergency management coordinator.
6. Maintains a supply of necessary forms (These are located in Appendix A and on our web site at: www.greenalert.net for the DAC to photocopy and use in preparing, conducting, and reporting phases of damage assessment. Some of the forms are used in general administration of a damage assessment, some for data collection, some for summarization and reporting. An appendix of all forms is included with this manual.)
7. Determines whether the damage assessment process will require additional staff to assist with tracking, recording, and reporting.
8. Annually updates the damage assessment manual (The local and state emergency management office is responsible for maintaining the readiness of the damage assessment team. Periodic team briefings can maintain readiness.)
9. Maintains a list of critical facilities such as hospitals, prisons, utilities, parks and recreation facilities (Each entry includes the community, county, facility name, contact name, 24-hour phone, 24-hour fax, location and special problems.)
10. Maintains a damage assessment tracking system, computerized damage assessment program, GIS, log of events, status board, and other tools in the EOC.

Figure 4.1 Role and Responsibilities of Damage Assessment Coordinator
4.1.2 The Damage Assessment Team
To conduct an accurate damage survey, local governments must have capable damage assessment teams. These teams must be identified and trained in advance of the disaster so they will be ready when needed.

Damage assessment teams for public and commercial property will consist primarily of trained local government employees, but may also include private sector personnel, such as engineers, and insurance adjusters. In most jurisdictions, the collection of data for damage to public property may be coordinated by the public works or risk management department. Damage assessment teams will be organized by their expertise, with each department agency expected to provide team personnel when requested by the damage assessment coordinator.

Damage assessment teams may include the following expertise, although all may not be needed for every disaster.
1. City/county engineers, council members, commissioners, and department heads, such as public works, utilities, risk management, and road & bridge for evaluating debris clearance, public health and protective issues, and road and street damage

2. Building inspectors, tax assessors, lending institutions, or insurance companies for evaluating damages to buildings, mobile/modular homes and businesses

3. Red Cross representatives to assist those needing immediate assistance

4. Hospital administrators or county health officials for providing information on fatalities, injuries, community health, etc.

5. School district superintendents or school principals to provide school damage information

6. County agents for crops, farm and ranch damage information

7. Representatives in charge of levees, drainage systems, electric cooperatives and other nonprofit and government service facilities (i.e., state agencies, river authorities, etc.)

City and county engineers, utility company personnel, police and fire officials, property appraisers, building inspectors, county agricultural extension agents, county Health Officials, real estate appraisers, insurance agency representatives.

Each team must include a local government representative from the political subdivision affected and be knowledgeable on all aspects of the damage sites the team will inspect. This includes insurance information related to buildings and structures, identify damaged public facilities, structures, and emergency work performed by the jurisdiction. The jurisdiction must maintain records pertaining to each damage site, listing labor, materials, and equipment used at that site for both emergency and permanent work (see Chapter Six for more details about recordkeeping).

Teams will vary depending on the severity, type of damage, and the availability of personnel. Each team should have a team leader who makes sure the team has the proper forms, maps with identified areas marked, and transportation.

4.1.3 Damage Assessment Team Supplies
The damage assessment coordinator will supply sufficient numbers of forms for records and signs for posting, including a building code book (see Figure 4.4 for a completed and suggested list of recommended supplies).

![Figure 4.4 Damage Assessment Team Supplies](image)

- Backpack, maps, clip board, paper, pens, spray paint (florescent red or pink to mark buildings), hard hats, safety glasses, tape-recorders, camera (digital preferred), video camera (if available), boots, rain gear, gloves, hard hat, sleeping bag, flashlight (with extra batteries), assessment team identification, vehicle identification, local building code book, personal hygiene kit, tape measure, and cloth/paper breathing mask, 2-day food ration (energy-bars), water.

Additional team equipment to be supplied as needed and available may include:

- Tools, such as hammers, levels, crowbars, etc., Video camera, Barrier tape, Staple guns, Duct tape, Vehicle identification, Team clothing/uniform, Ladders, Binoculars, Inspection forms/signs, Office supplies (pens, markers, pads, tape, file box, folders, etc.)

4.2 Two Types of Assessments
The two types of damage assessment are: (1) Individual Assessment (IA) and (2) Public Assistance Damage Assessment. We have provided two Figures (4.8 and 4.9 on page 4-7) to indicate the steps and forms to be used during this process as an extra checklist.

4.3 Local Government Responsibilities
Local government officials are encouraged to appoint qualified staff members to the damage assessment teams. Damage assessment is the responsibility of the entity having jurisdiction over the disaster area. The information is forwarded to the local emergency manager. The damage assessment coordinator coordinates all of the assignments for inspection.

The local government pre-disaster condition must be gathered in advance. Surveys should be designed to develop data for long-term program planning as well as for emergency response. The risk assessment, facilities in danger, and the resulting shelter needs can be
calculated and should be tabulated such as we describe in Chapter 2.

Information from the American Red Cross and others may be used to determine the community needs for housing units. The “Base-Line” information is so valuable to the local government. It’s how you use it to your advantage that has the most benefits. Remember, an Individual Assistance (IA) Damage Assessment showing damage to residences and businesses may not be enough information for a Presidential Declaration. However, if more than 50 housing units are more than 50 percent damaged the governor may request a Small Business Administration Disaster Declaration.

The collected damage assessment information may be useful to elected officials and emergency program planners in future mitigation projects. Assessments will provide information to assist agencies and departments identify and respond to different types of community needs.

4.4 Standardized Reporting
Using standard forms such as the Project Worksheet, and forms we have developed from years of experience ensures standardized reporting methods. In future additions to this manual we will be adding new forms and information to both the web site and outreaches to our clients.

Disaster assessments will invariably be carried out by numerous people operating independently. Therefore, in order to provide a standard process we have established a system that “works”. Our standard survey forms provide clear guidelines on how information is reported.

4.5 Interpretation of Damage Assessment
The Damage Assessment Coordinator must know what types of damages to report to the local government leadership. Skilled disaster managers must be able to provide the basis for leadership to decide whether to declare a disaster and request outside help. Local government leadership must understand their role in requesting assistance from state and federal agencies.

4.6 Information Dissemination
Good and reliable Information to response agencies will stimulate action and speed response. This often means structuring the information in such a way that it
will stimulate response and highlight or underscore the critical locations or concerns. Failure to disseminate and share information derived from assessments is one of the major problems in emergency management.

Figure 4.7 - Example of Denver City/County Response Actions following a Disaster or Emergency.
Chapter 4 - 7

Damage to Homes & Businesses

Conduct Individual Assistance Windshield Survey

Figure 4.8 Individual Assistance (IA) Survey

Damage to Public Facilities

Conduct Public Assistance Initial Survey

Public Assistance Damage Information to the Situation Report

Figure 4.9 Public Assistance (IA) Survey
Figure 4.10 Sample Staffing of the Denver Damage Assessment Team

Special Note: The above chart and positions are described for a large organization (Denver City and County) which has over 90 city building inspectors and close to a hundred city engineers. Smaller communities may use a scaled-down version of these descriptions.
Chapter Five describes the local government and private nonprofit actions that must be taken to obtain reimbursement for damages following a major disaster. It applies to FEMA's role in assisting state and local government recovery expenses. It also describes the states' role in providing both monetary and technical assistance following the disaster. The public assistance programs of the federal government and how local governments can apply for assistance are described in this chapter.

5.1 Federal Public Assistance Program
The Public Assistance (PA) Program provides federal disaster assistance to state and local government organizations for debris removal, emergency protective measures and the permanent restoration or replacement of public facilities that are owned and operated by an eligible organization. Assistance may also be provided to certain private nonprofit organizations that provide services of a governmental nature open to all persons within the community.

The state emergency management agency administers the PA Program, as the grantee for the state. Eligible organizations for the program are considered subgrantees. The program reimburses subgrantees for at least 75 percent of eligible costs that result from the disaster.

Upon a declaration of a major disaster or emergency by the president, applicant's briefings are conducted by the state PA Program staff in the designated counties. These applicant's briefings provide an overview of the program requirements and a hands-on session on completing the required application forms. To apply for assistance, each organization must submit a completed FEMA Form 90-49, Request for Public Assistance, to the FEMA within 30 days of the date of the Presidential Declaration. Organizations must also complete and submit a state PA Grant Agreement before reimbursement payments can be made.

5.2 Federal PA Program
The PA Program is authorized by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288 as amended. It provides supplemental financial assistance to state and local governments, and certain private nonprofit organizations for response and recovery activities required as a result of a presidentially declared disaster or emergency.

The Figure 5.1 describes the multi-step funding process under the PA Program. The disaster event triggers the declaration process, which for some applicants may or may not include a preliminary damage assessment (PDA). All potential applicants will attend an applicant's briefing. Applicants will submit the Request for Public Assistance (FEMA Form 90-49), which is available at the applicant's briefing and through electronic means, such as the Internet, to officially apply for funding. Each applicant will be assigned to a public assistance coordinator (PAC) and the PAC will hold a kickoff meeting with the applicant to begin the process of documenting disaster recovery projects. The PAC will assist the applicant in completing Project Worksheets for all projects. Project Worksheets will be approved after validation. The funding will be made available to the state. The state then disburses the funding to the applicant according to state regulations.

FEMA's goal is to provide the funding as efficiently and expeditiously as possible to allow a quick recovery of communities affected by disaster or emergency events.

5.3 Federal Public Assistance Coordinator
Upon receipt of a request, FEMA will assign a Federal
Public Assistance Coordinator (PAC) to work with the applicant to assist with processing the request.

The federal PAC provides information to the state and applicants on activities relative to their public assistance claims. The “one stop” customer service provided by the PAC includes:

- Assisting the applicant in all areas of eligibility, cost estimating and special considerations
- Coordinating all aspects of the PA Program
- Educating the applicant on the PA Program
- Providing up-to-date applicant status

5.4 Request for Public Assistance

The Request for Public Assistance serves several purposes. The request:

- Is used to apply for assistance
- Identifies the responsible organization
- Names the applicant’s representative
- Lists physical and mailing addresses

After submitting the request form, the applicant will define each eligible damage project on a Project Worksheet. The Project Worksheet will identify a detailed scope of work, cost estimates and any special considerations for the project.

The Project Worksheets are developed by the applicant with assistance from the PAC. The backup data for a Project Worksheet is kept on file with the applicant and copies are supplied as needed to the PAC to resolve eligibility and special consideration issues.

The applicant will be responsible for completing a Project Worksheet for each project. The Project Worksheet will describe the details of the specific projects, identify the scope of work, and show how cost estimates were derived. The Project Worksheet will also be used to identify and resolve all special consideration issues and describe any unique aspects of the project. The applicant will receive assistance from a project officer on all large projects and any small projects where they request assistance from the PAC. Project officers are FEMA or state emergency management professionals who have been trained and credentialed in working with applicants to complete Project Worksheets. Completed Project Worksheets are submitted to the PAC for review, validation, approval and funding.

5.4.1 Immediate Needs Funding (INF)

If the applicant has a need for funds to pay for urgent emergency work, they may apply for Immediate Needs Funding (INF). Usually, funds are provided within days of declaration and prior to FEMA approval of specific emergency work Project Worksheets. Only those applicants who participated in the PDA can apply for INF. Applicants who did not participate in the PDA can request expedited emergency work projects through their PAC. The total assistance for emergency work will be reconciled on specific emergency work Project Worksheets approved for those applicants who receive INF.

All applicants under the PA Program must submit the required documentation in a timely manner. It is in the applicant’s best interest to submit complete and accurate documentation as soon as possible.
The Request for Public Assistance is required for an applicant to be considered for the PA Program. The request may be completed at the applicant’s briefing and must be submitted within 30 days of designation.

5.5 Eligible Applicants
Eligible applicants include state agencies, counties, cities, towns, villages, other state political subdivisions, Native American tribes or tribal organizations, Alaskan Native villages or organizations, and certain private nonprofit organizations.

Private nonprofit entities must submit a tax exempt certificate under Section 501 of the Internal Revenue Code and their organization charter or bylaws. If the IRS tax exempt certificate is not available, FEMA will accept a written statement of certification from the state. The facility must be open to the general public.

5.6 Eligible Projects
The PA Program provides assistance for eligible projects. Four factors are considered to determine eligibility of a project:

1. Applicants must be eligible.
2. Eligible facilities must:
   - Be damaged as a result of the disaster event
   - Be located within a designated disaster area
   - Be the legal responsibility of an eligible applicant
   - Be in active use at the time of the disaster event
   - Not be under the authority of any other federal agency to fund
3. Eligible work must be authorized in the Stafford Act.
4. Eligible costs must:
   - Be reasonable and necessary to accomplish eligible work
   - Be in compliance with federal, state, and local laws and regulations

5.7 Eligible Private Nonprofits
The following private nonprofit entities are eligible:

- Fire/Emergency
- Medical
- Hospitals, outpatient facilities, rehabilitation facilities, and facilities for long-term care
- Custodial care
- Institutional care for persons requiring close supervision and some physical constraints on their daily activities
- Utility
- Electric power, telephone, sewer and water, and gas services
- Primary and secondary schools that satisfy state requirements for compulsory attendance
- A higher education institution that must require graduation from a secondary school, award a Bachelor’s degree or two-year certificate, provide a not less than one-year training program, and be state accredited
The following private nonprofit facilities, which provide essential governmental services and are open to the general public, are eligible:

- Museums
- Zoos
- Community centers
- Libraries
- Homeless shelters
- Senior citizen/day care centers
- Rehabilitation facilities
- Shelter workshops
- Other facilities that provide health and safety services of a governmental nature

Other examples of eligibility include low-income housing, alcohol and drug rehabilitation centers, programs for battered persons, transportation to medical facilities, and food programs.

Examples of ineligible services or facilities are recreational, job counseling or job training, advocacy groups not directly providing health services, conference facilities, and performing arts centers.

5.8 Determining Eligibility

Several factors are considered when determining if a facility is eligible. The facility must be damaged as a direct result of the declared event. The damaged facility must be located within the designated disaster area. The facility must be the legal responsibility of the applicant. The facility must be in active use at the time of the disaster. The facility must not be under the authority of another federal agency to fund. Other federal agencies often include the United States Army Corps of Engineers, the Department of Agriculture — Natural Resources Conservation Service, the Federal Highway Administration, and many other federal granting agencies.

5.9 Two Types of Eligible Work

All projects fall into one of two types of work:

1. Emergency work includes debris removal and emergency protective measures. Eligible emergency work must eliminate or reduce immediate threats to life, health, safety, or improved property.

2. Permanent work includes permanent repair or restoration of eligible facilities. Examples of permanent work include roads, bridges, water control facilities, buildings, utility systems, and parks.

Again, work must be required as a result of the declared disaster event and be located within an area designated by the president.

5.9.1 Emergency Work

Emergency work consists of debris removal and/or emergency protective measures. Debris removal work must be necessary to eliminate immediate threats to life, health and safety, or eliminate immediate threats to improved property, or be performed to ensure the economic recovery of the community and provide a benefit for the community at large.
Emergency work must eliminate or reduce an immediate threat to life, public health or safety or eliminate or reduce an immediate hazard that threatens significant damage to improved public or private property. Emergency protective measures to protect property can be funded only when the benefits achieved by the measure are greater than the costs.

5.9.2 Permanent Work

Permanent work may involve repair, restoration and replacement of roads, bridges, water control facilities, buildings, vehicles, equipment, public utilities, and other facilities. Permanent work must be required as a result of the disaster event. Eligible work to perform restorations to facilities includes work necessary to repair, restore or replace damaged facilities in accordance with federal, state and local regulations. The eligible work is limited to restoring the pre-disaster design capacity and function of the facility. Applicable codes and standards must be required to be considered eligible work. Cost effective hazard mitigation measures incorporated in the repairs may be eligible work. All work must be required as a result of the disaster event.

5.10 Eligible Costs

For costs to be eligible, they must:

- Be reasonable and necessary to accomplish the eligible work
- Be for work that complies with federal, state and local laws and regulations
- Exclude insurance proceeds, salvage value, and purchase discounts, which must be deducted from otherwise eligible costs

The eligible direct costs include:

- Salaries, wages and fringe benefits for the applicant’s employees. For emergency work, only applicant overtime labor costs, including fringe benefits, are eligible.
- Materials and equipment costs are eligible, as are contract costs, including engineering and design services where appropriate.

5.11 Special Conditions

FEMA uses the phrase “special considerations” to cover regulatory and policy compliance issues related to:

- Hazard Mitigation
- Floodplains or Coastal High Hazard Areas, which are also known as Special Flood Hazard Areas
- Environmental Requirements, which include, but are not limited to, the National Environmental Policy Act, the Endangered Species Act and the Coastal Barrier Resources Act
- Historic Preservation and Cultural Resources
- Insurance

The applicant is responsible for ensuring that all special consideration issues are addressed. FEMA and the state may assemble a resource pool that can assist the applicant in all of the various special consideration areas. Failure to identify and resolve special consideration issues early in the recovery process has resulted in protracted delays in providing assistance to applicants. FEMA’s goal is to provide disaster assistance in a timely manner. Throughout the recovery process, FEMA staff will ask questions to identify and resolve special consideration issues.

5.12 Hazard Mitigation

Applicants are encouraged to consider hazard mitigation opportunities, which are defined as any cost effective measure that will reduce the potential for damage to a facility from a disaster event. Hazard mitigation under the PA Program must be directly related to the repair of disaster damage to existing facilities. These opportunities should be documented in a hazard mitigation proposal. FEMA has developed a policy to expedite the approval of hazard mitigation measures and has an identified list of the types of proposals that are pre-approved. These proposals should be discussed with your PAC.

FEMA also has the Hazard Mitigation Grant Program designed for mitigation opportunities beyond repairing facilities actually damaged by the disaster event. Your PAC can give you information on who to contact for further information on the Hazard Mitigation Grant Program.

There are distinct differences in hazard mitigation available under the PA Program and under the Hazard Mitigation Grant Program.

5.13 Funding Compliance

FEMA must ensure that its funding actions are in compliance with the National Environmental Policy Act, as well as other environmental laws, such as the Endangered Species Act, Coastal Barrier Resource Act, and Wild and Scenic Rivers Act. If the applicant wishes to repair or reconstruct a damaged facility in a manner that differs from the condition or location it was in prior to the disaster, then the PAC will work with the applicant to obtain additional project information to ensure compliance with applicable environmental laws. The applicant is responsible for identifying those projects that are intended to differ from their pre-disaster condition and for identifying any known environmental concerns. Failure to comply with environmental laws and regulations will
jeopardize federal funding on any project.

Property eligible for listing on the National Register of Historic Places requires special consideration. These properties are generally 50 years old or older. The applicant will assist the PAC in identifying these historic resources. Keep in mind that they can include buildings, bridges, roads, Native American cultural heritage sites, and archeological sites.

The state historic preservation officers are key to assisting FEMA in fulfilling its historic responsibilities defined in the National Historic Preservation Act.

FEMA public assistance is available to repair the damaged contents and equipment of eligible public and private nonprofit facilities, including cultural resources maintained within museums, libraries, and archives.

Examples of eligible cultural resources include books, paintings, photographs and statues. In such cases, FEMA’s Art Conservation Policy provides funding to restore the resources to a minimal level so they can be returned to display. When a resource is destroyed, assistance is not available through the PA Program because the resource is unique and cannot be replaced.

The applicant must identify all projects within or affecting the floodplain/wetland to the PAC for consideration of floodplain management and the protection of wetland resources.

Information on floodplain locations can be most readily obtained from your local building, planning or public works departments.

FEMA also is responsible for ensuring its intended funding actions are in compliance with the Coastal Barrier Resources Act. The applicant will assist the PAC in identifying which of their projects are located in these zones.

This information should be readily available from the local planning, public works or building departments.

The following insurance requirements apply to all projects under the PA Program:

- Applicants are required to report to FEMA any entitlement to proceeds from insurance policies or any other source for disaster damages. These proceeds must be deducted from the eligible project costs prior to approval of the project.

- As a condition of accepting PA Program funding, all applicants are required to obtain insurance coverage on all insurable facilities prior to the release of any funding. The applicant must maintain the required insurance coverage on the facility for the useful life of the repairs.

- There are additional specific requirements for flood damaged facilities located within the Special Flood Hazard Area. These requirements are related to the NFIP and are required by the Stafford Act and the Flood Disaster Protection Act of 1973.

Due to the complexities of the insurance requirements, you should discuss all insurance issues with your PAC.

Insurance Requirements: The Stafford Act requires that all insurance proceeds be deducted from the eligible costs of repairing damaged facilities before any federal funds are approved. The purchase of additional insurance coverage may be required prior to receiving federal assistance. All other eligibility requirements must be met.

All applicants that receive PA Program funding for repair or replacement of facilities are required to obtain and maintain insurance coverage for the facility.

The insurance coverage must be for the hazard that caused the disaster-related damage. This includes all types of general insurance, flood insurance for facilities located in and out of the Special Flood Hazard Area, earthquake insurance, comprehensive collision insurance or any other insurance coverage that is reasonably available, adequate and necessary.

Note: this requirement may include commercial (non-NFIP) flood insurance coverage to supplement NFIP coverage or to cover facilities uninsurable under a standard NFIP flood insurance policy.

The amount of insurance coverage required is in the minimum amount of the disaster damage to the facility. The insurance coverage must be obtained prior to the release of any approved funding. Failure to obtain the required insurance coverage within 180 days of declaration of project approval may result in loss of PA Program funding.

The insurance coverage must be maintained for the useful life of the disaster damage restoration. Failure to maintain the required insurance coverage may result in denial of all future disaster assistance for the facility.

The following requirements apply to all buildings and the contents of buildings located within the Special Flood Hazard Area.
The Flood Disaster Protection Act of 1973 requires that no federal disaster assistance be provided for any facility insurable under the NFIP if the facility is located within the Special Flood Hazard Area and the community in which the facility is located is not participating in the NFIP.

If the community is participating in the NFIP, the Stafford Act requires that any federal disaster assistance grant provided for the repair of flood disaster damaged facilities located within the Special Flood Hazard Area be reduced. The amount of the reduction shall be the maximum amount of insurance proceeds available for that facility under a standard NFIP flood insurance policy. This reduction is made even if the facility is covered by an actual flood insurance policy. The maximum proceeds available under a standard NFIP flood insurance policy or the actual insurance proceeds received are deducted, whichever is greater.

The terms “large project” and “small project” relate to the cost threshold to complete the work. This cost threshold is defined by federal legislation and is adjusted annually. For fiscal year 2001 the threshold for small projects was set at less than $50,600. All formulated projects with a total cost $50,600 or greater was a large project. Small and large projects are processed differently under the PA Program. In large projects, the state will disburse progress payments, as required.

Applicants may prepare Project Worksheets for small projects if they have the resources to do so. Otherwise, the PAC and/or project officers assigned by the PAC will assist applicants in preparing Project Worksheets.

FEMA or the state will validate 20 percent of all small projects prepared by an applicant to ensure correct eligibility and reasonable costs. If the projects meet the validation criteria, FEMA will approve all small projects for funding. If they do not, another sample of projects will be validated. Funds for small projects can be disbursed by the state following project approval.

A project officer will work with the state and applicant to develop the scope of work and cost estimate for all large projects. After FEMA approves large projects, the state will disburse funds to the applicant as work is accomplished. Final assistance will be based on the actual costs to complete the approved scope of work. The state will make payments to the applicant according to applicable state and local laws and regulations.

The applicant may decide to perform work above and beyond that which is necessary to restore a damaged facility to its pre-disaster design, capacity and function. This is called an improved project. The state must approve the project and FEMA must ensure that its environmental and historic compliance responsibilities are met prior to project approval. The grant money for the original disaster-related damage repairs can be applied toward the costs for the improved project.

The applicant may decide that the community would best be served by not restoring a damaged facility or the function of that facility. In some cases, the applicant may decide that the disaster damaged building is no longer needed and the money could best be used by expanding another building.

This option, which is available only for permanent work, must be requested formally in writing prior to alternate project approval. It is not an option for emergency work or debris removal projects. Alternate projects must be reviewed to assure environmental and historical compliance.

Note:
The FEMA Public Assistance Policy Digest can be obtained from the state or FEMA offices. It describes in detail what is eligible and how to obtain direct assistance also on the web at www.fema.gov.