Village of Mamaroneck Building Code Official/ Floodplain Administrator

Disaster Preparedness Handbook



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Cover Photo: August 2011, Hurricane Irene, Fenimore Road & Waverly Avenue. Photo by L. Garcia via Larchmont-Mamaroneck Patch				
Suggestions for improvements to this handbook are welcomed.				
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FOREWARD

In 2011, the Village of Mamaroneck was devastated by Hurricane Irene and Tropical Storm Lee. Although Irene was categorized as a tropical storm by the time it reached Mamaroneck, it brought severe damage to the Village. Over 7 inches of rainfall fell and flooded approximately 40 percent of the village, affecting approximately 3,300 homes. Irene produced both riverine flooding and tidal flooding with a storm surge over 3 feet. Trees and power lines were also downed, and wind gusts of 75-80 MPH knocked out power to approximately 4,000 customers in the Village. Flooding events are the most common disaster event for the Village of Mamaroneck; weather changes, tidal changes, river changes, and development in and around the floodplain assure us that we will continue to see flooding events – perhaps more often.

When natural disasters strike a community and cause structure damage, the local building department plays a key role. This role typically includes *Damage Assessment*, the initial phase of inspecting the damage inflicted on each structure, and *Damage Recovery*, the much longer phase during which a community rebuilds.

In these emergency situations it is important that the building department respond immediately, knowledgeably and effectively. Few other departments work as closely with citizens whose lives have been placed in turmoil. Not only must building departments perform damage assessment inspections amid the damage, it is also necessary to assist the public by effectively communicating the role the building department is performing and what citizens should do to repair and reoccupy their homes and businesses.

This Building Code Official/Floodplain Administrator Disaster Preparedness Handbook contains information, guidance and advice for the building department. The stages of a disaster are described along with information helpful in addressing the numerous dilemmas and decisions the building department will face in each phase. An overview is provided to explain how the building department's role changes as the emergency moves from phase to phase. In the Appendix are sample forms, placards, and recommended policies and procedures.

With the information, support and education offered by the NYSDOS Codes Division, NYSDEC Floodplain Division, New York State Floodplain and Stormwater Managers Association (NYSFSMA), Westchester County Office of Emergency Management, and this Disaster Preparedness Handbook, it is intended that the Village of Mamaroneck building department will more effectively assist the community in a time of critical need.

Use of this Village of Mamaroneck Building Code Official Disaster Preparedness Handbook is meant to:

- 1. Help define the role of a Building Code Official in the Local Emergency Operations Plan.
- 2. To determine the most effective and efficient method of carrying out your role and responsibility in disaster.
- 3. To identify what forms and supplies are needed before a disaster has occurred rather than during.

1. OVERVIEW OF THE DISASTER EXPERIENCE

This chapter is intended to give the reader an overview of a building department's typical role in a disaster event so that its role in each of the four phases can be understood in context of the whole. First, the phases of a disaster will be described, next the typical role and responsibilities of a building department will be explained, then various tasks and duties performed by building departments are identified, and lastly, how a response progresses is detailed.

NATIONAL PREPAREDNESS GOAL FIVE (5) MISSION AREAS

The National Preparedness Goal identified five mission areas, in which it groups 31 core capabilities, which are elements needed to achieve the goal.

- > Prevention
- > Protection
- > Response
- > Recovery
- Mitigation

PREVENTION

The Prevention mission area comprises the capabilities necessary to avoid, prevent or stop a threatened or actual act of terrorism. It is focused on ensuring we are optimally prepared to prevent an imminent terrorist attack within the United States.

PROTECTION

The Protection framework houses the capabilities necessary to secure the homeland against acts of terrorism and manmade or natural disasters. This phase is basic preparation for a disaster event. It is here where preparations made by various municipal departments (including the building department) will be most evident.

Foremost, the local building official must be knowledgeable of the department's role and responsibilities as described in the local jurisdiction's Emergency Operations Plan. This is essential.

Furthermore, the building official should be knowledgeable in how local building departments have historically responded during disaster events, what duties and tasks they have carried out,

and, how volunteer assistance is provided. To be truly effective, the building official must learn the department's responsibilities and how to effectively carry them out.

Basic Protection efforts may include:

- Having the local and County Emergency Operations Plan available (and read).
- Having the Disaster Preparedness Handbook available (and read).
- Having forms and maps stockpiled.
- Having key phone numbers updated and readily available.
- Understanding the roles of other departments and agencies.
- Knowing how to quickly obtain inspection assistance.
- Knowing how damage assessment inspections are performed.
- Being knowledgeable of insurance and liability issues.

RESPONSE

Response comprises the capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred. This phase is when a jurisdiction inspects and documents the damage caused by the disaster event.

In this phase the typical role of a building department is to send inspectors out to assess damage to structures, placard damaged buildings for occupancy worthiness, and then, to produce reports on the numbers of damaged and destroyed buildings (often a combination of national, state, county, and private agencies are also involved in assessing damage to buildings, but typically for other purposes). Because this role must be completed very quickly, additional inspection and office assistance is most often necessary, and it usually can only be obtained from other jurisdictions.

Residents impacted by a disaster event (by way of damage to their homes or businesses) must be kept informed as to the status of any restrictions on the use of their building, and, steps necessary to reconstruct and/or reoccupy.

Furthermore, the department's role documenting structure damage is critical because this documentation is necessary for the disbursement of state/federal reimbursement funding if an official disaster declaration is declared. If a Presidential disaster declaration is made, hiring of temporary help may be covered by the FEMA Public Assistance Program.

RECOVERY

Recovery comprises the core capabilities necessary to assist communities affected by an incident to recover effectively. It often begins immediately following an event and overlaps the response phase. This overlap adds to the work load and, if preparation and organization are lacking, causes even more confusion.

The building department's primary role in this phase will be performing plan review, issuing permits, inspecting repairs, and enforcing contractor licensing laws; all the while confronted with a very significant workload increase, and, opposition to code/zoning enforcement in the name of expediency. Here, the effectiveness of the building department in communicating with the affected public is critical.

This phase often lasts a year or longer and, additional paid assistance during this period is often necessary.

MITIGATION

Mitigation comprises the capabilities necessary to reduce the loss of life and property by lessening the impact of disasters. This phase is when a community evaluates the natural disaster experience and initiates changes or improvements (physical or procedural) so that less damage, and/or a more effective response, will result in future occurrences.

Here, the building department's role will largely depend on direction from the local jurisdiction's administration, however, the daily routine of reviewing plans and performing inspections will have a significant impact on the ability of structures to withstand damage from future natural disasters. It is important that buildings with substantial damage in previous events comply with current floodplain regulations. This will lessen or eliminate damages in the future.

The Village of Mamaroneck Village Manager serves as the Local Mitigation Officer. To discuss potential mitigation strategies, please contact this office.

2. ROLES & RESPONSIBILITIES OF THE BUILDING CODE OFFICIAL IN DISASTER

The Village of Mamaroneck Emergency Operations Plan takes precedence. It typically spells out the role of the building department. However, sometimes these plans are very general and lack specifics.

Typically, the building department's role and responsibilities will include:

- Inspect each damaged structure; placard for habitability and complete a damage report.
- Coordinate with Village of Mamaroneck Emergency Operations Center.
- Maintain accurate records of all damaged structures.
- Create maps identifying damaged structures.
- Obtain inspection/office assistance if necessary.
- Report to supervisor (if different from one's normal supervisor).

Often, the difficulty is of knowing ahead of time what is involved in carrying out and completing these responsibilities. The building official will be asked:

- What are the department's immediate goals and objectives?
- How will the department accomplish them?
- How will all buildings be inspected, and, within what time frame?
- Will outside assistance be necessary?
 - o How many?
 - o From where?
 - o Are they paid?
 - o How soon will they arrive?
 - Are there supplies for them?
 - Who will supervise them?
- How are insurance and liability issues handled?
- How will policy and procedural issues be handled?
 - Will there be extended office hours?
 - Will the building official remain in the office to oversee operations and make decisions, assigning an assistant to organize inspections?
 - o Who will conduct orientations for assisting inspectors and what will it include?
 - Will dollar valuations be assigned to damage assessment reports?
 - What are the right-of-entry parameters for inspectors?
 - Who will have authority to order dangerous buildings demolished?
 - What information will inspectors give residents at inspections?
 - Will permit fees remain or will they be waived?

- o For what work will permits be required, for what work will plan reviews be required, and, how long will plan reviews take?
- How best to inform citizens of required permits for repairs, and about contractor licensing requirements?
- Will assisting inspectors have authority to stop work where there is no permit, or, where unlicensed contractors are working?
 - At what point will a structural review by an engineer be required?

The building official will be expected to know what to do, and to have answers to these questions. Your response should be:

- This is how a typical response progresses...
- These are some of the issues and situations that will arise...
- These are some decisions the building department and local officials will be faced with in the next few hours and days...
- And finally, this is how the building department will accomplish its goals and objectives...

Each building official should have an overall understanding of a disaster response, an understanding of its department's role in a disaster, access to outside resources and minimal supplies and forms on hand.

3. PREPARING FOR RESPONSE

Building department staff will be interacting with distraught citizens for a long time. These citizens, as well as the local officials, will be demanding an organized and well run disaster response by the building department.

It is recommended that the building department initiates minimum preparations and training to better prepare it's department to respond to disaster events which can have significant and devastating effect on many of the citizens in the community.

In an organized response you set goals, objectives, policies and procedures so that all staff understands their part of the puzzle and the public is given accurate and consistent information.

As many Building Code Officials work for multiple jurisdictions, when damage is widespread, it is often typical to need assistance during the first several weeks. It is recommended that BCO's develop Mutual Aid Agreements with other Building Code Officials in the county that may be able to offer assistance and are familiar with the general area. As the public official for your jurisdiction, you retain all formal authority for Building Code Official responsibilities. Volunteers assisting will report to you and must follow your direction. Even if you may not need assistance conducting inspections, having someone assist with paperwork, public information handouts, and other administrative duties is recommended.

In the event of a Presidential declared disaster, temporary hires may be eligible for reimbursement under the Public Assistance Program.

Following are some of the typical tasks and duties a building department might initiate following a disaster event:

- ➤ Determine the Scope of Damage
 - The purpose is to identify the overall area of damage and to determine approximately how many structures must be inspected.
 - Ask police or fire which neighborhoods or areas have been damaged.
 - Conduct a "windshield survey" by driving through your jurisdiction and noting areas with damaged buildings.
 - Report areas with estimated damages to the Village of Mamaroneck's Emergency Coordinator or directly with Westchester County Department of Emergency Services
 Office of Emergency Management.
- ➤ Plan Response (Damage Assessment & Recovery)
 - Set goals and objectives.
 - Create/obtain necessary forms (damage assessment reports, placard, etc).
 - Create a file for each damaged property.

- Create maps for inspectors and record damaged areas.
- > Determine Need for Assistance
 - The need for assistance is based on Scope of Damage
 - Could include inspection assistance, office/administrative assistance for phones, permit issuance, inspection recording, etc.
- Prepare for Additional Office and Field Staff
 - Have copies of policies and procedures for distribution to all staff.
 - Create inspector packets (containing maps, forms, pens, tape, etc).
 - Decide on tasks for temporary workers.
- ➤ Determine Policy & Procedures (Damage Assessment & Recovery)
 - Communication (Public & Local/County)
 - Damage Assessment Guidelines
 - Office Hours & Organization
 - Permit Process & Fees
 - Inspection Process & Unpermitted Work
 - Utility Reconnection

A. FIRST STEP: DETERMINE SCOPE OF DAMAGE

Damage assessment for building departments usually begins with a preliminary report from the police or fire department as to the area of damage. A 'windshield survey' is then conducted by the building department to identify those areas requiring damage assessments and approximately how many structures must be visited. It is recommended to inspect buildings beyond the perimeter of obvious damage, as often damage is not readily apparent.

Most often the local building department is relied on to quickly compile a count of damaged structures and relay that information to the Westchester County Office of Emergency Management to determine if state or federal assistance is needed.

Once you determine the Scope of Damage, you will be able to determine if you will need additional assistance to help conduct Rapid and Detailed Assessments, if you might need Administrative Assistance, or if you can handle the work on your own. Phone calls, counter calls, permits and plan reviews will multiply.

B. NEXT STEP: PLAN YOUR RESPONSE

In consultation with the building official's supervisor, specific goals and objectives should be immediately decided, or preferably, decided ahead of time.

SETTING GOALS/OBJECTIVES

SAMPLE GOALS

- Complete a damage assessment report and placard each structure within three days.
- Document inspection reports and placards used for each structure and report this information to supervisor. Also, map all damaged structures by placard status.
- Maintain communications with emergency coordinator (through supervisor) to verify any additional responsibilities due to state or federal declarations. You may be asked to host the Preliminary Damage Assessment team if the county is seeking a Presidential disaster declaration.
- Open communication channels with the public regarding placards, inspections and permits. (Many complaints, following an event, revolve around the affected property owner not being kept informed as to steps necessary to rebuild and/or reoccupy the structure and, thereby causing delays).

SAMPLE OBJECTIVES

- Determine if outside assistance will be required in the field or office and acquire if necessary. (Mutual aid may be obtained through direct contact with Building Code Officials within the county; however, state CEDAR teams must be obtained through the Westchester County Office of Emergency Management.)
- Set up files to document all assessed structures, additional personnel, hours worked, inspections performed, permits issued and expenses incurred.
- Create a color coded map of assessed properties based on placards posted (this map will change frequently and, be in high demand from other departments and agencies).
- Create copies of forms and applications to be used (see Appendix)
- Have copies of various forms and applications needed. (See samples in Appendix).
- Maintain accurate documentation of damage assessment reports, individuals, hours worked, expenses, vehicles driven, etc. is critical following disaster events in order for potential reimbursement funding (to both the jurisdiction and property owners) from state and federal agencies (if a declaration is made).

C. DETERMINE NEED FOR ADDITIONAL ASSISTANCE

If your municipality suffered damages, you will need to determine if you will need additional assistance to effectively complete the responsibilities of the Building Code department. The following types of assistance have proven effective:

- Other municipal staff can be re-assigned to assist with office/administrative duties.
- Volunteers from the community can be utilized to assist with office/administrative duties.
- Temporary hires can be utilized to assist with office/administrative duties.
- Nearby (non-affected) communities Building Code Officials can be utilized to assist with Rapid Assessment and/or Detailed Assessments.
- NYS CEDAR teams can be utilized to assist with Rapid Assessment and/or Detailed Assessments.

Contact the Westchester County Office of Emergency Management to request assistance outside of your jurisdiction.

D. PREPARE FOR ADDITIONAL STAFF & DETERMINE POLICY/PROCEDURES

The building official, prior to inspections commencing, should give an orientation to all staff. Volunteer inspectors should be given an overview of the municipality and briefed on any pertinent policies/priorities. The documentation of damage, public information handouts and record-keeping procedures should be discussed. Priority inspection sites should be identified. Also, it should be determined what constitutes levels of damage on buildings. This is a significant action that should be carefully thought through and then uniformly enforced.

Decide policy on a number of issues and write them out so that information given out by staff is accurate and consistent:

- How often to meet/report to supervisor and the Village of Mamaroneck Emergency Operations Center? Managers.
- What additional information will the field inspector give to the owner or post when placing a placard on structure?
- What is the Policy on determining Substantial Damage? 50%.
- How will dollar valuation of structures be determined (for substantial damage)? -Existing records.
- What authority will you restrict from field inspectors or office staff (for example: stopping work on a job should be left to the local building official making

exceptions on how the structures are placarded, demolition permits or permits issued on existing nonconforming uses should be reviewed by the local building official before issuance)? - Full-time staff has authority as normal.

- Will you Extend Office Hours? Depends on the severity of storm.
- If the office is not open, how can someone contact you? 9 to 9 Access #.
- Will permits be charged for or will they be free? Board Resolution.
- For what work will a permit be required? All.
- Where can owners obtain permit applications? Online or at Building Department.
- When will a plan review be required and how long will it take to obtain? Depends on project scope/size.
- What happens when someone completes work without a permit? -Must legalize and certify.
- What is the Utility reconnection process (utilities operate differently everywhere it must be coordinated with utility companies to determine how reconnections will occur)? Reconnection will be coordinated with Con Edison.

Communication with the public is critical. They will have many questions for you; you should determine the answers to these questions before conducting damage assessments. In addition to the placard, it is recommended that the following be prepared and given to the owner or posted (see sample in Appendix):

- A statement as to the purpose of damage assessment inspections and placard.
- A copy of the damage assessment report.
- What is Substantial Damage, and how is it determined.
- When a permit may or may not be required.
- How and where to obtain a permit.
- Building department office hours.
- Phone numbers of local offices, utility companies, Red Cross, tree removal service and debris haulers.
- When a licensed contractor is required and the protections afforded the property owner.
- Advice on finding reputable contractors and avoiding scams.
- Debris Removal Policy of the Municipality DPW.
- Any other handouts as appropriate (example: mitigation publications).

4. CONDUCTING DAMAGE ASSESSMENTS

The primary focus of damage assessment is to placard those structures that could pose lifethreatening consequences on the inhabitants. The secondary focus is to perform damage assessment inspections on each and document the findings.

The building department's role, typically, will be to assess the damage inflicted on structures, evaluate occupancy worthiness, and, document and report this information to the assigned authority. In a major disaster, there is often a combination of state, county, town/village and private agencies assessing overall area damage. Although this may seem counter-productive, different levels of government (and agencies) have different information needs when it comes to damage assessments, so several agencies may be inspecting damages at the same time.

The building official should understand that property owners impacted by way of damage to their homes and businesses need to be kept informed as to the status of restrictions on their buildings and any steps necessary to reoccupy and/or rebuild. You will be the primary point of contact for many as owners attempt to understand the confusing process of insurance and regulations while being emotionally distraught.

The Response/Damage Assessment Phase is understandably intense. It is better to be prepared and act, rather than simply react to events. Also, it must be understood that the Recovery Phase begins almost immediately – during the Damage Assessment Phase! Both phases must be dealt with simultaneously.

Following are some of the typical tasks and duties a building department are is responsible for while conducting damage assessments:

- ➤ Plan and Conduct Rapid Evaluations and Detailed Evaluations.
- Posting placard on inspected buildings.
- ➤ Documentation of inspections progress should be shared with the Local Emergency Coordinator.
- > Substantial Damage determinations must be documented for buildings in the floodplain that may be required to conform to current floodplain regulations.
- Permits to repair damaged structures flood in. Applicants want permits issued without delay so that repair work can begin.
- ➤ Inspection of work completed; re-inspection of work.
- Regular non-disaster work, including plan reviews and inspections, continues.

The work load stays very high as the Disaster Response Phase moves more and more into the Recovery/Reconstruction Phase.

The following considerations should be taken into account when inspecting a damaged structure:

- ➤ Right of entry Rapid Evaluation can be completed without entering the building; however, Detailed Evaluation must have owner permission.
- Are power lines down or is gas escaping? Unsafe conditions should be reported to 911.
- ➤ Is the structure displaced from its foundation, twisted, leaning or bowed? This is usually an indication of major damage.
- Make exterior observations first, and then proceed to the interior (using the damage assessment report form). It is suggested to use a specific pattern for inspections, i.e. begin in the basement and then work upwards using a clockwise movement while going through all rooms on all levels. If you use the same pattern on all structures, you are less likely to miss something.
- ➤ Is it safe to enter? If in danger of collapse it should be inspected from the outside only.
- ➤ There may be spray painted markings on buildings from Search and Rescue groups who have searched buildings. This does not indicate the level of damage to a building.
- ➤ Different inspectors will provide strikingly different levels of detail in their documentation. They should be instructed as to the level of detail required (a sample completed form is in the Appendix).
- ➤ Of particular importance are utility re-hookups. Procedures will differ depending on location but should be coordinated with the utility companies and the electrical inspector. Procedures should be written down and given to all staff and affected property owners.
- ➤ Placards should be posted (with tape) to be visible from the street, near entrances.
- ➤ Consider giving each inspection team a camera (one time use 35 mm or digital). Take at least one picture of the structure (and one of the placard to identify the structure) documents the building condition at the time of the event. This additional documentation can be invaluable later on (after repairs have been made to the structure) for purposes of reimbursement funding. State and federal agencies will require documentation of a structure's damaged condition prior to releasing funds.
- ➤ Office debriefings should occur daily to determine progress, identify and resolve problems and coordinate future inspections.
- ➤ Daily inspection results should be entered onto the damage assessment map and into appropriate files. Timecards should also be collected daily from volunteer staff and filed. Expenses should be recorded daily.

A. PLACARDING CATEGORIES

Placarding a structure means to post a placard which identifies its occupancy worthiness (habitability). Performing a damage assessment inspection identifies its level of damage. They are usually both performed during one inspection.

- INSPECTED: No Apparent Hazard Found (GREEN placard)
 - o Repairs may be required
 - o Original lateral-load capacity not significantly decreased
 - No restriction on use or occupancy
- RESTRICTED USE: Hazardous Condition Exists/Potentially Exists (YELLOW placard)
 - Hazardous condition requires restrictions on the occupancy or use of the structure
 - o Entry and use are restricted as indicated on the placard
 - o For commercial structures, entry by the public may not be permitted
- UNSAFE: Extreme Hazard Present (RED placard)
 - o Imminent risk of further damage or collapse
 - Unsafe for occupancy or entry, except as authorized by the Authority Having Jurisdiction
 - o Posting a building UNSAFE is not a demolition order
 - An UNSAFE posting does NOT mean a structure is substantially damaged

It is recommended that two inspectors perform placarding/damage assessments together. If possible, assisting inspectors should be teamed with inspectors of the affected jurisdiction. The combined experience and familiarity with the area can help the assessment process. If occupants are present during an inspection, one inspector can perform the assessment while the other answers questions. An additional benefit to working in teams is safety - inspectors can look out for each other while working in damaged buildings.

B. RAPID ASSESSMENT

After a "Windshield Survey" is used to determine damage areas and preliminary number of buildings affected, you should conduct a Rapid Evaluation to determine extent of damages on each building.

The Rapid Evaluation is the first, if not only, safety evaluation performed after disaster. It is often cursory in nature, and designed to quickly designate the apparent safety of structures. The Applied Technology Council ATC-45 method of evaluation should be used.

- It should be noted that while often the damage level and placard categories do correlate, sometimes they do not (for example a shopping mall undamaged but without power for smoke evacuation would have no physical damage but be placarded as uninhabitable).
- When doubt exists as to the proper posting, the Inspection team should post it according to their best judgment and request a Detailed Evaluation (discussed next).
- A Rapid Evaluation will typically be based on the exterior conditions, unless there is a known problem or the structure cannot be adequately viewed from the exterior.
- If the observed damage is too great to allow continuous occupancy, but is not sufficient to bar all entry, it should be posted RESTRICTED USE, and be given a subsequent Detailed Evaluation.

RAPID EVALUATION PROCEDURE, utilizing the ATC-45 Rapid Evaluation Form

- > Step 1: Examine the entire outside of the building
 - Pay special attention to the roof and loss of exterior doors and windows in the case of possible wind damage
- > Step 2: Examine the ground for signs of soil movement, sedimentation, erosion, scour, slope failure, potential ground movement or any evidence of foundation displacement.
- > Step 3: Ordinarily enter a building only when the structure cannot be viewed sufficiently from the outside or when there is a suspected or reported problem.
 - Do not enter obviously unsafe structures
- > Step 4: Evaluate the structure using the criteria listed on the form
 - Complete the Rapid Evaluation Assessment Form
 - Doubtful buildings should be slated for Detailed Evaluation
 - Fill out "Further Actions" on Evaluation Form to indicate if a Detailed Evaluation or Substantial Damage Determination should be conducted
- > Step 5: Post the structure using one of the three placards
 - Indicate whether the inspection included "exterior" or "exterior and interior"
 - Post EVERY entrance to a building classified RESTRICTED USE or UNSAFE (except single family dwellings)
- > Step 6: Explain the significance of RESTRICTED USE or UNSAFE postings to building occupants

C. DETAILED ASSESSMENT

DETAILED EVALUATION PROCEDURE, utilizing the ATC-45 Detailed Evaluation Form

- > Step 1: Survey Building from Outside
 - Look for signs of roof uplift
 - Look for signs of foundation movement
 - Look for visible signs of connection failure (gaps, cracks, vertical discontinuities)
 - Look at non-structural elements
 - Look for signs of water level at flooding events
- ➤ Step 2: Examine site for Geotechnical Hazards
 - Slope failure
 - Sink Holes
 - Risk may extend outside of a single building
- > Step 3: Inspect Structural System from Inside
 - DO NOT ENTER AN OBVIOUSLY UNSAFE STRUCTURE
 - Look above ceiling panels, expose as much as you can
 - Examine vertical and lateral load carrying system
 - Examine every floor
- > Step 4: Inspect for Non-Structural Hazards
 - Look for signs of damage to partitions, finishes, utilities
 - Look for spills or leaks of chemicals
 - Don't restart electrical system, elevators, etc.
 - If building was inundated, make sure power is secured, and building marked unsafe until electrical system can be inspected
- ➤ Step 5: Complete Checklist and Post Building
 - Mark estimated damage
 - o Ballpark, not precise
 - o Not meant to require significant extra work
 - Complete Checklist
 - Post Structure
 - o Make sure any restrictions are clear
 - Communicate to occupants if present

D. INDIVIDUAL ASSISTANCE JOINT PRELIMINARY DAMAGE ASSESSMENTS (PDA)

The building official should be aware that the FEMA and NYS Office of Emergency Management Preliminary Damage Assessment utilizes a separate damage and impact assessment form as a tool to determine the extent of damages so that a decision can be made on whether or not to request federal and state financial assistance. This form reports damage on many more listings than just buildings (bridges and roads for example). It should be noted that the inspection criteria and classifications listed on these forms are similar to forms shown elsewhere in this handbook. The team may ask for a copy of your reports for reference.

"Declaration Process - The Emergency Response Process"

Local emergency and public works personnel, volunteers, humanitarian organizations, and other private interest groups provide emergency assistance required to protect the public's health and safety and to meet immediate human needs.

If necessary, a governor can declare a state of emergency and invoke the state's emergency plan to augment individual and public resources as required.

A governor may determine, after consulting with local government officials, that the recovery appears to be beyond the combined resources of both the state and local governments and that federal assistance may be needed. In requesting supplemental Federal assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5206 (Stafford Act), the Governor must certify that the severity and magnitude of the disaster exceed state and local capabilities; certify that Federal assistance is necessary to supplement the efforts and available resources of the state and local governments, disaster relief organizations, and compensation by insurance for disaster related losses; confirm execution of the state's emergency plan; and certify adherence to cost sharing requirements.

Under the declaration process and to assist a governor to determine if a request for assistance should be made, a preliminary damage assessment is conducted. These assessments are conducted in counties affected by the disaster event. The Federal Emergency Management Agency (FEMA) works with the State's emergency management agency to accomplish these assessments.

The Preliminary Damage Assessment

This preliminary damage assessment team is comprised of personnel from FEMA, the State's emergency management agency, county and local officials and the U.S. Small Business Administration (SBA). The team's work begins with reviewing the types of damage or emergency costs incurred by the units of government, and the impact to critical facilities, such as public utilities, hospitals, schools, and fire and police departments. They will also

look at the effect on individuals and businesses, including the number damaged, the number of people displaced, and the threat to health and safety caused by the storm event. Additional data from the Red Cross or other local voluntary agencies may also be reviewed. During the assessment the team will collect estimates of the expenses and damages.

This information can then be used by the Governor to support a declaration request - showing the cost of response efforts, such as emergency personnel overtime, other emergency services, and damage to citizens, is beyond state and local recovery capabilities. The information gathered during the assessment will help the Governor certify that the damage exceeds state and local resources.

The Declaration Process

As set forth in the Stafford Act, a governor seeks a presidential declaration by submitting a written request to the President through the FEMA regional office. In this request the Governor certifies that the combined local, county and state resources are insufficient and that the situation is beyond their recovery capabilities. Following a FEMA regional and national office review of the request and the findings of the preliminary damage assessment, FEMA provides the President an analysis of the situation and a recommended course of action.

Criteria Used By FEMA

The federal disaster law restricts the use of arithmetical formulas or other objective standards as the sole basis for determining the need for federal supplemental aid. As a result, FEMA assesses a number of factors to determine the severity, magnitude and impact of a disaster event. In evaluating a Governor's request for a major disaster declaration, a number of primary factors, along with other relevant information, are considered in developing a recommendation to the President for supplemental disaster assistance. Primary factors considered include:

- Amount and type of damage (number of homes destroyed or with major damage);
- Impact on the infrastructure of affected areas or critical facilities;
- Imminent threats to public health and safety;
- Impacts to essential government services and functions;
- Dispersion or concentration of damage;
- Level of insurance coverage in place for homeowners and public facilities;
- Available assistance from other sources (Federal, State, local, voluntary organizations);
- State and local resource commitments from previous, undeclared events
- Frequency of disaster events over recent time period.

The very nature of disasters-their unique circumstances, the unexpected timing, and varied impacts-precludes a complete listing of factors considered when evaluating disaster declaration requests. However, the above lists most primary considerations.

Source: FEMA, Last Updated: 06/13/2012 - 15:36

E. COMMUNICATING DAMAGE ASSESSMENT INFO TO PUBLIC

All staff should be aware that communicating information to affected property owners, whether over the counter or at the inspection, is a critical function of the department. Owners will want the damage to their properties repaired immediately. They will want to know what restrictions the placard places on their structure, what the damage report identifies and, what steps they must take to begin repairs and/or reoccupy.

It is here that conveying information to affected property owners, through handouts, can significantly reduce confusion, frustration and confrontation, and, speed the recovery process. As stated previously, written policies and public handouts should be created immediately, given to inspectors, and made available at a general assistance location or be available at a centrally known location. (See examples in Appendix Chapter).

5. PREPARING FOR RECOVERY

The Recovery Phase, as it relates to the building department, is when a community repairs and reoccupies damaged structures following a disaster event. This phase will begin almost immediately (before the damage assessment phase is completed) and must be dealt with in tandem with Phase II - Damage Assessment. Recovery, however, will often last for up to a year or more as the community rebuilds. The building department will likely be faced with a significant work load increase during this period, and, if state and/or federal disaster declarations have occurred, additional work in the form of re-inspections and providing documentation will be necessary. Also, as volunteer assisting inspectors leave, paid assistance often becomes necessary. Therefore, although it is very difficult, decisions affecting the Recovery phase should be made relatively quickly and in conjunction with the Damage Assessment phase as both phases overlap.

It must be understood that the Recovery phase begins immediately and must be dealt with in tandem with the Damage Assessment phase.

The most important aspect of the recovery phase is COMMUNICATION. Communication with staff, communication with the emergency coordinator (and/or Town Supervisor, Village Mayor), and communication with the public is CRITICAL. This phase can last years, and adequate staffing levels are important.

- A significant increase in office work results as phone calls increase, permit issuances increase, plan reviews increase, documentation increases and requests for report summaries and updated maps continue.
- As unpermitted repairs are discovered and stop work orders are issued, frustrated and angry homeowners must be dealt with.
- ➤ Demolition of buildings will be ordered (or requested) and permits must be coordinated for removal of hazardous materials.
- ➤ Substantial damage determinations must be completed (potential +50% damage).
- > The reconnection of utilities must be coordinated so all parties are aware of reconnection procedures and restrictions.
- ➤ While critical, documentation of structure damage and labor expenses are very time consuming; however any disaster-caused damage must be identified as such. This could be very important for future reimbursement funding.
- The Response/Damage Assessment and the Recovery/Reconstruction Phases will run in tandem and while damage assessment work tapers off relatively quickly the Recovery/Reconstruction Phase continues on often for up to a year or more.

A. PLAN YOUR RECOVERY

As with planning for Response, specific goals and objectives should be immediately decided, or preferably, decided ahead of time, in consultation with the building official's supervisor.

SETTING GOALS/OBJECTIVES

SAMPLE GOALS

- Issuing permits, performing inspections and documenting work without delays to the public. (This can be more difficult than it first appears due to the significant work load increase.)
- Assist the affected public through effective communication. (The rebuilding process will be confusing to the public and contractors. Effective communication can greatly speed the recovery process.)

SAMPLE OBJECTIVES

- Determine if outside assistance will be required in the field or office and acquire if necessary.
- Set up files to document all assessed structures, additional personnel, hours worked, inspections performed, permits issued and expenses incurred.
- Create copies of forms and applications to be used (see Appendix)
- Have copies of various forms and applications needed. (See samples in Appendix).
- Maintain accurate documentation of substantial damage determinations, building permit applications and inspections.

B. DETERMINE NEED FOR ADDITIONAL ASSISTANCE

You will need to determine if you will need additional assistance to effectively complete the responsibilities of the Building Code department during recovery. The following types of assistance have proven effective:

- Other municipal staff can be re-assigned to assist with office/administrative duties.
- Volunteers from the community can be utilized to assist with office/administrative duties.
- Temporary hires can be utilized to assist with office/administrative duties.
- Nearby (non-affected) communities Building Code Officials can be utilized to assist with Inspections.

C. PREPARE FOR ADDITIONAL STAFF

The building official, prior to inspections commencing, should give an orientation to all staff. Volunteer inspectors should be given an overview of the municipality and briefed on any pertinent policies/priorities. The documentation of substantial damage determinations, inspection reports and record-keeping procedures should be discussed.

D. DETERMINE POLICY/PROCEDURES

Decide policy on a number of issues and write them out so that information given out by staff is accurate and consistent:

➤ OFFICE POLICY

- How often to meet/report to supervisor?
- What authority will you restrict from field inspectors or office staff (for example: stopping work on a job should be left to the local building official making exceptions on how the structures are placarded, demolition permits or permits issued on existing nonconforming uses should be reviewed by the local building official before issuance)?
- Will you Extend Office Hours?
- If the office is not open, how can someone contact you?

PERMITS & PLAN REVIEW

- What is the Policy on determining Substantial Damage?
- How will dollar valuation of structures be determined (for substantial damage)?
- Will permits be charged for or will they be free?
- For what work will a permit be required?
- Where can owners obtain permit applications?
- When will a plan review be required and how long will it take to obtain?
- Will Building permits for emergency repairs to allow habitability be handled differently than standard building permits?
- If buildings are being repaired to pre-disaster condition, will plans be required? (Or only for buildings that will be changed?)
- Will certain permits be issued in the field by inspectors such as reroofing or residing?
- Will repair work be allowed to begin immediately with a permit obtained later? (Or will you issue stop-work orders?)

> DEMOLITION

 Under what conditions must a structure be demolished and by whose authority?

➤ INSPECTIONS & UNPERMITTED WORK

- How are inspections conducted?
- What happens when someone completes work without a permit?
- How will zoning and engineering issues such as non-conforming uses or utility repairs be verified and coordinated into the permit process?

UTILITY RECONNECTION

• What is the Utility reconnection process (utilities operate differently everywhere – it must be coordinated with utility companies to determine how reconnections will occur)? - Coordinate with Con Edison.

Many other decisions regarding policy issues will be necessary as each event and jurisdiction is unique. It is critical to document decisions and distribute information to minimize confusion and frustration.

Keep in mind – Floodplain Regulations MUST be followed. Ease of rebuilding and lack of finances do not necessitate a waiver of Regulations.

E. COMMUNICATION

Communication with the public is critical.

They will have many questions for you; you should determine the answers to these questions so you can uniformly complete your job and don't cause additional delays in the recovery process.

People's emotions will be charged and with each perceived delay, confusion and frustration will result. Communication with affected property owners and contractors is a critical function for the recovery process to be successful. Handouts given to the public during the damage assessment phase should also include information on recovery. (See Appendix)

It is Okay to tell owners, "I don't know". Better to find the correct answer to a question rather than giving false information. Offer to get back to the owner with the answer.

F. SUBSTANTIAL DAMAGE

It is recommended that the Building Code Official utilize FEMA's publication "Substantial Improvement/ Substantial Damage Desk Reference" (FEMA P-758, dated 5/2010).

The Village of Mamaroneck participates in the NFIP. Therefore local officials must determine whether proposed work qualifies as a substantial improvement or repair of substantial damage (referred to as an "SI/SD determination").

If work on buildings constitutes SI/SD, then structures must be brought into compliance with NFIP requirements for new construction, including the requirement that lowest floors be elevated to or above the base flood elevation (BFE). Meeting this requirement can also be accomplished by demolition followed by construction of new buildings that meet the NFIP requirements on the same sites or by relocating buildings to locations outside of the Special Flood Hazard Area (SFHA). In some cases after a disaster, communities have worked with owners to buy damaged homes in order to demolish the buildings and preserve the land as open space. The NFIP defines SI/SD as follows:

- Substantial improvement (SI) means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure (or smaller percentage if established by the community) before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage", regardless of the actual repair work performed.
- ➤ Substantial damage (SD) means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. Work on structures that are determined to be substantially damaged is considered to be substantial improvement, regardless of the actual repair work performed.

6. BUILDING CODE OFFICIAL ROLE IN MITIGATION

Disaster mitigation is when a community evaluates the natural disaster experience and initiates changes or improvements (physical or procedural) so that less damage or a more effective response will result in a future occurrence.

Many of the mitigation efforts a community will undertake will be beyond the scope and involvement of the building official. Improvements of this nature typically include enhancements to the public infrastructure to ensure continued public services during an emergency. However, mitigation efforts by the building department after an occurrence can have a significant impact. Mitigation efforts of this type may include:

- Discussions among inspectors and support staff as to what worked, what did not, and then revising procedures, policies, handouts and forms.
- Discussions with citizens impacted by the disaster occurrence in order to better
 understand the problems and difficulties they faced (both immediately after the
 occurrence and in the longer recovery phase) so that the public's interaction with the
 building department can be improved.
- Discussions with other area building departments to compare and share knowledge, experiences and other mitigation efforts.
- Meetings with other area Building Officials to discuss assistance prior to occurrences.
- Sending staff to educational opportunities on the subject of natural disasters. Also allowing staff to assist other jurisdictions struck by natural disasters is an excellent, low cost, educational tool.
- More vigorous plan review and inspection of those structural aspects of construction that experienced damage during the occurrence (i.e. component failures).
- Developing a disaster response plan for the building staff, tailored to the community, to function in tandem with the community's Emergency Management Plan.

The Village of Mamaroneck Village Manager serves as the Mitigation Officer. You should discuss concerns and suggestions with the Mitigation Officer to determine homes and businesses that may wish to be considered for Mitigation Grant funding. Although there are several different grant sources, generally speaking, the homeowner/business owner will need to contribute a 25% cost share for projects.

Westchester County has developed a Hazard Mitigation Plan, of which the Village of Mamaroneck has a jurisdictional annex. The annex outlines the mitigation efforts the Village may wish to pursue as funds become available.

7. FLOODING EVENTS

The majority of the Village of Mamaroneck's disasters are due to flooding. It is important to have a basic understanding of our watershed located in the Village.

A. VILLAGE OF MAMARONECK INFORMATION

The Village of Mamaroneck is situated immediately adjacent to the Long Island Sound. The village terrain slopes upward from Long Island Sound on the east and ranges from sea level at the Mamaroneck Harbor to 50 feet above sea level in the west central part of the Village. Elevations range from 300 feet on the western boundary to 10 to 15 feet at the shores of Long Island Sound. The Mamaroneck River which runs north to south through the area, contributes to frequent flooding. Drainage from the Village flows mostly into the harbor and then into the Sound.

The majority of the Village is located in designated flood zones according to the Village Flood Insurance Rate Maps and Flood Insurance Study. Accordingly, the Village is prone to, and, has experienced serious flooding problems over the years.

The Village of Mamaroneck is a low lying shoreline community that is criss-crossed by a number of rivers and streams, thus making it susceptible to flooding from a variety of sources. Floods in the Village have been caused by hurricanes, coastal storms, windstorms, thunderstorms and melting snow and ice. Notable events that caused major damage were from Tropical Storms Floyd and Ernesto, the Nor'Easter of 2007, and more recently, Tropical Storms Irene and Lee in August 2011. Based on the past frequency of flooding, the probability of future floods is very high. The Mamaroneck and Sheldrake rivers flow through the Village. The neighborhoods of Orienta, Shore Acres, and Washingtonville, and the industrial section lie directly within the 100 year floodplain and coastal flood zones. Even larger area is in the 500 year floodplain. Critical flooding occurs in these areas. The Village lies at the bottom of the Mamaroneck River, the Sheldrake River, and Beaver Swamp Brook, thus these areas are often subject to flooding. These areas are also at high risk for personal safety, personal property damage, and severe damage to infrastructures such as utilities, storm and sanitary sewer lines and roads.

Three dams are located immediately upstream of the Village of Mamaroneck:

The Larchmont Dam (Sheldrake Lake on the Sheldrake River) is located on the New Rochelle city line and is owned by the Village Larchmont but operated by the Town of Mamaroneck. This was a former Larchmont Water Company supply. Failure of the dam would have severe consequences in Mamaroneck. Inundation mapping and an EAP were completed for this dam in 2010. The Village of Mamaroneck would like the town to install a larger valve in the dam so it can be lowered more quickly prior to predicted rain and flood events, thus improving opportunities to mitigate and reduce future risks from flooding. Given the three municipalities involved, it may be relatively complex to pursue this mitigation strategy.

Larchmont Dam #2 (Goodliffe Pond on the Sheldrake River) is located immediately downstream of the Sheldrake Lake. This was a former Larchmont Water Company supply. Failure of the dam would have severe consequences in Mamaroneck. Inundation mapping and an EAP were completed for this dam in 2010.

The Mamaroneck Dam (Mamaroneck Reservoir on the Mamaroneck River) impounds the former Mamaroneck Water Works supply. This is a Class C hazard dam, but Village personnel believe the actual hazard may be lower. The water supply is inactive, and the dam is believed to provide protection from the 10-year storm. The Army Corps of Engineers believes that it might provide protection from storms by preventing larger debris such as logs and trees from getting washed downstream and causing projectile damage. However, the EAP for the dam does not demonstrate that higher protection is provided.

B. HISTORICAL FLOOD DATA

NYS has the 2nd largest number of Major Disaster and Emergency Declarations in tracked history of the United States (1954-2013). Westchester County has been a part of several of these declarations for both Public Assistance (roads, bridges, and infrastructure) and Individual Assistance (business & individuals).

The most notable declarations were:

Hurricane Irene, declared in August, 2011 Nor'Easter, declared in April, 2007

C. NATIONAL FLOOD INSURANCE PROGRAM (NFIP) OVERVIEW

The NFIP is a Federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. The Village of Mamaroneck participates in this program.

In support of the NFIP, FEMA identifies flood hazard areas throughout the US by producing Flood Hazard Boundary Maps (FHBMs), Flood Insurance Rate Maps (FIRMs), and Flood

Boundary and Floodway Maps (FBFMs). Several areas of flood hazard are commonly identified on these maps. One of these areas is the Special Flood Hazard Area (SFHA), a high-risk area defined as any land that would be inundated by a flood having a 1% chance of occurring in any given year (also referred to as the base flood).

- When you hear "100 year" flood, remember we're talking about the 1% chance of flood.
- Picture a bag with a hundred marbles with only one being a different color. Every time it begins to rain reach your hand inside the bag and choose a marble. If you get the odd colored marble, that would be same chance of having a 1% flooding event.
- This is why so many citizens are often confused when they experience a "100 year" flood event more than once in the life of their mortgage. A "100 year" event has a 26% chance of happening over the course of a 30 year mortgage.

The high-risk-area standard constitutes a reasonable compromise between the need for building restrictions to minimize potential loss of life and property and the economic benefits to be derived from floodplain development. Development may take place within the SFHA, provided that development complies with local floodplain management ordinances, which must meet the minimum Federal requirements. The Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 mandate the purchase of flood insurance as a condition of Federal or Federally related financial assistance for acquisition and/or construction of buildings in SFHAs of any community. The purchase of flood insurance on a voluntary basis is frequently prudent even outside of SFHAs.

Communities are required to adopt and enforce a floodplain management ordinance that meets minimum NFIP requirements. Communities that do not enforce these ordinances can be placed on probation or suspended from the program. This is done only after FEMA has provided assistance to the community to help it become compliant.

When placed on probation, a \$50 surcharge is added to the premium for each policy sold or renewed in the community. The surcharge is effective for at least 1 year after the community's probation period begins.

Suspension of a participating community occurs when the community fails to solve its compliance problems or fails to adopt an adequate ordinance. If suspended, the community becomes non-participating and flood insurance policies cannot be written or renewed. Policies in force at the time of suspension continue in force for the policy term.

Flood insurance under the NFIP is not available within a suspended community. Furthermore, Section 202(a) of Public Law 93-234, as amended, prohibits Federal officers or agencies from approving any form of financial assistance for acquisition or construction purposes in a Special Flood Hazard Area (SFHA). For example, this would prohibit loans

guaranteed by the Department of Veterans Affairs, insured by the Federal Housing Administration, or secured by the Rural Housing Services. Under Section 202(b) of Public Law 93-234, if a Presidentially declared disaster occurs as a result of flooding in a non-participating community, no Federal financial assistance can be provided for the permanent repair or reconstruction of insurable buildings in SFHAs. Eligible applicants may receive those forms of disaster assistance that are not related to permanent repair and reconstruction of buildings.

A number of factors are considered in determining the premium for flood insurance coverage. They include the amount of coverage purchased; location; age of building; building occupancy; design of the building; and for buildings in the SFHA, elevation of the building in relation to the Base Flood Elevation (BFE).

Increased Cost of Compliance (ICC) coverage under the Standard Flood Insurance Policy (SFIP) provides for the payment of a claim to help pay for the cost to comply with State or community floodplain management laws or ordinances from a flood event in which a building has been declared substantially damaged or repetitively damaged. When an insured building is damaged by a flood and the State or community declares the building to be substantially damaged or repetitively damaged, ICC coverage will help pay for the cost to elevate, floodproof, demolish or relocate the building up to a maximum benefit of \$30,000. This coverage is in addition to the building coverage for the repair of actual physical damages from flood under the SFIP. The maximum amount a policy holder receives for combined physical structural damage from flood and ICC is always capped by the maximum limit of coverage established by Congress. Example: single-family dwelling combined damage and ICC is \$250,000.

D. NFIP COMMON TERMS

- ➤ Base Flood: the 1% annual chance flood
- ➤ Base Flood Elevation (BFE): the height of floodwaters reached during the base flood
- ➤ Special Flood Hazard Area (SFHA): sometimes called the "base floodplain" because it shows the area subject to inundation by the base flood. Mandatory flood insurance purchase requirements apply in these areas (for owners with federally backed mortgage)
- ➤ Flood Insurance Rate Map (FIRM): shows SFHA's and Floodways
- Low Floor in A Zones: top of lowest floor (including basement)

- ➤ Digital Flood Insurance Rate Map (DFIRM): using GIS, these FIRMs are the current type of FIRM being produced by FEMA
- Floodway: includes the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water-surface elevation by more than 1 foot. A community must prohibit any development, including fill, within the designated floodway that would cause any additional rise in BFEs

E. COMMUNITY RATING SYSTEM (CRS) OVERVIEW

The NFIP's Community Rating System (CRS) recognizes community efforts beyond the NFIP minimum standards by reducing flood insurance premiums for the community's property owners. The discounts may range from 5%-45%. The discounts provide an incentive for new flood mitigation, planning, and preparedness activities that can help save lives and protect property in the event of flood. Currently, the Village of Mamaroneck participates in this program as a Class 8 Community.

8. OTHER AGENCY INVOLVEMENT

A. LOCAL JURISDICTION

This is the affected area's political subdivision – the Village of Mamaroneck – from which the immediate and primary response effort is launched and coordinated. Generally the local jurisdiction has authority for the response effort. Once all local resources have been exhausted, or will be exhausted, the local jurisdiction requests assistance from the county.

The role of various departments within local jurisdictions may vary significantly. There may be an Emergency Action Plan in effect that outlines the general responsibilities of the various departments and it will typically include any responsibilities assigned to the building code official.

In State-regulated buildings, the local Building Code Official is STILL responsible for the building with regard to floodplain regulations.

B. COUNTY

Westchester County government involvement will vary depending on the extent and magnitude of damage, and the capabilities of the local jurisdiction. The County Departments the Village of Mamaroneck would most likely interact with during disaster are the Westchester County Department of Emergency Services - Office of Emergency Management, the Westchester County Department of Health, and the Westchester County Department of Planning.

WESTCHESTER COUNTY DEPARTMENT OF EMERGENCY SERVICES – OFFICE OF EMERGENCY MANAGEMENT (OEM)

The Westchester County Department of Emergency Services - Office of Emergency Management (OEM) is responsible for coordinating Westchester County's response to requests for emergency disaster assistance from municipalities throughout the county. This assistance can include on-scene support to local incident commanders during emergencies; use of the county's Emergency Operations Center to manage assets and resources deployed in a large scale disaster; and serves as a conduit for acquiring assistance and support at the state and federal levels.

Your communication and collaboration with the OEM is instrumental in disaster response and recovery. The information you can provide on what is happening in your municipality will help the OEM determine the overall extent of damages and the need for additional assistance from outside sources. The Logistics section in the OEM can assist you in the event that you need additional assistance from NYS DOS CEDAR program or other assistance as needed.

Damage assessment and recovery information is also used by other department programs, as well as historical reference. You are the key liaison between the local government and the OEM, which will work with County, State and Federal agencies to share your damage assessment information in order to maximize assistance and funding opportunities. In other words, the only way to be sure to receive the help your municipality needs, is with your help and communication.

It is best to develop these relationships prior to an event, rather than during or after an emergency. Establishing relationships and planning out what will be done ahead of time is proven to make emergency situations go smoother.

WESTCHESTER COUNTY DEPARTMENT OF PLANNING

The Westchester County Department of Planning focuses on Long Term Recovery Planning for Westchester County. The information you can provide them from your damage assessment will be used to secure programs and grants that will allow our communities to recover quicker.

WESTCHESTER COUNTY DEPARTMENT OF HEALTH

The Department of Health responds to public health emergencies and concerns, including foodborne illnesses, sewage spills, public drinking water and bathing beach water quality, and preventing the spread of infectious diseases.

The DOH can also provide property owners/renters with valuable information on Drinking Water Safety after flood, Mold Remediation, Septic Issues, and other Health related issues in disaster.

C. PERMITTING AGENCIES (ACOE, NYSDEC)

When working in or near waterways, permits must be obtained from the Army Corp of Engineers, NYS Department of Environmental Conservation, or both.

D. OTHERS

THE NATIONAL GUARD may be called in to provide security to damaged areas, including ingress and egress to severely damaged areas. They may also be transporting recovery items

to the areas needing assistance, or assisting with engineering needs. Your damage assessment information will be shared with them to determine needs.

NATURAL RESOURCES CONSERVATION SERVICE may activate disaster programs to help municipalities and homeowners recover.

USGS will generally collect information on flood heights for historical reference. Your damage information will prove valuable for them, and will establish reference for future disasters.

THE ENVIRONMENTAL PROTECTION AGENCY will provide technical assistance and programs to address hazardous material issues. Again, your information will be able to direct the EPA to specific areas based on damages.

PUBLIC UTILITIES such as gas, electric, and phone will send crews into a damaged area immediately. Little interaction occurs unless dangerous conditions are observed during the course of an inspection and notification is necessary. However, what must be coordinated are any required inspections and signoffs prior to reconnecting individual structures to gas and electric lines. Procedures will vary significantly. Building inspectors should be aware of procedures so they can answer questions from property owners.

9. COMMUNICATION

A. LOCAL JURISDICTION

The role of various departments within your jurisdiction may vary significantly from those around you. There may be an Emergency Management Plan or Emergency Operations Plan in effect that outlines the general responsibilities of various municipal departments. It will typically include any responsibilities assigned to the building code official. You should communicate with your Mayor or Village Manager for guidance, and keep this official informed of your response and recovery activity.

It is very difficult to effectively organize all the agencies and departments involved in disaster response and recovery; especially when interaction and relationships between these agencies change. To expect numerous agencies to perform harmoniously without prearranged guidance and streamlined systems in a disaster event is unrealistic. The old adage that "one hand doesn't know what the other is doing" will seem to be an understatement at times. The building official should be aware of this and not contribute to it or aggravate it. Therefore, you must keep aware of changing conditions, duties and responsibilities as the response and recovery progresses. Communication is vital to this awareness.

B. COUNTY

The role of the County is to supplement resources at the local level, and to act as liaison between local government (Village/Town & County) and state and federal agencies. This is accomplished through the Westchester County Department of Emergency Services – Office of Emergency Management (OEM). The Office of Emergency Management is responsible for organizing, staffing and running the Command Operations Center, which acts as the Multi-Agency Coordination Center, and is the HUB of the emergency or disaster. The primary goals of the OEM are to provide situational information to decision makers with roles in managing the emergency as well as the public; and providing additional resources to those municipalities exhausting their own in order to address the emergency. When damages arise to buildings, you are a key component of information needed to address the emergency. Communication with the OEM will help you to receive the resources you need in a timely manner.

C. PUBLIC

Most property owners impacted by a disaster will be unfamiliar with the recovery process. This will also be a highly emotional time for them. It is recommended that patience, tolerance and compassion be emphasized to all staff when dealing with individuals struggling to recover from a disaster event.

It is recommended to have policy handouts written and available to give to the public regarding building department activities, including:

- ➤ The purpose and process of damage assessment inspections.
- ➤ What the different placards mean, what restrictions they impose and what actions are necessary to change those classifications.
- Phone numbers of agencies the public may need to contact when dealing with repairs to structures, such as the building code official, utility companies, fire and police departments, public works departments, Westchester County Emergency Services, EPA, NYS DEC, FEMA, Red Cross, shelter information and volunteer organizations in disaster recovery.
- ➤ Building Permit Information Handout
 - o When permits are required
 - How to obtain permits
 - When plans and/or reviews are required
 - How long it takes to obtain permits
 - Contractor licensing requirements and benefits
 - Steps necessary prior to utility re-hookups
 - Steps necessary to obtain a certificate of occupancy on a structure placarded as uninhabitable
 - o Building department hours of operation and phone numbers

How to communicate with the public:

- o Through office staff; office visits and phone calls
- Inspection staff; flyers/handouts given to the public or posted when inspecting
- o Meet with Volunteer Agencies: they can help distribute flyers/handouts
- Meet with your jurisdictions Public Information Officer (usually the Mayor or Supervisor) to help distribute information to News/Media
- Post information on your jurisdiction website

D. MEDIA

Public information will help instill public confidence in the jurisdiction's ability to manage an incident and protect its citizens. Providing timely, accurate, and understandable information builds confidence in the public official's competence. Information also empowers the public and allows them to make good decisions, reduces their anxiety and reassures them that government is helping.

Working with the Media will help you get the right information to the right people, at the right time, so they can make the right decisions. This includes recovery information. Make

sure your Public Information Officer (PIO) has the information you need the public to have; or can advise the public on where to obtain the information.

Keep in mind the following key points:

- View the media as an asset, which can pass information to the public
- Know your jurisdiction's policy for speaking to the press (PIO)
- Instruct volunteers or office staff on what to say if contacted by news crews
- Take a Public Information course before an emergency strikes so you will know how to talk to the media

Typical Communication Issues:

- Phone lines may be down or may be overloaded and slow
- Cell phones may not work or they could be overloaded and slow
- Electric lines may be down, or homes damaged will not have electricity for television, radio or internet
- Some homeowners may not be allowed back into damaged homes, and not knowing what to do become angry, frustrated and confused
- Citizens may not be familiar with finding contractors for either emergency or
 permanent repairs and often will request advice and assistance from building staff.
 Even if names can't be given, methods of finding contractors can be
 communicated. A list of licensed contractors from the Department of Labor, and
 a list of Westchester Home Improvement Contractors licensed through
 Westchester County can be made available.

10. LEGAL INFORMATION & REGULATIONS

LOCAL LAW

- ➤ Your authority for the administration and enforcement of the NYS Uniform Fire Prevention and Building Code is written in Local Law.
- Municipal Flood Prevention Law names the Building Code Official as the Local Floodplain Administrator of the Federal and State Floodplain Regulations.
- ➤ Local Zoning Law establishes controls for the development of land according to its comprehensive plan.

FLOODPLAIN REGULATIONS - WHO IS RESPONSIBLE?

FEDERAL Responsibilities:

- > Oversee national program
- ➤ Identify risks through mapping
- Establish development standards
- Provide affordable insurance coverage
- Regional offices: Community Assistance Program (CAP) w/ states (CACs & CAVs)

STATE Responsibilities:

- Oversee state program
- > Establish development standards (if applicable)
- > Provide technical assistance to local communities
- Document and evaluate floodplain management activities

LOCAL Responsibilities:

- ➤ Adopt/enforce local ordinances or court orders at least minimum standards
- ➤ Issue/deny floodplain development permits
- Oversee development (Inspect, Maintain Records and Remedy Violations)

A. CODE OF FEDERAL REGULATIONS (CFR) 44 SECTION 60.3

<u>60.3(a) – Communities with NO MAP shall:</u>

- Require permits for <u>all</u> proposed construction
- Review
 - proposed developments/permit applications
 - subdivision proposals & all new developments
- > Require
 - minimized floodwater infiltration in water supply systems
 - protection of sanitary sewage & on-site disposal systems

60.3(b) – Communities with MAP BUT NO BFEs shall:

- ➤ Meet the requirements of 60.3 (a) AND
- > Require
 - Permits for subdivisions or other development in mapped flood hazard area
 - New developments in flood hazard area to meet all standards

60.3(c) – Communities with MAPS AND BFEs, but NO FLOODWAYs shall:

- ➤ Meet requirements of (60.3 a) & (60.3 b) AND
- > Require
 - Elevation of lowest floor:
 - o To or above BFE residential & manufactured homes
 - o To or above BFE OR flood-proofing commercial
- > Require
 - In AO zones residential structures elevated
 - In AH and AO zones adequate drainage on structures
 - In A99 zones certain standards of 60.3(a) and 60.3(b)
- ➤ Elevation and anchoring standards in <u>EXISTING</u> manufactured-home parks or subdivisions
- > Recreational vehicles in SFHA either
 - In location less than 180 days, fully licensed and road-ready
 - OR permitted, elevated and anchored
- ➤ Allow no development within Zones A1-30 or AE unless it will not increase the BFE by more than 1 foot
- Fully enclosed areas below elevated lowest floor allow for entry and exit of floodwater through designated openings

60.3(d) – Communities with MAPS, BFEs and FLOODWAYs shall:

- ➤ Meet requirements of 60.3(a), 60.3(b) & 60.3(c) AND
 - Adopts (designates) a floodway
 - Prohibits encroachments within floodway unless engineer can show no rise in BFE

60.3(e) – Communities with V Zones shall:

- ➤ Meet requirements of 60.3(a), 60.3(b), 60.3(c), 60.3(d) AND
- Require in Zones V1-30, VE, and V:
 - Obtain elevation of bottom of the lowest structural member of the lowest floor of all new and substantially improved structures
 - Provide all new construction is located landward of the reach of mean high tide
 - Provide all new construction and substantial improvements are elevated to or above the base flood level, and is anchored to resist flotation, collapse and lateral movement
 - Provide all new construction and substantial improvements have the space below the lowest floor free of obstruction, or with non-supporting breakaway walls, open wood lattice-work, or insect screening. Breakaway walls shall not exceed a design safe loading resistance of 20 pounds per square foot unless engineer or architect certifies that
 - o Breakaway wall collapse shall result from a water load less than that which would occur during the base flood, and
 - The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components.
 - Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.
 - Prohibit use of fill for structural support of buildings
 - Prohibit man-made alteration of sand dunes and mangrove stands
 - Provide that manufactured homes located outside of a manufactured home park or subdivision, in a new manufactured home park or subdivision, in an expansion to an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as a result of a flood, meet all of the standards of 60.3(e) (2) through (7), and that homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within V zones meet the requirements of 60.3 (c) (12)

- Require recreational vehicles either
 - o Be on site for fewer than 180 consecutive days
 - o Be fully licensed and ready for highway use, or
 - Meet the requirements in 60.3 (b) (1) and 60.3 (e) (2) through (7)

60.3(f) – Communities with AR Zones: This will not apply to our area

"DEVELOPMENT" as defined by 44 CFR 59.1

Any man-made change to improved or unimproved real estate including but not limited to:

- buildings or other structures,
- > mining,
- dredging, filling, grading,
- > paving,
- > excavation or drilling operations, or
- > storage of equipment or materials

According to this definition, anything from putting in a fence, swing set, or shed to a garden would be considered development.

Most floodplain administrators would not require a permit for a flower bed. Strictly speaking, though, that is considered an action that would require a permit if in the floodplain.

B. NYS ENVIRONMENTAL CONSERVATION LAW, PART 502: FLOODPLAIN MANAGEMENT CRITERIA FOR STATE PROJECTS

- ➤ Requires state agencies to first assess whether a property will be located within a SFHA or 500-year floodplain (0.2% annual chance of occurring). If so, investigate potential alternatives.
- Enacted to "avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative".

C. EXECUTIVE ORDER 11988

Requires Federal agencies to first assess whether a property will be located within a SFHA or 500-year floodplain (0.2% annual chance of occurring), and if so, to follow

- an eight-step process to assure all alternatives and guidelines are met before proceeding with the project.
- Enacted to "avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative".

D. CLEAN WATER ACT OF 1972

- Section 303 authorizes States and Tribal governments to establish water quality standards for navigable waterways to protect and enhance water quality
- > Section 311 addresses pollution from oil and hazardous substances
- ➤ Section 401 provides that no Federal permit or license is issued for activities that might result in a discharge to navigable waters unless a 401 certification is issued
- ➤ Section 402 is the National Pollutant Discharge Elimination System (NPDES) a permitting system established to regulate point source discharges of pollutants. Under the EPA's purview.
- > Section 404 establishes permitting systems to regulate the placement of dredged or fill materials into waters (including wetlands). Under the USACE's purview.

E. US FISH AND WILDLIFE SERVICE ENDANGERED SPECIES ACT OF 1973

➤ Consultations required under Sections 7 and 10 of this Act if development is proposed in an endangered/protected species habitat.

F. US COAST GUARD

➤ May require a permit if the development includes a bridge or causeway that may affect navigation.

G. US ARMY CORPS OF ENGINEERS

➤ Requires permits for work in navigable waterways.

H. NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Regulates and administers permits for work in the Tidal Wetlands.

A. MUTUAL AID TEMPLATE

B. BUILDING CODE DEPARTMENT TIME KEEPING LOG

Generally, when a Presidential Disaster Declaration is made, there is a local cost share involved in Public Assistance Grants to Municipal Government. Volunteer labor can be used to offset this local match, so it is very important to track the hours of mutual aid or volunteer assistance.

The attached Time Keeping Log can be used to make this easier.

TIME SHEET

VOM						
Week Of:						
EMPLOYEE NAME:			TITLE:			
DISASTER ASSISTANCE	: MUTUAL AID/VOLUNTI	EER LABOR				
DEPARTMENT:			SUPERVISOR:			
DATE	START TIME	END TIME	REGULAR HOURS	OVERTII	ME HOURS	TOTAL HOURS
WEEKLY TOTALS:						
EMPLOYEE SIGNATURE	Ε:				DATE:	
SUPERVISOR SIGNATU	RE:				DATE:	

C. BUILDING CODE OFFICIAL CHECKLISTS

The following checklists are intended to be used by building departments when responding to disaster events requiring the inspection of damaged structures. They are intended to help speed the building code official response efforts and to ensure critical aspects of the response are not omitted.

1. Preparedness

The effectiveness of any disaster response effort will be enhanced by preparation. This checklist includes recommendations designed to allow for an immediate response to a disaster event which overwhelms a local jurisdiction's capabilities and requires outside inspection assistance.

2. <u>Setup and Preparation for the Response Phase</u>

This checklist assists with identifying the role and responsibilities of the building department in the Damage Assessment task and designating how the response effort is intended to proceed. It will offer example goals and objectives based upon the past experience of other building departments.

3. Implementing and Monitoring the Response

This checklist assists with implementing goals and objectives in the Damage Assessment task and ensuring required work, reporting and communication is being completed.

4. Flooding Inspection & Repair Checklist

This checklist lists items within each system of a building that should be inspected and repaired as noted.

5. Preparation and Monitoring the Recovery Phase

This checklist assists with identifying critical building department functions of the Recovery Phase that will help assist the community to quickly rebuild.

Checklist #1: Preparedness Checklist

Jurisdict	ion: Date:
Building	g Code Official:
BEFORE	gly recommended to build a Disaster "Go-Kit" with the following suggestions Disaster, so that you have everything collected ahead of time, allowing more efficient ive response and recovery.
	IZATIONAL: hand and available.
	A copy of the community's Emergency Operations Plan.
	An organizational chart (typically it is different under emergency conditions).
Ш	A copy of the Village of Mamaroneck Building Officials Disaster Preparedness Handbook.
	Phone number for NYS DOS Codes Division and regional staff.
	Copies of any mutual aid agreements.
FORMS On hand t	o be copied. Examples contained in the appendix.
	Damage Assessment Inspection Form.
	Placards
	o Inspected: No Apparent Hazard Found (GREEN placard)
	 Restricted Use: Hazardous Condition Exists/or Potential (YELLOW placard) Unsafe: Extreme Hazard Present (RED placard)
	Deputizing Form- for assisting staff.
	Jurisdiction maps - copy size.
	Map of the jurisdiction which includes individual addresses (invaluable).
	See appendix for additional forms.

EQUIPMENT TO BE AVAILABLE TO EACH INSPECTOR/TEAM: To be purchased and held in a "Go-Kit" for immediate use in disaster Large flashlights. Extra batteries. Rolls of duct tape. Clip-on name tags. Black markers, pens. Clipboards/notebooks. Polaroid camera and film and/or digital camera. First aid kit (small). Request assisting staff to bring. Hard sole waterproof boots. Identification as building inspector. Code books Cell phone (if available). Rain gear. Hard hat. Gloves. Tape measure. Bright vest - (e.g.) as used by road maintenance crews. Insect repellant, if applicable. **MISCELLANEOUS-RECOMMENDATIONS:** Attend educational opportunities about disaster mitigation. Provide staff training by assisting other jurisdictions struck by disasters (both field and office staff).

Checklist #2: Setup and Preparation for the Response Phase

Jurisdiction: _____ Date: _____

Build	ing Code Official:
	Determine the Building Code Official's Role & Responsibilities • Review the local jurisdiction Emergency Plan;
	 Review the Building Code Official Disaster Preparedness Handbook;
	 Verify roles & responsibilities with Chief Elected Official.
	Determine the Scope of Damage
	 Conduct a "windshield survey" by driving through your jurisdiction and noting areas with damaged buildings; Estimate the number of damaged structures requiring inspection; Identify if there are any high priority structures requiring immediate inspection, including those in danger of collapse, utilities, hospitals/medical offices, nursing homes, schools, fire departments, and other critical facilities; Report preliminary assessment to VOM Emergency Operations Center (EOC) for use in determining if State or Federal assistance might be needed.
	Design the Response
	• Set goals for the department, such as:
	 Complete damage assessment report and placard each damaged structure within 24-48 hours. Compile and maintain a color coded map of all damaged structures based on the placarded color.
	Submit documentation of damage to Chief Elected Official and VOM EOC doily

request additional assistance.

inspections and permits.

o Maintain communications with Chief Elected Official and VOM EOC to

o Open communication channels with the public regarding placarding,

- Set objectives for the department, such as:
 - Decide if assistance will be required to inspect & document damaged structures within specified time period – think of both field and office.
 - Identify number of volunteers needed in office to answer calls, take permit applications, and handout public information flyers.
 - Identify number of volunteers needed for field inspection. It is advised there be teams of two inspectors used for all inspections.
 - O Decide on files to be created in order to document, monitor and report on activities, such as:
 - A file for each damaged structure/property.
 - A file for volunteer sign-in, time cards, placards, and inspection sheets.
 - A file for departmental expenses.
 - A file for the different forms needed.
 - A file for property owner handouts.
 - A file to document policies created.
 - o Decide on maps to create, such as:
 - Small maps displaying street names and individual addresses.
 - Larger map with address numbers of overall damages to color code based on placard posted.
 - Decide on methods of delivering reports/documentation and maintaining upward communications, such as:
 - Daily: deliver a revised color coded map and a summary report of damaged structures to Chief Elected Official and WC Emergency Operations Center.
 - Create a spreadsheet to document damaged structures and their progression through the permit process.
 - Daily: discuss progress, problems, decisions, staffing, and direction with volunteers and Chief Elected Official. Morning briefings and/or evening briefings work well.
 - o Decide policy issues, such as:
 - Will office hours be extended? Yes.
 - Will building permits for repairs required be fee based or will they be issued at no charge? - Board of Trustees decision.

- For what work is a permit required, and will the permits be issued over the counter or will a plan review be required? If so, specify a time frame for permits to be issued.
 - ➤ Roof repair Over the Counter
 - ➤ Siding repair Over the Counter
 - Electrical repair Permit
 - Mechanical systems repair Permit
 - Plumbing systems repair Permit
 - > Fire suppression/alarm repair Permit
 - > Structural repair Permit
 - > Structural demolition Permit
 - > Other:__
- How will contractor licensing be enforced Permit Process:
 Westchester County Home Improvement License.
- Will dollar valuation of damage be determined by the building inspector or will a percentage multiplier be used based on placard? – TBD.
- What authority will volunteer labor have, and what will be restricted and retained by the Building Code Official, such as:
 - ➤ Issuing a Stop Work order Building Inspector
 - ➤ Ordering Non-Licensed contractors off a job Code Official
 - ➤ Issuing demolition permits Building Inspector
 - Issuing permits on non-conforming uses/buildings Building Inspector
- Research and document the utility reconnection process for:
 - ➤ Damaged/disconnected electric service Electrical Inspector
 - Damaged/disconnected gas/propane/oil service Building Inspector
- o Decide upon methods of communication with affected public, such as:
 - Public information handout(s), which explain the purpose of inspection and placarding, when a permit is required, how and where to obtain a permit, the process for re-occupying a structure declared uninhabitable, and phone numbers the public will find useful.
 - Contractor licensing requirements and the protection it affords the public.
 - Handout for avoiding scam artists and finding reputable contractors for repairs.
 - Handout for dealing with insurance companies, FEMA, and other assistance for property owners.

Checklist #3: Implementing and Monitoring the Response

Jurisdiction:	Date:
Building Code Of	ficial:
RevieRevie	roval for Goals and Objectives w the local jurisdiction Emergency Plan; w the Building Code Official Disaster Preparedness Handbook; y roles & responsibilities with Chief Elected Official.
Initiate the I	Damage Assessment Response
• Obtain	ning volunteer assistance if necessary, for both office and field work:
>	Contact the Village of Mamaroneck Emergency Operations Center (EOC) to request volunteer inspectors and mutual aid.
>	Identify volunteers in the local jurisdiction that may be able to help in office activities; if no assistance available, contact the WC EOC.
>	In a very large event, assign assistants to coordinate/oversee assisting volunteers, office functions and staff, field inspections and staff and supplies.
• Office	e functions to be completed:
>	Create all files previously decided on.
>	Find/modify/create all maps previously decided on.
>	Create documents of each/all policies previously decided on.
>	Create and post an organizational chart (if needed) to identify who each position reports to and which positions are responsible for which tasks.
>	Create a public information handout.

> Create local identification badges for assisting volunteers if necessary.

Make copies of:

- Damage Assessment Report Forms
- Placards of each color
- o Structure damage/placarding guidelines
- Public Information Handouts
- Other forms as needed
- Assign staff member/volunteer the responsibility for submitting Damage Assessment Reports, spreadsheets and color-coded maps to Building Code Official, Chief Elected Official and SC Emergency Operations Center.

• Field functions to initiate:

- > Create a daily schedule for all staff and volunteer positions.
- ➤ Communicate with volunteer inspectors with a briefing of what happened, where damages are, and what your policies and procedures are, and timeframe to complete inspections.
- Assign inspection teams (2 inspectors on each team) to specific areas and define their roles and reporting process. Document each team's assignment and inspection area as well as time sheets.
- Require/verify inspection teams check-in at noon (safety check).
- At end of day, verify all inspectors return, are debriefed, and reports and time sheets are submitted.
- ➤ Report findings to Chief Elected Official and VOM Emergency Operations Center at end of day.

Office functions

- Discuss with staff any problems as well as potential solutions.
- Hold orientations (training) for new permit staff.
- Review staffing/volunteer requirements daily.
- Building Code Official should verify all assigned tasks are being completed properly.

Field functions

- Hold orientations for new inspection staff each morning.
- Debrief inspectors at end of each day.
- Review staffing/volunteer requirements daily.
- Building Code Official should verify all assigned tasks are being completed properly.

Reports

- Verify maps, damage spreadsheets and structure damage reports are being completed and submitted to Chief Elected Official and VOM Emergency Operations Center daily.
- Verify volunteers understand their authority and timecards are being completed.
- Verify expense reports are completed (if authorized).

Communication

- Verify morning check-in, noon check-in, and end of day check-in.
- Update information being distributed to the public as needed.

Periodically verify if responsibilities include any new tasks (ie: Are trailers for housing displaced residents being brought in which would require review and approval?).

Checklist #4: Flooding Inspection and Repair

Jurisdiction:	Date:
Building Code Official:	

Electrical systems

- Although electrical inspectors inspect electrical wiring, it is important that building inspectors understand circumstances wherein the integrity of electrical materials and equipment is affected by flood water. In many instances deterioration that affects insulation, current carrying capability and mechanical operation may not develop immediately. In most instances the integrity of electrical equipment and devices is severely impaired by corrosive contaminates and sediments found in or left behind by floodwaters. Equipment and devices may operate in an unattended or unmonitored state, however, the operational failure of these devices or equipment exposes occupants and property to possible electrical shock and fire hazard.
- All panel board interiors, circuit breakers, fuse blocks, disconnect switches, controllers and similar devices that have been submerged must be replaced.
- All lighting switches and receptacle outlets that have been submerged must be replaced.
- All electrical equipment or components that have been submerged must be replaced. This includes, but is not limited to lighting fixtures, furnaces, baseboard heaters, space heaters, water heaters, pumps, washing machines, clothes dryers, ovens, ranges, cooktops, dishwashers, air conditioning condensing units and other appliances and equipment.
- All electrical wiring, including service conductors, feeder cables or conductors, and branch circuit cables or conductors, must be replaced where they have been either partially or completely submerged.
- For questions concerning electrical work and repairs to be completed, contact the NYS Department of State Building Codes division regional representative.

Plumbing systems

- If water lines have been partially or fully submerged they should be tested for leaks.
- After water lines have passed the working pressure test they should be flushed with water and chlorine mixture (200 parts per million for 3 hours or 50 parts per million for 24 hours).
- If tank insulation on the water heater storage tank has been partially or fully submerged in floodwater, the water heater may require replacement.
- For questions concerning inspection, testing, and corrections of the plumbing system, contact a NYS Department of State Building Codes division regional representative.

Mechanical systems

- Metal ductwork that has been partially or fully submerged may have to be removed and cleaned. If ductwork is fiberglass board type it shall be removed and replaced with new ductwork. Appropriate ductwork insulation shall be replaced or installed.
- Gas lines and connections may require testing for leakage.
- If furnace insulation has been partially or fully submerged, replace the insulation in accordance with the manufacturer recommendations. See electrical section for actions if furnace electrical equipment or components have been partially or fully submerged.

Main structure

- Remove & replace all insulation in the floor or walls of a home subjected to flood water.
- Inspect all floor decking that was submerged in floodwaters. If necessary, replace with materials rated to be used as floor sheathing for the joist spans of the floor.
- Loosen or remove siding and sheathing allowing drying of construction materials.
- Treat flood water soaked construction elements for bacteria and potential mold and mildew growth (contact Westchester County DOH for suggested treatment).
- Allow areas to dry thoroughly prior to replacement of components such as insulation, vapor barriers or drywall (gypsum board). Note: Flood water will wick through construction elements, extending the damage beyond the benchmark of the actual floodwater.

Wells

- Water from wells can not be regarded as safe for drinking or food preparation until the well and plumbing system have been flushed and disinfected, and, a water test shows that it is safe.
- A well should be considered contaminated any time the floodwater comes in contact with the well casing.
- NYS Department of Health has published the following fact sheet on private wells and flooding. http://www.health.ny.gov/environmental/water/drinking/flooding/docs/private_wells.pdf

Septic Systems

- If a septic system has been flooded, chances are the septic tank has collected silt. Owners should have flooded tanks pumped out as soon as possible taking care that ground water pressure does not damage the tank.
- Septic systems should not be driven over when they are saturated, this will reduce the ability of the drain-field to treat wastewater.
- NYS Department of Health has published a booklet on what you need to know about health and safety in flooding.
 - http://www.health.ny.gov/environmental/emergency/flood/docs/when theres a flood.pdf

Manufactured Homes – Support System & Anchoring

- Remove skirting to allow drying under the home.
- Remove any vapor barriers on the ground under the home to allow drying of soils (replace vapor barrier when soils are dry).
- Check soils in areas of footings/piers for undermining.
- Check anchors for damage to anchor, strapping, or strapping connectors.
- Check anchors to verify that they are solidly in the soil.
- Check pier supports and blocks to verify they are not loose or damaged and verify that shims between pier and home frame are secure.
- If soil erosion has occurred or if lack of soil exists to create positive drainage away from home, have it reworked.

Checklist #5: Preparation and Monitoring the Recovery Phase

Jurisdiction:	Date:
Building Code Off	ficial:
Set Goals and	d Objectives
• Sample	e Goals:
>	Issue repair permits, perform inspections and complete repair
	documentation without delays to the public or the recovery process.
>	Assist the public through effective communication, handouts and
	publications.
>	Complete required records documentation for codes and floodplain
	regulations.
-	e Objectives:
>	Obtain adequate staffing to achieve goals. Includes Inspectors, Permit and
	Office Work.
>	Create written policies to guide staff, such as:
	What work will or will not require issuing a permit.
	What work will require a plan review before issuing a permit.
	 Under what conditions and timeframes must damaged buildings be
	boarded.
	Identify utility connection process. What are the requirements for records and documentation.
	 What are the requirements for records and documentation. Communicate permitting requirements with the affected public through
	inspectors, office staff, handouts, and media.
<i>∠</i>	Communicate daily with Chief Elected Official and VOM Emergency
,	Operations Center.
	operations center.
Initiate the R	ecovery Phase
• Obtain	adequate staffing to handle permitting, plan review and inspections as
	ty owners rebuild.

• Continue communication with Chief Elected Official and VOM EOC.

programs, and technical assistance.

• Continue communication with the public on rebuilding efforts, hazard mitigation

D. DAMAGE ASSESSMENT GUIDELINES

When assessing structural damage, it is important to evaluate every structure within the affected area, even if the structure appears unaffected. Unaffected buildings do not need to be placarded, but this process will ensure that isolated undamaged homes are identified and recorded and that the damage assessment is thorough.

EVIDENCE OF DAMAGE

The list below identifies each type of damage according to common observable evidence. This is not a comprehensive list, rather a guideline.

Placard & Color	Examples of Damages Noted on Inspection
	Intermittent shingle damage
GREEN PLACARD:	 Broken windows
INSPECTED	 Loose/missing siding
	• Water Damage: Less than 1 foot in basement; Minor access
Affected, habitable, needs	problem
minor repairs	
-	Wall or section of roof damaged, missing windows, doors,
YELLOW PLACARD:	or shingles that allow water penetration
	 Broken waste lines, spilled fuel, etc.
RESTRICTED USE	 Without life safety provisions (existing obstructions,
	electricity, sprinklers, water, HBAC, etc.)
Moderate damage,	• Water Damage: Single/Multi Family: Less than 1 foot on
uninhabitable	first floor (without basement); 1-8 feet in basement
	 Water Damage: Manufactured: utilities flooded, piers
	shifted/soil eroded
	 Not in immediate danger of collapse
	 2+ walls and roof majorly damaged
YELLOW or ORANGE	 Portion of roof missing; twisted, bowed or cracked walls;
PLACARD:	forceful penetration of the structure by a large object such
	as a car/tree; foundation damage
RESTRICTED USE	 Without life safety provisions (existing obstructions,
	electricity, sprinklers, water, HVAC, etc.)
Major damage, uninhabitable,	• Water Damage: Single/Multi Family: 1 foot or More on first
Need to determine if	floor; structural damage; or collapsed basement walls
Substantial Damage	• Water Damage: Manufactured: water-soaked bottom board,
	shifted on piers
	 Structure totally gone, only foundation remains
	 Major section of exterior walls missing or collapsed;
RED PLACARD: UNSAFE	structure shifted off foundation
	 Repair not technically or economically feasible
Destroyed, permanently	• Water Damage: Single/Multi Family: more than 4 feet on
uninhabitable	first floor; not economical to repair
	Water Damage: Manufactured Home: water above floor
	level or unit off foundation

E. RAPID EVALUATION FORM

ATC-45 Rapid Evaluation S	Safety Assess	ment Form
Inspection Inspector ID:	Inspection date:	
Affiliation:	150	
Areas inspected: Exterior only Exterior		
Building Description	Type of Building	
Building name:	☐ IVIIU-HSE DI HIGH-HSE	☐ Pre-fabricated
Address:	 Low-rise multi-family Low-rise commercial 	One- or two-family dwelling
Building contact/phone:		
Number of stories:	Other recidential	☐ Commercial ☐ Government ☐ Offices ☐ Historic
"Footprint area" (square feet):	Public assembly	☐ Industrial ☐ School
Number of residential units:	─ ☐ Emergency services	☐ Other:
Evaluation		
Observed Conditions: Mi Collapse, partial collapse, or building off foundation Building significantly out of plumb or in danger Damage to primary structural members, racking of walls Falling hazard due to nonstructural damage Geotechnical hazard, scour, erosion, slope failure, etc. Electrical lines / fixtures submerged / leaning trees Other (specify) See back of form for further comments.	nor/None Moderate Seve	(excluding contents)
Posting Choose a posting based on the evaluation and team judg grounds for an Unsafe posting. Localized Severe and ove		
☐ INSPECTED (Green placard) ☐ RESTRICTE Record any use and entry restrictions exactly as written on		☐ UNSAFE (Red placard)
Number of residential units vacated:		
Further Actions Check the boxes below only if further Barricades needed in the following areas:		
☐ Detailed Evaluation recommended: ☐ Structura	al Geotechnical	Other:
Substantial Damage determination recommended	And the state of t	AND PROPERTY.
See back of form for further comments.		

F. DETAILED EVALUATION FORM

ATC-45 Detailed Evaluation Safety Assessment Form Inspection **Final Posting** from page 2 Inspector ID: ______ Inspection date: _____ ☐ Inspected Restricted Use Affiliation: _____ Inspection time: ____ AM PM ☐ Unsafe **Building Description** Type of Building Building name: _____ ☐ Mid-rise or High-rise ☐ Pre-fabricated Address: Low-rise multi-family One- or two-family dwelling Other: Low-rise commercial Building contact/phone: ______ **Primary Occupancy** ☐ Dwelling ☐ Commercial Government Number of stories: ☐ Other residential Offices ☐ Historic "Footprint area" (square feet): _____ ☐ Public assembly ☐ School Industrial Number of residential units: _____ ☐ Emergency services Other: **Evaluation** Investigate the building for the conditions below and check the appropriate column. There is room on the second page for a sketch. Minor/None Moderate Severe Comments Overall hazards: Collapse or partial collapse Building or story lean or drift Fractured or displaced foundation Structural hazards: Failure of significant element/connection Column, pier, or bearing wall Roof/floor framing or connection Superstructure/foundation connection Moment frame Diaphragm/horizontal bracing Vertical bracing Shear wall Nonstructural hazards: Parapets, ornamentation Canopy Cladding, glazing Ceilings, light fixtures Stairs, exits, access walkways, gratings Interior walls, partitions Mechanical & electrical equipment Elevators Building contents, other _____ Geotechnical hazards: Slope failure, debris impact Ground movement, erosion, sedimentation Differential settlement

Building name:						1112	JEGIL	טוונ	h <u></u>									
Sketch Make a sketch of the damaged building in the space provided. Indicate damage points.																		
stimated Building Damage (excluding contents)																		
 □ None □ > 0 to < 1% □ 1 to < 10% □ 10 to < 30% □ 30 to < 70% 																		
☐ 70 to < 100% ☐ 100%																		
Posting If there is an existing posting from a Previous posting: INSPECTED												· ID:				Dat	e:	
necessary, revise the posting base he overall building are grounds for destricted Use posting. Indicate th een revised or not.	an U	nsaf	fe po	sting	j. Loc	al <i>Se</i>	vere	and	ove	erall	Mod	erat	e co	ondit	ions	may	allov	N a
☐ INSPECTED (Green placard) ecord any use and entry restriction					n on p			58							100	lacai		
umber of residential units vacated:																		
urther Actions Check the boxes Barricades needed in the followin			y if f	urthe	r actio	ns ar	e nee	ded.										

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ATC-45 Fixed Equipment Checklist **Building Description** Inspection Building name: _____ Inspector ID: _____ Affiliation: Address: Inspection date: Inspection time: _____ DAM DPM Checklist **Equipment Damaged** Minor/None Moderate Severe Comments Overall hazards: Main boilers Chillers **Emergency generators** Fuel tanks Battery racks Fire pumps On-site water storage Communications equipment Main transformers Main electrical panels **Elevators (traction)** Other fixed equipment Special concerns for hospitals and other health care facilities Radiation equipment Toxic chemical storage Liquid oxygen tanks Other: _____ Recommendations/Comments:

G. PLACARDS

LAWFUL OCCUPAN	OCCUPANCY PERMITTED
This structure has been inspected (as indicated below) and no apparent structural hazard has been found.	Date
Inspected Exterior Only Inspected Exterior and Interior	
Report any unsafe condition to local authorities; reinspection may be required.	This facility was inspected under emergency conditions for:
	(Jurisdiction)
	Inspector ID / Agency
Facility Name and Address:	

Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority

CTED USE	Date	This facility was inspected under emergency conditions for:	(Jurisdiction)		
RESTRE	aution: This structure has been ispected and found to be damaged as escribed below:	intry, occupancy, and lawful use are estricted as indicated below:		acility Name and Address:	

Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority

SU DEL DEL DEL	as Time	This facility was inspected under emergency conditions for:	Inspector ID / Agency		
RESTRA	aution: This structure has been spected and found to be damaged a escribed below:	Intry, occupancy, and lawful use are estricted as indicated below: □ Do not enter the following areas:	Brief entry allowed for access to contents:	Uther restrictions:	acility name and address:

Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority

UNSAFE

DO NOT ENTER OR OCCUPY (THIS PLACARD IS NOT A DEMOLITION ORDER)	OR OCCUPY DEMOLITION ORDER)
This structure has been inspected, found to be seriously damaged and is unsafe to occupy, as described below:	DateTime
	This facility was inspected under emergency conditions for:
	(Jurisdiction)
	Inspector ID / Agency
Entry may result in death or injury. Facility Name and Address:	

Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority

H. FEMA DISASTER ASSISTANCE PROGRAM OVERVIEW

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

Disaster Process and Disaster Aid Programs

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288

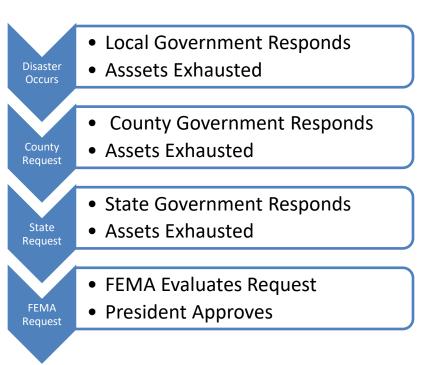
Response and Recovery

ALL EMERGENCIES and DISASTERS START AND END LOCALLY

First Response to a disaster is the job of local government's emergency services with help from nearby municipalities. When resources are exhausted, the local government requests assistance from the county government, which turns to state assistance when county resources are exhausted. In large-scale events, when resources at the state are not sufficient to assist, federal resources can be mobilized through the Federal Emergency Management Agency (FEMA) for such things as, search and rescue, security, debris removal, food and water, among others.

It is the long-term recovery phase of a disaster which places the most severe financial strain on a local, county or state government. Damage to public roadways, bridges and publicly owned buildings and facilities, can overwhelm even a large jurisdiction. Property owners, many without insurance to cover loss, can quickly lose hope that they may recover.

A Major Disaster Declaration will activate many federal recovery programs, designed to help disaster victims, businesses and public entities. A Major Disaster Declaration usually follows these steps:



DISASTER AID PROGRAMS

There are two major categories of disaster aid:

Individual Assistance: for damage to residences and businesses or personal property losses, and

<u>Public Assistance:</u> for repair of infrastructure, public facilities and debris removal.

Individual Assistance

Immediately after the declaration, disaster workers arrive and set up a Disaster Assistance Center (DAC) to coordinate the recovery effort. Disaster victims can meet with program representatives and obtain information about available aid and the recovery process. Property owners can also apply for FEMA assistance online at http://www.disasterassistance.gov/ or by calling the Disaster Help Line at 1-800-621-FEMA (3362).

After a major disaster, FEMA tries to notify all disaster victims about the available aid programs and urge them to apply. The news media are encouraged to visit a DAC to help publicize the disaster aid programs and the application website, telephone number and address of the Disaster Assistance Center.

Disaster assistance to individuals generally falls into the following categories:

<u>Disaster Housing:</u> may be available for up to 18 months, using local resources, for displaced persons whose residences were heavily damaged or destroyed. Funding also can be provided for housing repairs and replacement of damaged items to make homes habitable.

Disaster Grants: are available to help meet other serious disaster related needs and necessary expenses not covered by insurance and other aid programs. These may include replacement of personal property, and transportation, medical, dental and funeral expenses.

<u>SBA Low Interest Loans:</u> are available after a disaster for homeowners and renters from the US Small Business Administration (SBA) to cover uninsured property losses. Loans may be for repair or replacement of homes, automobiles, clothing or other damaged personal property. Loans are also available to businesses for property loss and economic injury.

<u>Other Disaster Aid Programs:</u> may be available including crisis counseling, disaster-related unemployment assistance, legal aid and assistance with tax, Social Security and Veteran's benefits. Other state and local help may also be available.

After the application is taken, the damaged property is inspected to verify the loss. If approved, an applicant will soon receive an electronic transfer of funds (or check) for rental assistance or a

grant. Loan applications require more information and approval may take several weeks after application. The deadline for most individual assistance programs is 60 days following the President's Major Disaster Declaration.

Audits are done later to ensure that aid went to only those who were eligible and that disaster aid funds were used only for their intended purposes. These federal program funds cannot duplicate assistance provided by other sources such as insurance.

After receiving disaster assistance funds related to flooding, there is a Mandatory requirement to obtain and maintain Flood Hazard Insurance on the property equal to the amount received. You can find out more about flood insurance by visiting www.floodsmart.gov or talking to your Insurance Company.

Public Assistance

Public Assistance is aid to state, county or local governments to assist in rebuilding the community's damaged infrastructure and publicly owned buildings and offsetting the cost of emergency protective measures taken during and immediately following a disaster to protect the life and safety of residents.

In large disasters, damages usually far exceed a local municipality's yearly budget. The Public Assistance program is meant to help applicants recover more quickly, without forcing this burden onto taxpayers.

This program is coordinated through the County Emergency Management/Services Office. FEMA and State representatives will hold an Applicants Briefing where municipal officials will learn about the program and have the opportunity to apply for assistance.

FEMA and State representatives will then work with each applicant to set up an initial "Kick-off meeting" with each applicant to discuss overall damages and create a plan to inspect damages.

Once teams inspect damages, a Project Worksheet is created defining the damages and a cost estimate of restoring the damage to its pre-disaster condition. Additional mitigation measures may be added to help alleviate damages in the future.

FEMA will reimburse the applicant 75% of the approved project costs, NYS contributes an additional 12.5%, and the local applicant shares 12.5% of the cost.

I. PUBLIC INFORMATION: AGENCY CONTACT INFORMATION

Jurisdiction:	Date:
Building Code Official:	
Office Phone:	Cell Phone:
Office Hours:	

Please contact the Building Code Official to discuss your recovery plans. You may need a permit for some or all of your rebuilding activities (though there may be no fee for these permits). Your Building Code Official can also provide information for you on steps you can take now to help reduce future damages to your building.

The following is a list of contact information for other agencies you may need to contact during your recovery:

Westchester County Department of Health: 914-813-5000

The DOH can provide assistance with health related issues you may encounter, such as disinfecting wells, mold remediation, private septic systems, etc.

FEMA Disaster Assistance: 1-800-621-FEMA (3362)

If your area was declared a Major Disaster Declaration, you can apply for FEMA Disaster Assistance. You may also apply online at www.disasterassistance.gov.

As not all programs are available for all disaster situations, please contact the Village of Mamaroneck Building Department for more information on what programs are available.

J. PUBLIC INFORMATION: DAMAGE ASSESSMENT/NEXT STEPS

Guidance for Owners and Occupants of Damaged Buildings

Reprint of Appendix E of ATC-45 *Field Manual: Safety Evaluation of Buildings After Windstorms and floods*, which is available from the Applied Technology Council, 201 Redwood Shores Parkway, Suite 240,Redwood City, CA 94065 (Website: www.ATCouncil.org)

This document is intended to provide basic information to owners or tenants of buildings that suffer wind and/or flood damage. It attempts to answer many of the typical questions that arise during the recovery period. The issues covered include: (1) the safety evaluation process and the meaning of each of the three safety evaluation postings, (2) the process of securing services to perform repairs, and (3) how to obtain aid from disaster assistance organizations.

Understanding Safety Evaluation Procedures and Postings

If a building in which you reside, work or own is damaged by a wind or flood event, it should be inspected by safety evaluation personnel working for the local government building inspection agency. An official safety evaluation may not be possible until a few days after the event, depending on the extent of local damage and the number of available qualified inspectors and engineers assigned to your area. If significant damage is apparent, do not wait for an official evaluation of the building. The prudent choice is to discontinue use and occupancy of the building. When an authorized safety evaluation team does arrive, it is very important to cooperate with them by both providing information about and access to the building.

The first safety evaluation team to arrive will likely be conducting Rapid Evaluations, which require only 10 to 30 minutes for each property. Their responsibility is to determine quickly if a building is safe enough to occupy, and if not, to decide what restrictions to place on its use or entry. The results of the inspection will be placed near the entrance to the building on one of three possible posting placards (discussed below), which indicate the status of the safety evaluation.

Due to the nature of the Rapid Evaluation, in most cases the safety evaluation is limited to inspecting only the exterior of the building. If a severe interior problem is brought to the attention of the Rapid Evaluation Team or the structure cannot be adequately viewed from the exterior, an interior evaluation may be conducted. If the damage is severe, the posting most likely to be used is a red UNSAFE placard. This sign indicates that it is unsafe to occupy or enter the building for any reason. There is also a small chance that an otherwise safe building could be correctly posted as Unsafe when parts of an adjoining building could fall onto that building. Even when a building can be entered for inspection it is still possible that internal damage could pose dangers requiring an UNSAFE posting.

It is very important to realize, however, that the "red tag" posting does *not* automatically mean that the property has been condemned or will require demolition. Indeed, only in extremely

rare cases is damage so severe or the threat to an adjacent property so high that an order to demolish a building is issued. Demolition may eventually be the appropriate action for an owner to take if repairs are too expensive, but again, this is not the normal consequence for most buildings with UNSAFE postings.

In addition to posting the entire building, specific locations inside or outside a building may be barricaded. In situations where a potential falling hazard exists, the immediate area below that part of the building may be marked or otherwise barricaded with yellow tape having a message that reads "Do Not Cross Line," "Restricted Area—Keep Out," or similar cautionary wording. Examples of situations requiring barricading are damaged masonry chimneys, ceilings, or other parts of the building that could fall on occupants or passers by.

An intermediate posting called RESTRICTED USE is used to address situations in which a clearly unsafe condition does not exist, but the type of damage prevents unrestricted occupancy. If a safety evaluation reveals damage of a nature that allows safe entry into a building or portion thereof, but would not permit its continued use on a permanent basis, a yellow RESTRICTED USE placard will normally be used. This posting may also apply when a Rapid Evaluation team cannot make a definite determination about the safety of a building. This can occur, for example, when access inside a building is not provided at the time of the evaluation or when finish materials prevent viewing structural members.

Examples of nonstructural damage that could lead to a Restricted Use posting include the loss of use of basic sanitary facilities due to broken water or sewer pipes or damage to a fire sprinkler system required for safe permanent occupancy. Other situations can involve localized structural damage that would place a portion of a building in an unsafe condition while other areas remain usable.

Normally, the RESTRICTED USE placard will contain a brief description of the limits or conditions of continued use. Often, entry is limited to occupants or owners so that they can retrieve valuable or essential property or to contractors so that necessary repairs can be made. If you are present when a Restricted Use posting is made, you should ask the inspectors for a clear explanation of the limits placed on entry or occupancy. If you return to your property and find a posting placard that does not adequately explain the limits of entry or use, you should contact the local building inspection agency for more specific information before entering the building.

Where damage is insignificant or is readily repairable and does not pose any significant safety hazard, the proper posting should be a green INSPECTED placard. This posting is intended only to inform occupants that the building may be safely occupied. It does not imply that existing damage should be ignored or that repairs are not necessary. If you have evidence that damage to your building is significant, in spite of the green INSPECTED placard, you should contact the building inspection office to schedule a reevaluation of the initial posting. For example, there might be interior damage that the evaluation team did not see.

Steps to Take to Ensure Damage Is Properly Repaired

In the aftermath of disasters in which large numbers of buildings are damaged or destroyed, there are likely to be opportunists posing as legitimate contractors willing to assist you in making needed repairs. The best way to avoid these unscrupulous or illegal operators is to ask for proof of both a current state contractor's license and a certificate of worker's compensation insurance. Although this evidence cannot necessarily ensure top quality workmanship, it certainly will eliminate other problems that can result from using the services of either uninsured or unlicensed individuals. Prior to signing any contract to perform repairs, be sure that it contains a complete description of the scope of work and states that a building permit will be obtained. Contractors often require that a percentage of the full contract price be paid prior to commencing work, but it is generally neither necessary nor prudent to pay the entire amount in advance. For example, state law in California limits the advance payment that must be given to a contractor prior to commencing work to ten percent of the total contract price. Check with your local officials to determine whether similar laws exist in your area.

The local building inspection office will be a very busy and perhaps even a confusing place to go for permission to initiate repairs after a major disaster; nonetheless, it will always be the best source of repair and permit information. The specific rules that will apply to the reconstruction or repair of your building may be somewhat different than those normally used in a nondisaster situation. Since some requirements (e.g., fees) may be waived and others (e.g., soil or engineering reports) may be specially imposed, you should definitely inquire about what rules will apply to your specific location and extent of damage. Once you have obtained that vital information and understand what is required, you can then begin the process of hiring, as necessary, an architect, contractor, or engineer. An engineering geologist may also be needed when a building site has experienced scour or erosion or when the stability of a foundation is in question.

The next task is to locate, contact, and choose the various types of construction services you may need. Most architects, contractors, and engineers belong to either a regional or state association that can provide names, phone numbers, and perhaps some information on the type of work in which their members specialize. The building inspection office may also provide similar lists, but it is very unlikely that they will offer to recommend any specific company. Recommendations are perhaps best sought from other individuals, family, friends, or neighbors who have recently used the services of the type of professional you are seeking.

If you are attempting to make repairs on your own without the help of contractors, be aware that you will still need a building permit or similar authorization and must request the required inspections for that work. Certain minor cosmetic work (e.g., replacing cracked interior wall finish materials) may be exempted, but other repairs (e.g., fixing chimneys or repairing any damaged structural members) will likely need a permit. While this may seem bothersome, it will prevent challenges to the adequacy of the work when a property is sold.

Guidelines for Securing Disaster Assistance

The details, limitations, and eligibility requirements for various types of federal, state or local aid cannot be specifically listed in this document, because they are subject to change and are often unique to the circumstances of the situation. The best source for current information on these subjects will be the locally established disaster center, the local emergency management agency, or the local building department (much information may be posted on associated web sites).

Your first step should be to contact the claims office of your insurance company to determine if your loss is covered. You may also be eligible to make a claim for federal or state assistance to cover uninsured losses or deductibles that may apply to your coverage. Whether or not insurance coverage applies to your losses, you should document all the visible damage with photographs and a narrative of what each shows. Also keep a record of the nature and extent of any emergency repairs made by yourself or others immediately after the event. The importance of such documentation cannot be overstressed, because the full amount of any insurance settlement or financial assistance that may be available in the form of low-interest loans and, occasionally, grants, will require significant proof regarding both damage and repairs.

Damage to your home may be severe enough to require your family to relocate to temporary or even long term alternative housing. Information on the shelter locations can be obtained from the local government authorities. Other local nonprofit and community service organizations may also be providing aid including food and clothing, and state and county health departments may offer personal counseling.

If a Presidential declaration of a disaster is made, the Federal Emergency Management Agency (FEMA), in conjunction with local governments, will establish a local Disaster Application Center (DAC). These centers will normally begin functioning several days to a week after a disaster, and locations where applications for assistance can be made will be announced by newspapers and other media. Representatives from local, state, and federal agencies with disaster relief responsibility will be assigned to these centers.

FEMA will address the needs of owners or tenants facing long-term displacement from their principal housing. This assistance can take several forms, but often is provided by vouchers that cover a portion of the costs to obtain alternative existing housing. Business owners, and homeowners under a separate program, will be able to apply for loans from the federal Small Business Administration (SBA) at the Disaster Application Center. These loans are normally made at below-market interest rates and can be applied to repairing or replacing a building; however, loan eligibility is based on the ability of the borrower to repay.

K. PUBLIC INFORMATION: FLOOD CLEANUP/SAFETY

A Description of Typical House Flood Damages and Cleanup Requirements

The following flood cleanup information is from the Flood Safety Education Project at www.floodsafety.com, which promotes flood safety to driver education programs, homebuyers, those living in or near floodplains, the general public, and decision-makers. This is an extremely comprehensive resource that is free to the public and valuable to both the laymen and flood specialists.

When your house floods, the water can wreak havoc on the structure of the house, your personal belongings, and the health of the inside environment. Flood waters contain many contaminants and lots of mud. High dollar items can get ruined all at once, even with just an inch of water, for example: carpeting, wallboard, appliances, and furniture. A more severe storm or deeper flood may add damage to even more expensive systems, like: ducts, the heater and air conditioner, roofing, private sewage and well systems, utilities, and the foundation.

After a flood, cleaning up is a long and hard process.

Here is a list of common techniques for sanitizing and cleaning flooded items:

- First things first: call your insurance agent. If your insurance covers the damage, your agent will tell you when an adjuster will contact you. List damage and take photos or videotape as you clean. You'll need complete records for insurance claims, applications for disaster assistance and income tax deductions. Even if insurance does not cover your damages, there may be other disaster relief programs available to help you!
- Check the structure of the building. Check the foundation for settling, cracking or undermining. Look at the walls, floors, doors and windows to determine what repairs are necessary. Before entering the structure, make sure all electric, gas and oil valves are turned off.
- **Pump out the basement**. If your basement is full or nearly full of water, pump out just 2 or 3 feet of water each day. If you drain the basement too quickly, the pressure outside the walls will be greater than the pressure inside the walls. That may make the walls and floor crack and collapse.
- **Electrical system**. The system must be shut off and repaired and inspected by an electrician before it can be turned back on. Wiring must be completely dried out- even behind walls. Switches, convenience outlets, light outlets, entrance panel, and junction boxes that have been under water may be filled with mud.
- **Heating and cooling systems and ducts**. Will need inspection and cleaning. Flood-soaked insulation should be replaced.
- Water System. Clean drains, pipes, etc. Disinfect wells and the water system. The US
 EPA website http://water.epa.gov/drink/info/well/whatdo.cfm explains the process in detail.

- **Private sewage systems**. Flooding of a private sewage system can be a hazardous situation for homeowners. It may lead to a back-up of sewage in the home, contaminated drinking water and lack of sanitation until the system is fixed. When flooding or saturated soil conditions persist, a private sewage system cannot function properly. Soil treatment systems for wastewater rely on aerobic (with oxygen) regions to reduce the amounts of chemicals and living organisms (viruses, bacteria and protozoa). When the soil is saturated or flooded, those hazardous materials can enter the groundwater and your drinking water supply.
- **Contaminated mud**. Shovel out as much mud as possible; then use a garden sprayer or hose to wash away mud from hard surfaces.
- Roof damage and leaks.
 - Defective flashing: Flashing is the sheet metal used in waterproofing roof valleys, hips and the angle between a chimney and a roof. Wet spots near a chimney or outside wall may mean the leak is caused by defective flashing, narrow flashing or loose mortar joints. Look for corroded, loose or displaced flashing on sloping roof valleys and at junctions of dormers and roof.
 - Clogged downspouts or eaves: Check for choked downspouts. Accumulated
 water or snow on the roof above the flashing may cause a leak. Ice accumulations
 on eaves sometimes form ridges, which cause melting snow to back up under the
 shingles.
 - Cracks and deterioration: Roofing (especially wood or composition shingles)
 usually deteriorates first on southern exposures. Check southern slopes for
 cracking or deterioration.
 - Holes: Missing shingles or holes in the roofing may be causing wet spots. To find holes, check for a drip trail or spot of light coming through in the attic. Stick a nail, straw or wire through the hole to mark the spot on the outside.
- Clean and disinfect every surface. Scrub surfaces with hot water and a heavy-duty cleaner. Then disinfect with a solution of 1/4 cup chlorine bleach per gallon of water or a product that is labeled as a disinfectant to kill germs.
- Appliances. Appliances will get stains, odors, silt deposits, and gritty deposits and need to be serviced, cleaned and sanitized. Running equipment before it is properly cleaned could seriously damage it and/or shock you. Professional cleaning is recommended for electronics, TVs and radios, washing machines, dryers, dishwashers, and vacuum cleaners. The hard exterior can be hand cleaned. All metallic appliances that have been flooded should be properly grounded to prevent electric shock. Mud or dirt in a grounded outlet or adapter may prevent the grounding system from working, and you could be electrocuted.

Furniture and household items.

- Take furniture, rugs, bedding and clothing outside to dry as soon as possible. Use an air conditioner or dehumidifier to remove moisture or open at least two windows to ventilate with outdoor air. Use fans to circulate air in the house. If mold and mildew have already developed, brush off items outdoors to prevent scattering spores in the house. Vacuum floors, ceilings and walls to remove mildew, then wash with disinfectant. Wear a two-strap protective mask to prevent breathing mold spores.
- Mattresses should be thrown away.
- Upholstered furniture soaks up contaminants from floodwaters and should be cleaned only by a professional.
- Wood veneered furniture is usually not worth the cost and effort of repair.
 Solid wood furniture can usually be restored, unless damage is severe.
- Toys and stuffed animals may have to be thrown away if they've been contaminated by floodwaters.
- O Photographs, books and important papers can be frozen and cleaned later. They should be dried carefully and slowly. Wash the mud off and store the articles in plastic bags and put them in a frost-free freezer to protect from mildew and further damage until you have time to thaw and clean them or take them to a professional.

Ceilings and walls.

- Wallboard acts like a sponge when wet. Remove wallboard, plaster and paneling to at least the flood level. If soaked by contaminated floodwater, it can be a permanent health hazard and should be removed. If most of the wallboard was soaked by clean rainwater, consider cutting a 4- to 12-inch-high section from the bottom and top of walls. This creates a "chimney effect" of air movement for faster drying. A reciprocating saw with a metal cutting blade works well, but use only the tip of the blade and watch out for pipes, ductwork and wiring.
- Plaster and paneling can often be saved, but air must be circulated in the wall cavities to dry the studs and sills.
- o The three kinds of insulation must be treated differently. Styrofoam might only need to be hosed off. Fiberglass batts should be thrown out if muddy but may be reused if dried thoroughly. Loose or blown-in cellulose should be replaced since it holds water for a long time and can lose its antifungal and fire retardant abilities.
- **Floors**. With wood subflooring, the floor covering (vinyl, linoleum, carpet) must be removed so the subflooring can dry thoroughly which may take several months. Open windows and doors to expose the boards to as much air as possible.

- Carpeting: Clean and dry carpets and rugs as quickly as possible. If sewage-contaminated floodwater covered your carpeting, discard it for health safety reasons. Also discard if the carpet was under water for 24 hours or more. To clean, drape carpets and rugs outdoors and hose them down. Work a disinfecting carpet cleaner into soiled spots with a broom. To discourage mildew and odors, rinse with a solution of 2 tablespoons bleach to 1 gallon water, but don't use this solution on wool or nylon carpets. Dry the carpet and floor thoroughly before replacing the carpet. Padding is nearly impossible to clean so should be replaced. If the carpet can't be removed, dry it as quickly as possible using a wet/dry vacuum and dehumidifier. Use a fan to circulate air above the carpet, and if possible, lift the carpet and ventilate with fans underneath.
- Vinyl flooring and floor tile may need to be removed to allow drying of subfloor.
- Wood floors: Wooden floors should be dried gradually. Sudden drying could cause cracking or splitting. Some restoration companies can accelerate drying time by forcing air through the fluted underside of hardwood floorboards. Remove hardwood floor boards to prevent buckling. Remove a board every few feet to reduce buckling caused by swelling. Clean and dry wood before attempting repairs.

L. PUBLIC INFORMATION: DEBRIS AND DEMOLITION GUIDELINES

Guidance for Disposal of Private Property

This form is a sample only – intended to be modified to specific circumstances following consultation with jurisdiction's Chief Elected Official or Emergency Management Coordinator.

Jurisdiction:	Date:
Building Code Official:_	

Please separate items to the following categories before placing at curb:

- White goods or household appliances, including televisions and computers
- Food waste and other household garbage
- Household hazardous waste, such as cleaners, paints, poisons, fuels, chemicals, batteries, smoke detectors, air conditioners, etc.
- Trees and brush
- Construction debris, such as windows/doors, siding, framing materials, insulation, flooring, sheetrock, carpeting, etc.
- Recyclable items, such as plastic, aluminum, corrugated cardboard, paper, etc.
- Content debris, such as clothing, dishes, toys, furniture, etc.

Demolition permits must be obtained from Building Code Official prior to removal of buildings. Please keep the following in mind:

- Check with your insurance company for coverage of demolition and debris removal
- An asbestos inspection may be needed prior to demolition and disposal of debris; check with Building Code Official and Contractor removing debris
- Contractor completing your demolition should use the following form/report for each day worked and provide a copy to the Building Code Official

DEMOLITION COMPLETION REPORT

Contractor:							
Demolition Address:							
Covered by Homeowner/Flood Insurance: YES NO (please circle one)							
	H	aul Information					
Date:	_ Truck #:	Driver:					
Hauled to Facility	y:						
Type of Debris: _		Load Size: _		Total Loads:			
Date:	_ Truck #:	Driver:					
Hauled to Facility	y:						
Type of Debris: _		Load Size: _		Total Loads:			
Date:	_ Truck #:	Driver:					
Hauled to Facility	y:						
Type of Debris: _		Load Size: _		Total Loads:			
Date:	_ Truck #:	Driver:					
Hauled to Facility:							
Type of Debris: _		Load Size: _		Total Loads:			