



# SUBSTANTIAL DAMAGE MANAGEMENT PLAN (SDP)

*Prepared for:* [COMMUNITY'S GOVERNING BODY]

*Prepared by:* [COMMUNITY]

*Date:* [DATE]

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- Appendix A Substantial Damage Estimator Records
- Appendix B: Potential Substantial Damage Structures List
- Appendix C: Potential Substantial Damage Structures Map
- Appendix D: SDE Planning and Preparation Checklists
- Appendix E: SDE Template Documents
- Appendix F: Residential Field Worksheet
- Appendix G: Non-Residential Field Worksheet
- Appendix H: Sample Stand Alone Damage Assessment Worksheet
- Appendix I: Sample Notice to Post on Structures
- Appendix J: Sample Press Release

Appendix may change based on community and necessary/ available documentation.

- **Appendix A** is suggested to utilize FEMA SDE software to track substantial damages and place a summarized output of data here.
- **Appendix B** is intended to house documentation of the list of all occupied structures within the SFHA which risk substantial damage.
- **Appendix C** is intended to include a map of the structures listed and documented in Appendix B.
- **Appendix D** is intended to contain checklists to be utilized for post-disaster planning and field preparations.
- **Appendix E** may include all additional documents which can be altered to fit a specific disaster or event.
- **Appendices F through J** were provided in the 2024 State of Missouri Flood Damage Assessment Packet and are included at the end of this template.

## ACRONYMS

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CRS	Community Rating System
CSD	Cumulative Substantial Damage
CSI	Cumulative Substantial Improvement
FEMA	Federal Emergency Management Agency
GIS	Geographical Information System
ICC	Increased Cost of Compliance
NFIP	National Flood Insurance Program
RL	Repetitive Loss
SD	Substantial Damage
SDE	Substantial Damage Estimate/Estimator
SDP	Substantial Damage Management Plan
SEMA	Missouri State Emergency Management Agency
SFHA	Special Flood Hazard Area; 1%-annual-chance floodplain
SI	Substantial Improvement

# INTRODUCTION

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Briefly introduce the plan and describe the community's motivation for its development. Sample introductory language can include the following:

The following Substantial Damage Management Plan (SDP) has been prepared by [COMMUNITY] to assist with meeting requirements of the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) regarding substantial damages (SD) and substantial improvements (SI). As a member of the NFIP, [COMMUNITY] is required to evaluate substantially damaged properties following any hazardous event, such as flooding, windstorms, fires, and other events that cause damage to a structure. As the administering agency for [COMMUNITY'S] Floodplain Management Ordinance, the [COMMUNITY] Planning Department has prepared this SDP to identify potentially vulnerable structures and plan for post-event actions, should the structures be substantially damaged.

Describe the formal process by which the community's governing body received the plan and by which the plan is made available to the state and the Federal Emergency Management Agency (FEMA) if requested. Sample language can include the following:

This plan was submitted to the [COMMUNITY'S GOVERNING BODY] on [DATE] by the [AGENCY/PERSON] via [DELIVERY METHOD (EMAIL, FAX, ETC.)] (See CRS #5). This plan is available for transmittal to SEMA's Floodplain Management Section and FEMA Region VII, if requested (See CRS #7).

Describe the key sections of the plan. Sample language can include the following:

This plan provides the [COMMUNITY'S] definitions of SD/SI, assesses vulnerable areas, identifies the roles and responsibilities of the [COMMUNITY'S] Substantial Damage Management Team, explains procedures for estimating and determining substantial damage, describes the process the [COMMUNITY] uses to track substantial damage and substantial improvement, outlines steps to take before and after a disaster, and details procedures for annual reporting. This report also outlines mitigation methods that could be applied to these at-risk areas to proactively reduce flood damage.

## PURPOSE

This section of the SDP allows for further discussion on the community's motivation for undertaking a strategy for managing substantial damage. Use this section to further elaborate on the purpose of the plan, as needed. Sample language can include the following:

This SDP will help the [COMMUNITY] manage and mitigate the impact of substantial damage from natural disasters. This plan helps increase awareness of flood risk areas, identifies vulnerable structures and neighborhoods, and ensures that there is a strategy in place for making damage determinations and enforcing the substantial damage requirements if a flood occurs. In addition, the plan fosters communication with residents and elected officials and helps develop long-term actions to mitigate properties and reduce future losses. If a flood does occur, the effort will be paid back many times over in efficiency, minimizing future damage, and building community resiliency.

An SDP furthermore ensures compliance with FEMA and NFIP regulations, enabling the [\[COMMUNITY\]](#) to maintain eligibility for federal flood insurance and assistance. It standardizes procedures for assessing damage, supports enforcement of building codes, and helps earn Community Rating System (CRS) credits for insurance discounts. This plan further includes annual reporting procedures to ensure continuous improvement and adaptation.

## **OVERVIEW OF SIX-STEP PLANNING PROCESS *(See CRS #3)***

The planning process for preparing the [\[COMMUNITY\]](#) Substantial Damage Management Plan was based on CRS planning requirements. This guidance is structured around a six-step planning process. The table below shows how the six-step planning process aligns with the sections of this document.

Planning Steps	Planning Tasks	Section within Plan Document
Step 1. Assess Vulnerability	a. Review Regulations	<a href="#">Section 1a.</a>
	b. Identify Risk	<a href="#">Section 1b.</a>
	c. List and Map Structures	<a href="#">Section 1c.</a>
Step 2. Assemble a Team	a. Identify Staff and Needs	<a href="#">Section 2a.</a>
	b. Organize Team	<a href="#">Section 2b.</a>
Step 3. Identify Post-Flood Actions	a. Coordination and Communication	<a href="#">Section 3a.</a>
	b. Substantial Damage Determination Process	<a href="#">Section 3b.</a>
Step 4. Build a Database	a. Collect Basic Building Information	<a href="#">Section 4a.</a>
	b. Pre-Populate FEMA's SDE Software <b>(See CRS SDP2)</b>	<a href="#">Section 4b.</a>
Step 5. Identify Pre-Flood Actions	a. Engage the public	<a href="#">Section 5a.</a>
	b. Explore mitigation alternatives <b>(See CRS SDP3)</b>	<a href="#">Section 5b.</a>
Step 6. Implement and Update the Plan	a. Annual evaluation reports	<a href="#">Section 6a.</a>
	b. Periodic update of the Plan	<a href="#">Section 6b.</a>

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# 1. VULNERABILITY ASSESSMENT

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During the first step of the SDP development process, **[COMMUNITY]** reviewed its current floodplain ordinance and regulatory authorities to ensure that the substantial damage regulations met or exceeded NFIP requirements. Additionally, **[COMMUNITY]** examined the areas within community where substantial damage is likely to occur and identified specific structures that are at risk of substantial damage.

## a. **Review of Substantial Damage Regulations and Definitions**

**[COMMUNITY]** has adopted the State of Missouri Model Floodplain Ordinance. The Ordinance can be found within **[CITE SPECIFIC DOCUMENT (SUCH AS (UNIFIED DEVELOPMENT ORDINANCE)) AND SPECIFIC SECTION WITHIN DOCUMENT]**, located at **[WEBSITE LINK, IF APPLICABLE]**.

**[SECTION NUMBER]** of the **[COMMUNITY'S] [ORDINANCE NAME]** includes definitions for SD/SI, (which **[INCLUDES/DOES NOT INCLUDE]** Cumulative Substantial Improvement). **[SECTION NUMBER]** designates the **[TITLE (EXAMPLE, CITY ENGINEER)]** as the **[COMMUNITY'S]** Floodplain Administrator and explains the related duties and responsibilities.

The Ordinance includes the following definitions:

- Cumulative Improvement (**See CRS #2**).
  - a) A structure may be improved (remodeled or enlarged) without conforming to current requirements for elevation so long as the cumulative value of all work done within the last \_\_\_\_\_ calendar years does not exceed fifty (50) percent of the structure's current market value. If the cumulative value of the improvement exceeds fifty (50) percent of the structure's current market value, the structure must be brought into compliance with Article 4, Section B(1) which requires elevation of residential structures to one (1) foot above the base flood elevation or the elevation/floodproofing of non-residential structures to one (1) foot above the base flood elevation.

Communities that are receiving or requesting CRS credit for Cumulative Substantial Improvement must refer to and explain that definition here and also describe the community's process for tracking damage and improvements cumulatively. Likewise, for a community that is requesting/receiving credit for having a lower threshold for substantial improvement (element LSI), that definition and any applicable procedures must be integrated into the community's substantial damage management plan and included in this section of the plan document.

- **"Repetitive Loss"** means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, equals or exceeds twenty-five percent of the market value of the structure before the damage occurred (**See CRS #1**).
- **"Substantial-Damage"** 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. The term includes Repetitive Loss buildings (see definition) (**See CRS #1**).

For the purposes of this definition, “repair” is considered to occur when the first repair or reconstruction of any wall, ceiling, floor, or other structural part of the building commences.

The term does not apply to:

- a) Any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the Code Enforcement Official and which are solely necessary to assure safe living conditions, or
- b) Any alteration of a “historic structure” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”
- c) Any improvement to a building.

- **“Substantial Improvement”** means any combination of reconstruction, alteration, or improvement to a building, taking place for a 10-year period, in which the cumulative percentage of improvement equals or exceeds fifty percent of the current market value of the building. For the purposes of this definition, an improvement occurs when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures, which have incurred “repetitive loss” or “substantial damage”, regardless of the actual repair work done (See CRS #1).

The term does not apply to:

- a) Any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the Code Enforcement Official and which are solely necessary to assure safe living conditions, or
- b) Any alteration of a “historic structure” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”

- **“Substantially Improved Existing Manufactured Home Parks Or Subdivisions”** is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced (See CRS #1).

Use this section to acknowledge any other pertinent ordinances as needed, such as those related to permit application processes, floodway development standards, floodproofing certification processes, duties of the local floodplain manager, enforcement of substantial damage, etc.

## **b. Identify Risk**

### **i. Flood History**

Provide a brief description of the primary flood risk and related flood damage history. Flood risk descriptions can be found in the Flood Insurance Study, the community's Local Hazard Mitigation Plan, or the U.S. Geological Survey National Water Information System.

According to the Flood Insurance Study for [COUNTY, MO], dated [DATE], runoff from [REGION] eventually drains into [WATERBODY]. Major floods occurred on [WATERBODY] in [YEAR(S)].

The [COMMUNITY] is located within the [WATERSHED(S)], both of which ultimately flow to the [WATERBODY].

The primary tributaries that experience flooding within the [COMMUNITY] include [LIST TRIBUTARIES].

### **ii. Prior Substantial Damage**

If available, the community should provide a short description and history of prior damage determinations, including the source of the damage, the number of affected structures, the damage determination method used, and the post-event actions taken (such as compliance or mitigation). In place of a description, communities that track cumulative substantial damage may include a local database for tracking damage in the plan. The tracking database should include a list of buildings that were damaged and the extent of the damage. Communities may also provide records from FEMA's Substantial Damage Estimator to show prior damage determinations.

Copies of the [COMMUNITY'S] substantial damage records from the FEMA SDE [VERSION] software can be found in Appendix [APPENDIX NUMBER].

## **c. Properties Vulnerable to Substantial Damage**

### **i. Structure Inventory**

Appendix [APPENDIX NUMBER] contains the [COMMUNITY'S] list of structures within the SFHA.

Further describe other pertinent details as needed, such as whether certain structures were included/excluded from the list, and why.

### **ii. Mapping of Structure Inventory**

Following a disaster event, [COMMUNITY] utilizes [GIS/PAPER MAPS/ETC.] to assist with determining substantial damage estimations. Exported copies of the maps showing the SFHA overlays are included in Appendix [APPENDIX NUMBER].

The inventory should include any structures in the community that are susceptible to being substantially damaged in a flood, which could include but are not limited to:

buildings in the mapped floodplain, buildings below the base flood elevation, buildings within a repetitive loss area, properties where previous substantial damage determinations have been made, and/or building that could meet the cumulative substantial improvement definition, if applicable.

Communities that have completed the Repetitive Loss Area Analysis (RLAA) will have already completed a map identifying the affected structures. The RLAA inventory can be used to meet this requirement; however, the substantial damage management plan must include all buildings in the community subject to potential substantial damage, even those that are not on the repetitive loss inventory. Likewise, all structures subject to substantial damage shall be included on the substantial damage list even if they are not on the repetitive loss inventory.

Due to the federal Privacy Act, public documents cannot be used to display structures determined to be susceptible to substantial damage through the use of FEMA flood insurance claim data or prior disaster assistance payments. In these instances, the map should only include general areas instead of specific structures.

Communities can use GIS to develop generalized maps showing potential substantial damage areas.

Communities that currently track cumulative substantial damage can use the inventory of structures with prior damage determination as part of the list required in this step.

### ***iii. Other Considerations***

*[COMMUNITY]* tracks cumulative substantial damage using the FEMA SDE *[VERSION]* software.

Describe further details as needed.

*[COMMUNITY]* tracks *[LIST ELEMENTS]* electronically using internal software.

Describe further details as needed.

*[COMMUNITY]* maintains a separate spreadsheet and set of maps to track the substantial damage and/or requested substantial improvements to repetitive loss properties within *[COMMUNITY]* limits to ensure privacy is maintained for these properties.

Use this section to describe additional considerations related to flooding, such as mapped areas of localized flood risk, urban flooding areas, small ponding areas, watershed drainageways, etc., as applicable. These locally mapped and regulated floodplain areas must be included in the substantial damage management plan.

Include adopted procedures for tracking cumulative damage and/or other improvements, if applicable.

#### **iv. General Description of Structure Inventory**

The building inventory in **[COMMUNITY]** consists of **[PERCENT]** residential and **[PERCENT]** non-residential.

The residential buildings in the **[COMMUNITY]** include **[SINGLE-FAMILY/MANUFACTURED HOMES/MULTI-FAMILY, ETC.]** types.

Approximately **[PERCENT]** of the **[COMMUNITY]** is zoned as residential, **[PERCENT]** is zoned as commercial, **[PERCENT]** is zoned as industrial, **[PERCENT]** is zoned as agricultural, and **[PERCENT]** is zoned as mixed-use.

The list of properties that could be substantially damaged due to floods can be included in the substantial damage management plan itself or provided as a separate document to attach to this plan.

It should be noted that subsequent Step 4 will require the list of properties developed under Task 1 to be populated with relevant building data needed to complete a damage assessment, such as address, owner, square footage, and building construction attributes. Therefore, a single populated database can meet the requirements of both Step 1 and Step 4. **SEE CRS SDP2:** It should further be noted that additional SDP2 credits (50 points) can be attained by a community by pre-populating FEMA's Substantial Damage Estimator (SDE) with data on all properties with the potential to be substantially damaged.

## 2. SUBSTANTIAL DAMAGE MANAGEMENT TEAM

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Describe the roles of various community departments, such as development services, building inspections, permitting, etc. in tracking substantial improvements. Describe departmental duties as they relate to floodplain management, ordinances, etc. Consider departmental communication responsibilities as they relate to relaying information on substantial damages to elected officials, business owners, residents, and the public.

Describe specific staff roles in the floodplain management process. Key community staff members may include, but are not limited to, the Floodplain Administrator/City Engineer, permit services staff, inspectors, certified floodplain managers, public relations, and the CRS Coordinator, for example.

Sample language can include the following:

The following [COMMUNITY] staff have primary responsibility for post-disaster response:

- [COMMUNITY] Floodplain Administrator – Oversees staff and gives final approval for any properties deemed to be substantially damaged. Conduct field reviews for permit applications as needed to verify repairs and level of damage are in accordance with the floodplain ordinance.
- [COMMUNITY] Engineering Staff – Identify areas that may be affected based on available rain and river gauge data, as well as field reconnaissance and customer requests. Work with inspectors to field verify and target outreach in these areas. Provide additional support for the review and issuance of permits for flood repairs as needed. Conduct field reviews for permit applications as needed to verify repairs and level of damage are in accordance with the floodplain ordinance.
- [COMMUNITY] Permitting Staff – Review and issue permits for flood repairs.
- [COMMUNITY] Inspectors – Field verify and identify structures in need of permits for repairs. Place door hangers and outreach materials as appropriate to notify of the need to request a permit for repairs. Additionally, field verify repair work is conducted in accordance with permits, consult with permittees on corrective actions needed to comply with permit and issue notices of violation as needed. Issue stop work orders for unpermitted work within the floodplain.
- [COMMUNITY] Public Information Officer – Provide updated outreach materials regarding flood cleanup safety and the need for permits via website, local and social media.

### a. Large Event Assistance

In addition to the identification of specific resources, this section should also demonstrate that the community has identified sufficient personnel to handle the substantial damage work following a major event, in terms of required work effort, including additional clerical or administrative effort.

[COMMUNITY'S] Substantial Damage Management Staff utilizes the FEMA-generated equation (# Affected Structures in SFHA x time (minutes) per inspection / # of teams =

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Total Time Needed for all Substantial Damage Inspections) to determine the amount of time and number of staff necessary to evaluate all affected structures in the SFHA. This equation helps staff determine if additional assistance is needed to complete the substantial damage field inspections on time, especially after a large-scale disaster event.

### ***b. Outside Resources***

Describe the roles of outside resources and/or additional staff support related to the floodplain management process.

The following additional resources may be contacted in the event that the Substantial Damage Management staff determine **[COMMUNITY'S]** staff are unable to complete post-disaster activities in a timely manner:

**SEMA Floodplain Management Section/State NFIP Coordinator's Office**  
Karen McHugh or Linda Olsen  
(573) 526-9129 or (573) 526-9115

**FEMA Region VII Office**  
Todd Tucker, Ally Bishop, or Christopher Parsons  
(816) 283-7528 or (913) 837-5220 or (816) 283-7980

**Missouri Mutual Aid Program**  
Address: 2302 Militia Drive P.O. Box 116 Jefferson City, Missouri 65102  
(573) 526-9100 or (573) 634-7966

Through this program, Missouri will allow emergency volunteers to be certified by the State Emergency Management Agency. Extra volunteers may also be provided and deployed from other nearby states through the Emergency Management Assistance Compact (EMAC), in case of an emergency. See additional information here:

[Mutual Aid for Building Departments: Region 7 \(fema.gov\)](#)

As a requirement of NFIP participation, **[COMMUNITY]** has developed a set of Floodplain Management Administrative Procedures that incorporate administrative actions related to substantial damage and are included in Appendix D of this SDP.

### 3. POST-FLOOD ACTIONS

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During the third step of the SDP development process, **[COMMUNITY]** developed clear directives and strategies for **[COMMUNITY'S]** post-event actions. This section details how **[COMMUNITY]** will ensure that the following essential components of substantial damage management are addressed: team training, communication with local officials and property owners, field inspection and damage determination processes, and compliance with ordinances and procedures when a structure is determined to have been substantially damaged.

#### **a. Team Training**

The community can devise and conduct its own training sessions or rely on existing federal and state substantial damage training. SEMA's Training & Exercise Management System (STEMS) offers many training opportunities throughout the year. See [STEMS \(sematraining.com\)](http://sematraining.com) to register for any upcoming trainings. SEMA also offers multiple workshops each year for FEMA's SDE software (see <https://sema.dps.mo.gov/programs/floodplain/workshops.php>). Additionally, FEMA's Emergency Management Institute (EMI) also offers independent study and online training on substantial damage and substantial improvement. The community should determine what combination of training best suits the needs of its substantial damage management team. Sample language can include the following:

The **[COMMUNITY]** staff responsible for substantial damage management are outlined in Section 2 of this plan. All staff are trained not only in the SDP process but also in the roles and responsibilities of each team member before, during, and after a flood. The training is provided **[FREQUENCY]** and utilizes materials generated internally from information available from **[SOURCE, SUCH AS FEMA, OR THE STATE]**.

#### **b. Communications Plan**

##### **i. Communication with Elected Officials**

Describe any routine communication requirements, such as status updates to elected officials, which may be required by the community. Sample language can include the following:

**[TITLE, SUCH AS FLOODPLAIN MANAGER]** is responsible for communicating with elected officials regarding flood events and disaster-related damages. This communication must occur in a timely manner following an event so that the elected officials will be prepared to properly respond to community concerns. The elected officials should be provided with information related to the substantial damage inspection process, and cleanup, repair, rebuild, and improvement expectations and requirements.

##### **ii. Communication with the Public**

It may prove helpful to supply the public with guidance and assistance on topics such as cleanup, repairs, and how the damage assessment and determination process is likely to unfold.

Sample outreach materials are available from the State NFIP Coordinator, FEMA, and other communities and it is recommended that these be obtained in advance, tailored to

the community's particular needs, and included in the plan. Resources include:

- SEMA's *Quick Guide for Floodplain Management in Missouri* helps local officials and citizens understand why and how Missouri communities must manage development in floodplains to protect people and property (see [Missouri Quick Guide -- PRINT Version \(mo.gov\)](#)).
- SEMA's Website for Floodplain Management/Floodplain Insurance Programs provides significant resources NFIP and insurance questions (see [Missouri Floodplain Management/Floodplain Insurance Programs | SEMA \(mo.gov\)](#)).
- SEMA's *After the Flood Quick Guide* is a resource for homeowners and residents who have experienced a recent flood event (see [Argh! I Just Flooded! Now What? \(mo.gov\)](#)).
- The Missouri Department of Natural Resources (MoDNR) also has a webpage dedicated to how to respond and recover from all natural disasters. This site is also to residents who have recently experienced flooding. ( [Disaster Response and Recovery | Missouri Department of Natural Resources \(mo.gov\)](#)).
- The Missouri Floodplain and Stormwater Managers Association (MfSMA) also provides floodplain management resources and tools (see [MfSMA - Training & Education Opportunities](#)).

Sample language can include the following:

*[TITLE, SUCH AS FLOODPLAIN MANAGER]* is responsible for communicating with the public, including affected residents and business owners, following an event. Following a disaster, the *[COMMUNITY]* will send a letter to property owners located within the SFHA informing them of upcoming damage inspections and permitting requirements. An inspection notice letter is included in Appendix *[APPENDIX NUMBER]*.

### **c. Field Inspection and Damage Determination Processes**

This section details the process following a substantial damage event in *[COMMUNITY]*, which includes assessing the situation, conducting substantial damage determinations, complying with procedures for substantially damaged structures, consulting the local attorney, and updating the state and FEMA.

#### **i. Assessing the Damage**

Sample language can include the following:

After an event, the *[TITLE, SUCH AS FLOODPLAIN MANAGER]*, is responsible for touring the damaged areas within the SFHA as soon as safely feasible and coordinating building inspections with the *[TITLE, SUCH AS EMERGENCY MANAGER]*.

Field inspections will be conducted as soon as possible after an event, before the structures are cleaned off, so that high water marks and flood depths can be more accurately documented for the structure.

Initial screenings are performed by *[DESCRIBE PROCESS, SUCH AS WALKING*

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*ALONG IMPACTED AREAS AND VIEWING STRUCTURES FROM STREET, FOR EXAMPLE]. Damages are estimated based on the high-water mark (in the case of a flood) or other characteristics such as roof damage (in the case of a high-wind event). Additionally, photos are taken of affected structures [INCLUDE EXTRA INSTRUCTIONS AS NEEDED].*

*A [TYPE OF MATERIAL, SUCH AS A PRINTED MAP, OR A TABLET] is brought to the initial screenings and the inspectors record the locations of the damaged structures and high-water marks [ADD OTHER DETAILS AS NEEDED, SUCH AS THE DEVELOPMENT OF A PHOTO LOG].*

The plan should identify who will be doing these initial field inspections and how they will be conducted. The plan should be specific in terms of guiding the deployment of resources, keeping in mind that certain areas may be more likely to be immediately accessible following an event.

The plan should also detail the process by which the recorded information will be incorporated into community records.

Sample language can include the following:

*During the initial screening, each observed [STRUCTURE/AREA] is marked according to its damage-screening designation as follows: [DESCRIBE SPECIFIC CATEGORICAL DAMAGE DEFINITIONS, SEE GUIDANCE NOTE BELOW].*

The plan should discuss specific procedures for the initial survey of damaged structures, based on damage levels set by the community. One option, for example, is to roughly categorize buildings by the extent of damage observed, such as:

- Obvious substantial damage (more than 60% damaged),
- Potential substantial damage (40% to 60% damaged), and
- Not substantially damaged (less than 40% damaged).

A subsequent step could be to prioritize resources to the top two levels of damage and re-visit the less-damaged buildings later, if needed. Remember, communities that track cumulative substantial damage must have a process in place to make damage assessments, document the damage, and track the damage. That process should be detailed in the substantial damage management plan.

The plan should explain how damaged structures are to be identified on a map and what types of notes need to be taken on each structure to prepare for damage determination field work. The map and list of damaged buildings, in turn, will be used to help prioritize work and identify how many team members will be needed. The list of properties and the map completed in Step 1 will help the community think through how it wants this process to work.

Sample language can include the following:

*During the initial screenings, [DESCRIBE THE PROCESS OF NOTIFYING OWNERS THAT DAMAGE HAS OCCURRED, SUCH AS POSTING NOTICES ON DOORS OR USING DOOR HANGERS]. An example of the [COMMUNITY'S] public notice is included in Appendix F.*

In compliance with FEMA regulations, no permits are issued by the [COMMUNITY] for structure repair on affected structures until a damage determination is completed.

## ***ii. Conducting Substantial Damage Determinations***

Sample language can include the following:

[COMMUNITY'S] strategy for conducting substantial damage assessments consists of determining the cost of the damage, determining the structure's market value, comparing the cost of damage and market value to the substantial damage threshold adopted in the local ordinance, and requiring owners to obtain permits and bring substantially damaged building into compliance.

Following a damage event, [COMMUNITY] inspection teams walk the SFHA and perform field inspections in their assigned areas. More experienced staff are assigned to areas that are designated as experiencing a greater degree of damage. Appendix [APPENDIX NUMBER] includes a copy of a FEMA-created worksheet that the [COMMUNITY] uses during substantial damage field assessments, along with guidance on estimating damages and percentages. A list of items that should be considered during the substantial damage estimate is included in Appendix [APPENDIX NUMBER].

The substantial damage plan should identify who does what to implement the strategy, who has the final say on decisions, how long it is expected to take, what steps will be taken to coordinate with utility companies, and more.

The substantial damage management plan should estimate the time needed to finish assessing the extent to which buildings are damaged, which may be considerable. It should also specify how residents are to be made aware of the expected time frame for damage determinations and permitting, so they can plan their repair, recovery, and mitigation measures.

Damage estimates need to include all costs required to return structures to their pre-damaged condition, regardless of an owner's intention to do so or not.

If a structure is determined to be unsafe during the inspection, the structure will be posted with a notice attached directly to the affected structure. A copy of such notice is included in Appendix [APPENDIX NUMBER].

Following field inspections, [COMMUNITY] staff contacts [COMMUNITY PROPERTY ASSESSOR'S OFFICE] to request the market value of affected structures. This information is recorded with the substantial damage determination.

Upon completion of the field inspections and market value research, [COMMUNITY] utilizes the FEMA SDE [VERSION] software to estimate repair costs. If the repair costs from the [INDIVIDUAL EVENT/CUMULATIVE TRACKING] are determined to be greater than or equal to 50% of the market value of the structure, then the structure is considered to be substantially damaged.

If the community tracks substantial damage and improvements cumulatively, the estimated repair costs are added to any previous cost of damage or improvement that the structure has incurred over the previous 10-year period.

The community permit official should review permit procedures and there should be a clear understanding that no permit is to be issued for building repair until a damage determination has been made.

To ensure that damage determinations are completed, the plan should assemble checklists, forms, and templates for inspection notices, permit applications, and other documentation that will be needed. Examples of these documents can be obtained from state substantial damage documents or from various FEMA publications. The procedure for notifying residents of the damage determination should be explained in the plan.

### ***iii. Complying with Procedures for Substantially Damaged Structures***

The plan should explain how residents will be notified of their damage determination, how the appeals process will work, and who will ensure compliance. FEMA recommends that letters be sent to property owners to communicate substantial damage determinations. The letter should also provide property owners with direction on how to bring their structures into compliance. This letter is a requirement for owners who choose to file Increased Cost of Compliance (ICC) claims to help defray the cost of bringing flood-damaged buildings into compliance. An ICC claim will require that specific information be included in the substantial damage letter.

This section of the plan should identify **HOW** the community will ensure compliance with the procedures for substantial damaged structures. Reference the section of your local floodplain management ordinance which addresses penalties for violation (see Article 6 of the SEMA's Model Floodplain Management Ordinances).

Communities that have prepared the permit documents and guidance letters before an event have the most success with compliance, quick recovery, and mitigation. These materials should be part of the plan.

### ***iv. Consulting the Local Attorney***

The *[COMMUNITY'S] [TITLE, SUCH AS FLOODPLAIN ADMINISTRATOR]* shall contact the *[COMMUNITY'S] Attorney's Office* to inform them that *[ADD DETAILS AS NECESSARY (FIELD INSPECTORS ARE ENTERING PRIVATE PROPERTY, SUBSTANTIAL DAMAGE DETERMINATIONS ARE IN PROCESS, VARIANCES MAY BE REQUESTED BY PROPERTY OWNERS, ETC.)]*.

This section should detail the process by which the community attorney is made aware of the substantial damage regulations, the community's enforcement procedure, and the determination process. The attorney should be made aware of field inspectors needing to enter private property. The attorney may be needed to defend substantial damage determinations or enact a community moratorium.

Penalties for non-compliance should be clearly stated in the plan. Reference the section of your local floodplain management ordinance which addresses penalties for violation (see Article 6 of the SEMA's Model Floodplain Management Ordinances).

### ***v. Updating the State and FEMA***

*Within [NUMBER] days following an event, the [COMMUNITY'S] [TITLE, SUCH AS*

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*ENVIRONMENTAL SPECIALIST*] submits electronic copies of any substantial damage documents to both SEMA and FEMA Region VII.

The community's plan must include a procedure for transmitting updates to the State NFIP Coordinator and the FEMA Regional Office, if such updates are requested. Although it is not required for CRS credit, it would be helpful if the plan included a process and schedule for automatically submitting periodic updates to those two entities. To make things simpler after a flood, the plan could identify in advance which person in which community office would have responsibility for developing such updates, and at what point (for example, 30 days after the flood, 90 days post-flood, and 180 days post-flood), contact information for the NFIP state office and the FEMA Region, and how such an update is to be transmitted (email, hard copy, etc.).

## 4. PROPERTY DATABASE

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A substantial damage database can be as simple as a table, either in a hard copy or digital format, if the community has only a handful of buildings at risk of substantial damage. For communities with more at-risk structures, a stand-alone digital spreadsheet or a part of a layer of the community GIS system likely would be a better alternative.

**SEE CRS SDP2:** FEMA's SDE tool provides another streamlined way to store and retrieve extensive property-based data. Communities that use FEMA's SDE to fulfill the Step 4 requirement may also be eligible for SDP2 credit. Communities that wish to request SDP2 credit in the future can save time by organizing and populating their basic, Step 4 database so that it is consistent with the format of FEMA's SDE software.

Choose either a. Simple Database or b. FEMA SDE Database for inclusion in the plan, depending on the options as noted above.

### **a. Simple Database**

Beyond the basic information listed below, communities should include in the database any additional items that will help them manage their substantial damage potential. This could include fair market value, lowest-floor and/or first-floor elevations, or other similar items. Be sure to document the source of the property information such as County Assessor, etc.

Information regarding lowest-floor and first-floor can be obtained from the Elevation Certificate (see [Understanding Elevation Certificates | FEMA.gov](#)).

Sample language can include the following:

In Step 1, [COMMUNITY] developed a list and map of properties that could be substantially damaged, included in Appendix [APPENDIX NUMBER]. In this step, [COMMUNITY] developed that list into a basic database of information needed to complete a damage determination for each of the buildings, in the event of damage.

The substantial damage property database includes the following fields:

- Building ownership;
- Property identification number (if available);
- Building address;
- Building type (residential, non-residential, etc.);
- Number of stories;
- Foundation type; and
- Area (square footage).

### **b. SDE Database (See CRS SDP2)**

Beyond the basic information listed below, communities should include in the database any additional items that will help them manage their substantial damage potential. This could include fair market value, lowest-floor and/or first-floor elevations, or other similar items. Sample language can include the following:

Note, communities MAY NOT include NFIP repetitive loss or claims data in the substantial damage database. The NFIP policy information that is supplied to the community is protected by the federal Privacy Act. The database may, however, note which properties are included in a “repetitive loss area”.

Data that the community has not been able to locate, or is planning to acquire in the future, should be discussed in the plan. For example, some communities do not use property index numbers, or square footage may not be available from records. In those situations, a short explanation of the missing data should be made in the plan. It is assumed that communities will expand or otherwise improve their databases for the required annual evaluation report or at the time of a scheduled plan update. Additional building or property information should be included in the database as it becomes available.

Sample language can include the following:

In Step 1, [COMMUNITY] developed a list and map of properties that could be substantially damaged included in Appendix [APPENDIX NUMBER]. In this step, [COMMUNITY] developed this list into a comprehensive database and loaded it into FEMA’s SDE. Included in the database are all properties located within the SFHA.

Copies of the SDE [VERSION] records are included in Appendix [APPENDIX NUMBER].

## 5. PRE-FLOOD ACTIONS

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Developing this SDP requires **[COMMUNITY]** to take at least one action to educate the community about substantial damage and/or substantial improvement requirements.

### a. Education and Outreach

During this step of the planning process, the community can determine which pre-event actions it wants to take; engage the local public information officer in planning those actions; and prepare needed handouts and education materials in advance. Examples of these items can be found in substantial damage guidance booklets.

As previously noted, additional resources include:

- SEMA's *Quick Guide for Floodplain Management in Missouri* helps local officials and citizens understand why and how Missouri communities must manage development in floodplains to protect people and property (see [Missouri Quick Guide -- PRINT Version \(mo.gov\)](#)).
- SEMA's Website for Floodplain Management/Floodplain Insurance Programs provides significant resources NFIP and insurance questions (see [Missouri Floodplain Management/Floodplain Insurance Programs | SEMA \(mo.gov\)](#)).
- SEMA's *After the Flood Quick Guide* is a resource for homeowners and residents who have experienced a recent flood event (see [Argh! I Just Flooded! Now What? \(mo.gov\)](#)).
- The Missouri Department of Natural Resources (MoDNR) also has a webpage dedicated to how to respond and recover from all natural disasters. This site is also to residents who have recently experienced flooding. ( [Disaster Response and Recovery | Missouri Department of Natural Resources \(mo.gov\)](#)).
- The Missouri Floodplain and Stormwater Managers Association (MfSMA) also provides floodplain management resources and tools (see [MfSMA - Training & Education Opportunities](#)).

Step 5 must include at least one of the following actions the community will take to educate the community about substantial damage/improvement requirements.

Although this is not an exhaustive list, some examples of pre-event actions are listed below:

- Annual substantial damage training for the members of the substantial damage team;
- A community public meeting on substantial damage and mitigation options;
- Information about substantial damage and substantial improvement provided via newsletters, social media, information kiosks, etc.;
- Distribution of handouts or letters to property owners; and
- Communication with elected officials about community responsibilities regarding substantial damage and, if applicable, about cumulative substantial damage.

Sample language can include the following:

**In an effort to engage with the community and provide education to the public related to**

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substantial damage/improvement requirements, [COMMUNITY] has adopted the following practices: [LIST ACTIONS]

Templates for these materials are provided in Appendix [APPENDIX NUMBER].

**b. Mitigation Considerations (See CRS SDP3)**

One of the principal ways by which a community can address substantial damage before a flood or other event is by taking mitigation actions or encouraging property owners to do so.

If a community systematically considers mitigation alternatives for each of the substantial damage buildings, neighborhoods, or areas identified in Step 1, it may receive additional CRS credit under sub-element SDP3.

Sample language can include the following:

[COMMUNITY] has not yet identified mitigation actions to address the inventory of potentially substantially damaged buildings.

Alternatively, sample language can include the following:

[COMMUNITY] has identified mitigation alternatives for each of the substantial damage properties, as follows [DESCRIBE MITIGATION ALTERNATIVES FOR EACH PROPERTY].

## 6. PLAN MAINTENANCE

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This section describes how the *[COMMUNITY]* will implement and update the plan, to include procedures for annual evaluation and reporting, communicating the SDP to the *[GOVERNING BOARD, SUCH AS CITY COUNCIL]*, updating the SDP, and adherence to the Privacy Act.

### a. Annual Evaluation and Reporting (See CRS #4)

On an annual basis, the *[TITLE, SUCH AS FLOODPLAIN ADMINISTRATOR]*, is responsible for evaluating the SDP and preparing an annual report. The annual evaluation process includes a review of the six planning steps, including: *[LIST ITEMS]*.

The annual report documents the evaluation process by identifying which portions of the SDP remain valid and effective, explaining whether pre-event action items need to be updated, providing a description of what was implemented (or not) during the reporting period, and recommending changes, if necessary. Any flood damage that occurs during the reporting period are also documented in the annual evaluation report.

A sample annual evaluation report is available through the CRS Resources website. This fillable evaluation report template is available here: [sdp\\_eval\\_template.docx \(live.com\)](sdp_eval_template.docx (live.com)).

### b. Communicating the SDP (See CRS #5)

On a *[FREQUENCY]* basis, the annual evaluation report and updated SDP (if developed), are presented to and shared with the *[COMMUNITY'S] [GOVERNING BOARD, SUCH AS CITY COUNCIL]* and posted on the *[WEBSITE/PLATFORM]*.

Credit criterion (5) requires that the plan be submitted to the community's governing body, but other avenues for promoting awareness of the substantial management issues and engaging local officials should be considered and discussed in the plan.

### c. Updating the SDP (See CRS #6)

During the annual evaluation of the SDP, the *[COMMUNITY'S] [TITLE, SUCH AS FLOODPLAIN ADMINISTRATOR]* determines if an update to the SDP is needed. The SDP is updated at least once every five years unless the *[TITLE, SUCH AS FLOODPLAIN ADMINISTRATOR]* determines the SDP needs to be updated more frequently. Any flood damage or substantial damage that occurs requires an update to the SDP.

It is recommended that the SDP be reviewed and updated at least every five years. Special consideration should be given to updating the plan after a flood or other hazardous event.

### d. Adherence to the Privacy Act

If there is any personally identifiable information in the SDP, the supporting data to the SDP, or the annual evaluation report, a summary report is prepared as aggregate data that adheres to the Privacy Act. The summary report is then shared with *[GOVERNING BODY, SUCH AS CITY COUNCIL]* during one of the *[GOVERNING BODY]* meetings and posted to the *[COMMUNITY'S]* website.

## CRS ACTIVITY POINTS

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Through the NFIP's Community Rating System (CRS) Activity 512.d, a community may receive up to 140 points for the preparation and implementation of a substantial damage management plan (SDP). Three levels of credit are available. The maximum credit is a total 140 points, the sum of these three components:

Credit Element	Credit Points	Description
SDP 1	Up to 40	Base credit for development of an SDP. This credit must be obtained before a community is eligible for the other two levels.
SDP 2	Up to 50	Pre-population of the FEMA Substantial Damage Estimator (SDE) software with data on all properties with the potential to be substantially damaged.
SDP 3	Up to 50	Consideration of pre-event mitigation alternatives for all properties with the potential to be substantially damaged.

CRS credit is dependent upon the community's following an appropriate process. Both the steps for developing a substantial damage management plan and the content of the plan are important for CRS credit. Seven basic criteria must be met to receive SDP1 credit:

- 1. Use appropriate definitions for Substantial Damage.** The SDP must be developed using a definition of substantial damage that meets or exceeds the NFIP definition.
- 2. Address Cumulative Substantial Improvements and/or lower Substantial Damage thresholds, if applicable.** If a community is receiving credit for Cumulative Substantial Improvement (CSI) under CRS Activity 430, then the SDP must reference the community's Cumulative Substantial Damage (CSD) definition credited under Activity 430 and describe the process for tracking CSI. If a community is receiving credit for having a lower threshold for Substantial Improvement, then the definition of the lower Substantial Improvement must be referenced.
- 3. Use the CRS six-step planning process to generate the plan.** The SDP must be the outcome of the CRS-defined six-step planning process. All steps, outlined in the next section are required, but steps 2-5 do not have to be completed in the order listed. When the six-step process is followed, the seven credit criteria will be met.
- 4. Prepare an annual SDP evaluation report.** The annual evaluation report must review the plan's pre-event action items, describe which of those items were implemented (or not implemented), and recommend changes, as appropriate. The report should highlight any flood damage that occurred since the previous report, address any changes or improvements to the plan resulting from the event, discuss any updates to the database of properties at risk of substantial damage, and note any changes to the community's regulations that affect substantial damage or substantial improvements.
- 5. Inform elected officials.** The SDP does not need formal approval or adoption by the City Council, but a copy of the SDP must be submitted to the City Council, along with each annual evaluation report and any updates to the SDP. However, if either the SDP or annual report are prepared using sensitive or confidential data obtained by FEMA, then a summary report must be prepared for the City Council in lieu of the SDP or annual report.

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- 6. Revise and update the SDP, as appropriate, and make current versions available.**  
The most current version of the SDP, including review of the six planning steps, must be provided to FEMA during the CRS cycle verification visit. If no update or revision has been made to the SDP, the annual evaluation report is required to be submitted indicating that the previous version of the SDP remains in effect.
- 7. Make the SDP available to the Missouri State Emergency Management Agency (SEMA) and FEMA.** A copy of the current SDP must be provided to the SEMA NFIP Coordinator and the FEMA Region VII Office, if requested.

## Appendix F: Residential Field Worksheet

### RESIDENTIAL/MANUFACTURED HOMES SDE DAMAGE INSPECTION WORKSHEET

#### Building Address

Owner First Name: \_\_\_\_\_ Owner Last Name: \_\_\_\_\_

Street Number: \_\_\_\_\_ Street Name: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

#### Mailing Address      Check here if same as above: \_\_\_\_\_ (IF KNOWN)

If different: Write mailing address here: \_\_\_\_\_ Have Right of Entry form returned Yes No  
Initial here to give right to enter \_\_\_\_\_  
Date permission given to enter \_\_\_\_\_

#### Additional Structure Information: (BEFORE DAMAGE OCCURRED) CHECK ONE in Each Category

Quality of Construction: (When first built) \_\_\_\_\_ Low \_\_\_\_\_ Average \_\_\_\_\_ Excellent

Resident type: \_\_\_\_\_ Single Family \_\_\_\_\_ Town or Row House \_\_\_\_\_ Manufactured House

Foundation: \_\_\_\_\_ Continuous Wall w/Slab (Standard) \_\_\_\_\_ Basement \_\_\_\_\_ Crawlspace \_\_\_\_\_

Piles \_\_\_\_\_ Slab-on-Grade \_\_\_\_\_ Piers and Posts

Superstructure: \_\_\_\_\_ Stud-Framed (Standard) \_\_\_\_\_ Common Brick \_\_\_\_\_ ICF \_\_\_\_\_ Masonry

Roof Covering: \_\_\_\_\_ Shingles – Asphalt (Standard) \_\_\_\_\_ Wood \_\_\_\_\_ Clay tile \_\_\_\_\_ Standing Seam (Metal)

\_\_\_\_\_ Slate

Exterior Finish: \_\_\_\_\_ Siding or Stucco (Standard) \_\_\_\_\_ Brick Veneer \_\_\_\_\_ EIFS

\_\_\_\_\_ Common brick, structural \_\_\_\_\_ None

HVAC System: \_\_\_\_\_ Heating and/or Cooling \_\_\_\_\_ NONE \_\_\_\_\_

Story: \_\_\_\_\_ One Story (Standard) \_\_\_\_\_ Two or More Stories

Depth of Flood Above ground: \_\_\_\_\_ (estimated to nearest foot) IF KNOWN

Depth of Flood Above First Floor (estimated to nearest foot) \_\_\_\_\_ IF KNOWN

No Physical Damage (Check here if none). \_\_\_\_\_

Duration of Flood: \_\_\_\_\_ Hours \_\_\_\_\_ Days

Date Damage Occurred (MM/DD/YYYY) \_\_\_\_\_

CAUSE of DAMAGE \_\_\_\_\_ Fire \_\_\_\_\_ Flood \_\_\_\_\_ Flood & Wind \_\_\_\_\_ Seismic \_\_\_\_\_ Wind

Has NFIP Insurance: \_\_\_\_\_ YES; \_\_\_\_\_ NO (IF KNOWN)

Has Photos: \_\_\_\_\_ Yes; \_\_\_\_\_ No How Many photos \_\_\_\_\_

Additional Structure Information: (NOTES) (Ex. Has brick fireplace. All wood floors)

**Depreciation Rating: (Wear & Tear)** 1. Requires Extensive Repairs, 2. Requires some Repairs, 3. Average Condition 4. Above Average Condition 5. Excellent Condition

**NOTES:**

<b><u>ELEMENT PERCENTAGES</u></b>	<b><u>% DAMAGED</u></b>
Foundation	_____
Superstructure	_____
Roof Covering	_____
Exterior Finish	_____
Interior Finish	_____
Doors & Windows	_____
Cabinets & Countertops	_____
Floor Finish	_____
Plumbing	_____
Electrical	_____
Appliances	_____
HVAC	_____
Skirting/Forms/Piers ( <b>MH only</b> )	_____

**Inspectors Name:** \_\_\_\_\_ **Date of Inspection:** \_\_\_\_\_  
MO/DD/YR

**Inspectors Phone:** \_\_\_\_\_

**ANY NOTES: (No one sees this form but officials)**

## Appendix G: Non-Residential Field Worksheet

### NON-RESIDENTIAL SDE DAMAGE INSPECTION WORKSHEET

#### Building Address

---

Owner First Name: \_\_\_\_\_ Owner Last Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

#### Mailing Address

**Check here if same as above:** \_\_\_\_\_

If different: Write mailing address here: \_\_\_\_\_ Have Right of Entry form returned Yes No  
Initial here to give right to enter \_\_\_\_\_  
Date permission given to enter \_\_\_\_\_

Year of Construction \_\_\_\_\_ Number of Stories \_\_\_\_\_, 1 Story \_\_\_\_\_, 2 thru 4 \_\_\_\_\_, 5 or More \_\_\_\_\_

#### Structure Use

---

**Circle one:** Foundation: \_\_\_\_\_ Continuous Wall w/Slab (Standard) \_\_\_\_\_ Basement

\_\_\_\_\_ Crawlspac Piles \_\_\_\_\_ Slab-on-Grade \_\_\_\_\_ Piers and Posts

**Superstructure:** \_\_\_\_\_ Stud-Framed (Standard) \_\_\_\_\_ Common Brick \_\_\_\_\_ ICF \_\_\_\_\_ Masonry

**Roof Covering:** \_\_\_\_\_ Shingles – Asphalt (Standard) \_\_\_\_\_ Wood \_\_\_\_\_ Clay tile \_\_\_\_\_ Standing Seam (Metal) \_\_\_\_\_ Slate

**Interior:** \_\_\_\_\_

**HVAC System:** \_\_\_\_\_ Heating and/or Cooling \_\_\_\_\_ Where located? \_\_\_\_\_

**Electrical** \_\_\_\_\_

**Plumbing** \_\_\_\_\_

**Depth of Flood above ground:** \_\_\_\_\_ (estimated to nearest 0.5 foot)

**Depth of Flood Above First Floor** (estimated to nearest 0.5 foot) \_\_\_\_\_

No Physical Damage (Check here if none).

**Duration of Flood:** \_\_\_\_\_ Days: \_\_\_\_\_ Or Hours \_\_\_\_\_

Inspectors Name: \_\_\_\_\_ Date of Inspection: \_\_\_\_\_  
(MM/DD/YYYY)

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

**Quality of Construction:** \_\_\_\_\_ Low \_\_\_\_\_ Budget \_\_\_\_\_ Average \_\_\_\_\_ Good \_\_\_\_\_ Excellent

**Depreciation Rating:** Check one:

1.Very Poor condition  2.Requires Extensive Repairs  3.Requires Some Repairs  
 4.Average Condition  5.Above Average Condition  6.Excellent condition  7.Other

Depreciation Explanation (Write here).

**ELEMENT PERCENTAGES**      **% DAMAGED**

**Foundation** \_\_\_\_\_

**Superstructure** \_\_\_\_\_

**Roof Covering** \_\_\_\_\_

**Plumbing** \_\_\_\_\_

**Electrical** \_\_\_\_\_

**Interiors** \_\_\_\_\_

**HVAC** \_\_\_\_\_

**NOTES:**

## Appendix H: Sample Stand Alone Damage Assessment Worksheet (long hand version)

1. **Address:** \_\_\_\_\_

2. **Owner:** \_\_\_\_\_

Telephone Number \_\_\_\_\_

3. **Occupant:** \_\_\_\_\_

Telephone Number \_\_\_\_\_

4. **Insurance Coverage (Optional):**

Company \_\_\_\_\_ Policy Number: \_\_\_\_\_  
Building: \$ \_\_\_\_\_ Contents: \$ \_\_\_\_\_

5. **Special Flood Hazard Area:**

Community I.D. #: \_\_\_\_\_

FIRM Panel: \_\_\_\_\_ FIRM Date: \_\_\_\_\_

Flood zone: \_\_\_\_\_ Base Flood Elevation \_\_\_\_\_

Existing Lowest Floor Elevation: \_\_\_\_\_ (if available)

6. **Duration of Flooding:** Days \_\_\_\_\_ Hours \_\_\_\_\_

7. **High Water Mark:**

A) Exterior Walls \_\_\_\_\_ ft.  
B) Interior Walls \_\_\_\_\_ ft.

8. **Type of Structure:**

A) Exterior:

1)	Plywood/Hardboard	_____	5) Brick	_____
2)	Stucco	_____	6) Concrete Block	_____
3)	Siding/Shingles	_____	7) Other (describe)	_____
4)	Masonry Veneer	_____		

B) Manufactured/Mobile Home:

1)	Dimensions:	a) single wide	_____	size	_____ x	_____
		b) double wide	_____	size	_____ x	_____
2)	Skirting:	yes	_____	no	_____	

**9. Description of Structure:**

A) 1 story \_\_\_\_\_ 2 story \_\_\_\_\_ Tri-level \_\_\_\_\_  
1 1/2 story \_\_\_\_\_ Bi-level \_\_\_\_\_ 3 or more \_\_\_\_\_

B) Garage: attached \_\_\_\_\_ detached \_\_\_\_\_  
Carport: attached \_\_\_\_\_ detached \_\_\_\_\_

C) Roofing:  
Metal/corrugated or ribbed \_\_\_\_\_ Composition shingles \_\_\_\_\_  
Other: Describe \_\_\_\_\_

D) Foundation:  
Slab-on-grade \_\_\_\_\_  
Crawlspace \_\_\_\_\_  
Basement \_\_\_\_\_ (Finished \_\_\_\_\_ Unfinished \_\_\_\_\_)  
Poured walls \_\_\_\_\_  
Block walls \_\_\_\_\_  
Post-piers-piles \_\_\_\_\_

E) Heating and Cooling:  
Forced air \_\_\_\_\_  
Boiler \_\_\_\_\_  
Wall furnace or baseboard \_\_\_\_\_  
Heat Pump \_\_\_\_\_  
Fireplace/wood burning stove \_\_\_\_\_  
Other \_\_\_\_\_

F) Plumbing: Number of bathrooms: \_\_\_\_\_

G) Built-In Appliances:  
List: \_\_\_\_\_

**10. Description of Damage:**

A) Plumbing:  
1) Is it exposed? \_\_\_\_\_  
2) Does it need repair? \_\_\_\_\_

B) HVAC/Electrical  
1) Water depth \_\_\_\_\_ ft.  
2) Damaged \_\_\_\_\_ (Repairable \_\_\_\_\_ Replaced \_\_\_\_\_)

**Use corresponding numbers given below to answer C-F below:**

1. Settlement/cracked	2. Partially missing
3. Sagging	4. Dislodged/destroyed
5. Submerged	6. Include all the above
7. No damage	8. Other: describe _____

C) Foundation \_\_\_\_\_

D) Exterior Walls \_\_\_\_\_

E) Interior Walls \_\_\_\_\_

F) Roof \_\_\_\_\_

**11. Overall condition of structure:**

A) Minor damage _____	B) Major Damage _____
C) Totally destroyed _____	D) Structure off foundation _____

**12. Determination of Substantial Damage**

Percent Damage =  $\frac{\text{Cost of Repair}}{\text{Market Value}}$  = \_\_\_\_\_

**In the event that the percent damage is equal to or greater than 50%, the building is substantially damaged.**

\_\_\_\_\_ This building is substantially damaged and therefore must be elevated or floodproofed so that the lowest floor is protected at or above the elevation of the base flood.

\_\_\_\_\_ This building is not substantially damaged. This building can be repaired without having to be mitigated.

\_\_\_\_\_ This is a properly elevated structure and may be reconstructed at its existing elevation.

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



# NOTICE

Because this building is located in a floodplain and was damaged by flooding, a damage assessment must be conducted by the (city or county).

Before occupying this building or doing any repair work you must call the (city or county) community's Floodplain Administrator at (\_\_\_\_) \_\_\_\_\_ to schedule an inspection.

Failure to obtain reconstruction approval may result in a penalty.

## Appendix J: Sample Press Release

### **RESIDENTS IN [\(COMMUNITY\)](#) WITH FLOOD DAMAGE REMINDED OF PERMIT REQUIREMENTS**

As property owners in [\(community\)](#) contemplate clean up and repairs following recent flooding, the [\(community permit office\)](#) is reminding residents to obtaining local permits before repairing or rebuilding flood-damaged structures.

The permits are required as part of local government participation in the National Flood Insurance Program, providing eligibility for flood insurance, flood disaster assistance, state and federal grants and loans, and buyout funds for flood-prone property.

Local floodplain management ordinances require that permits be obtained for any construction or development activity in a floodplain area, including the repair or reconstruction of structures damaged by flooding.

Special conditions apply to substantially damaged buildings - those in which the total cost of repairs is 50 percent or more of the structure's pre-flood market value. If a building is found to be substantially damaged, regulations require that repairs not begin until compliance with the local floodplain ordinance is demonstrated. In some cases, that may require repairs that include elevating or flood-proofing the structure to reduce the potential for future flood damage.

The cost to repair must be calculated for full repair to "pre-damaged" condition, even if the owner elects to do less. The total cost to repair includes structural and finish materials as well as labor. If labor and materials have been donated they must still be assigned a value. If local building codes require the structure to be repaired according to certain standards, these additional costs must be included in the full repair cost for the structure.

State and federal assistance may be available to property owners to reduce the chances of future flood damage. Mitigation assistance may cover costs of relocation, or for elevating or purchasing flood-damaged structures. Flood insurance may also provide up to \$30,000 to protect a structure from future flood damage.

Property owners and residents with flood-damaged buildings should [contact \(local building and zoning administrator\)](#) for more information on repair and reconstruction permits.