

Sonoma County / Operational Area Damage Assessment Plan

An Annex to the Emergency Operations Plan
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**SONOMA COUNTY/OPERATIONAL AREA
DAMAGE ASSESSMENT PLAN**

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HANDLING INSTRUCTIONS

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INTRODUCTION AND SCOPE

This plan, written in a checklist format, establishes general procedures and organizational structures for damage assessment following a major disaster in the Sonoma County Operational Area. This is a functional annex to the Sonoma County/Operational Area - Emergency Operations Plan (EOP).

A swift and accurate damage assessment is essential for the quick and efficient response and recovery to a disaster. In addition, the data retrieved from damage assessment will be used in future mitigation planning. Immediately following an incident, damage assessment contributes to:

- **Identifying dangerous conditions**
- **Identifying damage clusters to allow responders and decision makers to focus efforts and prioritize mitigations**
- **Swift estimation of damage required for declaration of emergencies**
- **Estimation of debris volume to begin planning for debris removal**

The assessment of damage requires a county-wide effort. This Annex establishes a single standard and process for the collection and analysis of damage assessments for the Sonoma County Operational Area.

PLAN OVERVIEW

Damage assessment begins as soon as practical following an incident. Individual municipalities are responsible for conducting damage assessment within their municipal boundaries. Each municipal boundary constitutes a Damage Assessment Zone (DAZ) for reporting purposes. The unincorporated areas of the Operational Area (OA) are broken into zones corresponding with the seven Fire Protection Zone boundaries.

Each DAZ will have a designated Damage Assessment Team Leader who will be responsible for collecting data in his or her zone and transmitting that information to the EOC.

As the EOC receives the information, the damage assessment unit leader will capture the data and conduct analysis. The collated reports will be incorporated into the common operating picture and will be used to develop response and recovery plans as well as clarifying and substantiating emergency proclamations.

ROLES AND RESPONSIBILITIES

Sonoma County Agencies

Fire & Emergency Services

- Develop and maintain the Damage Assessment plan to include periodic reviews of Damage Assessment Zones and maintenance of designated Damage Assessment Team Leaders.
- Develop Damage Assessment tools.
- Develop and disseminate Damage Assessment Just in Time training packages.
- Provide EOC Damage Assessment Staff training as required.

Permit and Resource Management Division

- Conduct Deliberate Damage Assessment of all applicable structures in the Operational Area.
- Coordinate with partner agencies for providing of mutual aid inspectors as needed.
- Develop Preliminary Damage Assessment plan and applicable tools.
- Provide appropriate training and equipment to all inspectors.
- Track progress of the damage assessment teams to ensure safety and accountability.
- Consolidate field reports and forward to the EOC Damage Assessment Unit by fax, internet, phone or courier as appropriate.

Sonoma County Regional Parks

- When activated, provide an operations center to oversee rangers participating in damage assessment duties.
- Conduct Damage Assessments of areas assigned by the EOC Damage Assessment Unit Leader by creating Damage Assessment Teams using Ranger and other personnel as needed.

Sonoma County Operational Area Emergency Operations Center

Damage Assessment Unit Leader

- Coordinate the deployment of damage assessment teams to conduct damage assessment in the unincorporated areas.
- Identify authorized personnel deploying as part of the damage assessment teams and coordinate with the Sheriff's Office to authorize entry into controlled areas.
- Receive damage reports from DAZ, utilities, partner agencies and other sources.
- Develop the Damage Assessment to include providing information to the:
 - Situation Analysis for the development of the Common Operating Picture and Cal EOC reporting
 - GIS Facilitator for input into applicable GIS products
 - Advance Planning Unit. to develop the debris management plan.
- Disseminate the consolidated damage assessments to the cities and other appropriate parties.

Situation Analysis Unit Leader

- Receive consolidated damage reports from the damage assessment unit.
- Develop the Common Operating Picture.
- Brief the damage assessment as part of the overall situation as necessary.

Advanced Planning Unit Leader

- Receive consolidated damage reports from the damage assessment unit.
- Incorporate the damage assessment into the response and recovery plans to include the debris management plan.

Municipal and Unincorporated Areas

Damage Assessment Zone Unit Leader

- Identify personnel and equipment to be used in conducting initial damage assessment.
- Provide “just in time” training to assessors in accordance with this plan.
- Provide safety briefing and equipment as necessary to the damage assessment teams.
- Track progress of the damage assessment teams to ensure safety and accountability.
- Consolidate field reports and forward to the EOC Damage Assessment Unit by fax, internet, phone or courier as appropriate.

State, Federal and Tribal Agencies

State, Federal and Tribal agencies have their own reporting systems. However, the Sonoma County OA is responsible for consolidating damage that occurs within the Sonoma County OA boundaries. These agencies have a responsibility to report damage in their respective areas. The Damage Assessment Unit Leader may have to reach out

to these agencies to insure they are responsible for reporting damages. The agencies include, but are not limited to:

Federal	State	Tribal
Army Corps of Engineers/Warm Springs Dam	CalTrans	Kashia Band of Pomo Indians
USCG TRACEN Petaluma	CHP	Graton Rancheria
USCG Station Bodega	State Parks	Dry Creek Rancheria
USN Skaggs Island	Sonoma State University	Lytton Band of Indians

CONCEPT OF OPERATION

The damage assessment unit goal is to rapidly assess the damage caused by an incident, with the goal of having an initial assessment within 48 hours followed by a more detailed assessment as the situation develops. Operations will be in three phases.

Phase 1: Rapid Damage Assessment (RDA). Immediately following an incident, first responder resources may be unavailable for damage assessment and other resources for damage assessment may take time to mobilize. The RDA will be based on both predictive models such as HAZUS and unstructured reporting by government and non-government sources, such as citizen reporting, news reports and social media. The RDA provides a basis for activating additional resources for more detailed assessments as well as providing data for the initial request for emergency proclamations. The EOC is responsible for coordinating the RDA in unincorporated areas, with cities collecting information from within their jurisdictions and forwarding to the EOC. During phase 1, the planning for a systematic windshield survey and the allocation of resources for the survey is completed and partner agencies are contacted and requested to provide damage assessments from within their jurisdictions. During Phase 1 the priority is to assess any damage to Critical Life Safety Targets that present imminent threat to both life and environment. Phase 1 ends with the initiation of the Initial Damage Assessment (IDA).

Phase 2: Initial Damage Assessment (IDA). As the situation evolves, a more detailed assessment of the situation needs to be accomplished. In Phase 2, Damage Assessment Teams may be dispatched to conduct an evaluation of the county's infrastructure. This is a hasty evaluation of the structures exterior condition. It is understood that the initial damage assessment will not present a full and accurate understanding of the extent of damages. The IDA uses Process #1 of this plan. The end state is to identify all significantly damaged structures in the Operational Area to form the basis for further damage and safety inspections and for recovery planning operations. Phase 2 ends with the completion of the survey. Phase 3 may begin prior to the culmination of Phase 2 operations.

Phase 3: Preliminary Damage Assessment. As the incident matures, the Initial Damage Assessment will be supplanted by a Preliminary Damage Assessment (PDA). The PDA has no set period for completion and depending on the severity of damage and the available resources for inspection, it may take weeks, months or even years to complete. The PDA uses Process #2 and #3 of this plan.

After the PDA is conducted, the State and/or FEMA may conduct a verification of the damage assessment. If the incident is of severity and magnitude that local and State resources are unable to complete the PDA, Cal OES may request a Joint PDA to validate damage. During Phase 3, the Damage Assessment Unit may begin planning for debris management using Process #4.

During all phases, RDA, IDA and PDA will funnel the field reports to the EOC damage Assessment Unit for compilation, assessment and dissemination.

In order to complete the damage assessment process, we have divided the program into four processes. They are: Initial Damage Assessment, Preliminary Damage Assessment, Collection and Analysis, and Debris Management.

Process 1: Initial Damage Assessment

The Initial Damage Assessment (IDA) is intended to be a rapid assessment to be completed within 24 hours. There are two major components to the IDA: Public and Individual.

Individual IDA

Individual IDA focuses on damage done to residences and businesses, but may provide other infrastructure damage information in the process. The Individual IDA process requires city and county governments to do rapid visual inspection (“Windshield Survey”) of all residences and structures in their areas of responsibility to assess damage.

For control, the entire county is divided into Damage Assessment Zones (DAZ) with a designated Damage Assessment Zone Unit Leader. Each municipal boundary constitutes a DAZ. The unincorporated areas of the OA are broken into zones corresponding with the seven Fire Protection Zone boundaries. Each DAZ has a unique identifier for tracking. The DAZ map and assigned responsible unit leaders are in Annex A of this plan.

Upon activation to the DAZ, Unit Leaders will assemble a team of damage assessors for their zone. The composition of this team is at the discretion of the DAZ unit leader. As a minimum, any team should include two (2) personnel and materials included in the IDE Field Packet (Annex D to this plan). The DAZ Unit Leader is responsible for providing the Just-In-Time training to all personnel (Annex C to this plan), conducting a safety briefing, assigning sectors, establishing and maintaining communication and accountability, coordinating with Law Branch to gain access to

controlled areas, collecting and transmitting reports to the EOC Damage Assessment Unit.

Once deployed, the Damage Assessment Team (DAT) will remain in their sector and conduct a visual check of all structures. The team will only report damage to buildings and roads in accordance with the Initial Damage Estimate Criteria (Annex B to this plan). Utility damage and other hazards may be reported, but are not required.

Damage will be reported using the Initial Damage Assessment form, also known as the “Windshield Assessment” form shown in figure 1. Instructions for the use of this form are included in Appendix D to this plan.

Sonoma County/Operational Area Initial Damage Assessment (IDA) Windshield Survey

Agency _____ Name of Submitter _____
 Date _____ Phone/E-mail: _____
 Time Received _____

* R = Residential, B = Business, G=Government, M= Mobile Home, N=Non-profit, O= Outbuilding

a.	b.	c. Structure Type (R, B, G, M, N or O)				d.					e.					f.		g.
		Destroyed (75% to 100%)	Major (40% to 75%)	Minor (15% to 40%)	Unaffected (0% to 15%)	Fire Damage	Gas Leak	Water/Sewer Leak	Electrical	Chemical	Other	Access	No Access	Notes				
Time	Location/Address	Structural Damage				Other Hazards					Roads							
1																		
2																		
3																		
4																		
5																		
6																		

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Figure 1: Initial Damage Assessment Windshield Survey

The above example is a report of damage on Hill Drive in Sebastopol (CSEB). It shows one house destroyed by fire, a second with major damage and a water/sewer leak, a third house with minor damage and a water main break that blocks the road. A church has also been damaged and a storage shed at the church destroyed.

The DAT may also use a digital app for reporting the damage. If a digital app is adopted for the emergency, the Damage Assessment Unit will disseminate instructions for downloading and the use of the app.

Ideally, this information will be reported electronically either through an app or by filling in the spreadsheet. However, if this is impractical, the form may be faxed or delivered through other means to the EOC.

Public IDA

The goal of Public IDA is to assess damage to public structures to include government buildings, roads and bridges, utilities and other public use facilities. All agencies have an obligation to inspect their respective facilities, assess damage and report it to the EOC Damage Assessment Unit using the Public Assistance IDA Form shown in figure 2.

Sonoma County/Operational Area Public Agency Damage Report

Agency _____ Name of Submitter _____

Date _____ Phone Number/Email: _____

Time Received _____

* a: Debris Removal, b: Protective Measures, c: Roads & Bridges, d: Water Control Facilities, e: Public Buildings
 f: Public Utilities, g: Facilities Under Construction, h: Private Non-Profit, i: Public Recreation

		3.	4.	5.	6.	7.	8.			
		Damage Category*	Destroyed (75% to 100%)	Major (40% to 75%)	Minor (15% to 40%)	Affected (0% to 15%)	Does Damage Present Large-Scale Threat to Life/Property? (Y/N)	Assistance Needed? (Y/N)	Estimated Cost of Repair	
1.	2.	Damage					Notes			
Location/Address	Description									
a.										
b.										
c.										
d.										
e.										
f.										

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Figure 2: Initial Damage Assessment Public Agency

Critical Life Safety Targets

In addition to receiving private and public damage assessments, the Damage Assessment Unit will maintain a list of Critical Life Safety Targets. The Critical Life Safety Targets are those elements of the infrastructure that, if inoperable, will result in significant additional threat to life and environment. Examples include the Warm Springs Dam, Hospitals, power transmission stations, telecommunications, water supplies, wastewater systems and other such facilities. Because of the criticality of these facilities, the Damage Assessment Unit will proactively assess their status within four hours of any incident and identify if any additional resources are required.

Damage Assessment Teams

The composition of the DAT is the responsibility of the DAZ Unit Leader. Because of the diverse nature of the County, there is no standardized solution. Given that in a disaster emergency responders such as fire and police services may be committed, the DAZ may need to recruit personnel from their jurisdiction not normally associated with emergency response. These personnel may include local government employees or volunteers. Ideally, the personnel tasked with conducting a damage assessment will be identified prior to the incident and not have other essential emergency tasks.

In the event of a major disaster, the Sonoma County Regional Parks (SCRP) may be tasked with forming multiple DATs. These DATs will be tasked by the Damage Assessment Unit through the Regional Parks Operations Center. SCRPs DATs will be assigned according to need.

In the event that the DAZ Unit Leader is unable to form a DAT from local resources, they are to contact the EOC Damage Assessment Unit and request a DAT. This resource may come from the SCRPs DAT pool or outside the County as the situation warrants.

IDA Safety

The safety of the Damage Assessment Team is paramount. The DAZ Unit Leader will make it clear that under no circumstances does the collection of this information warrant a safety risk. The following safety precautions will be taken:

1. Damage Assessments are to be done only in daylight.
2. Damage Assessment Teams must have some form of functioning communication back to the DAZ Unit Leader.
3. Damage Assessment Teams are NOT to conduct rescue operations unless they are equipped and trained to do so.
4. Damage Assessment Teams are not to go off road. If a road is blocked or closed, the Damage Assessment Team will provide this information to the DAZ Unit Leader and assessment will be conducted at a later date.
5. DATs are NOT to enter any structure to conduct more detailed assessments.
6. DATs are NOT to investigate any non-structural damage to determine scope.
EXAMPLE: If there are downed power lines, the DAT is not to approach them. It should be reported and turned over to the appropriate agency for disposition.
7. Damage Assessment Team will be briefed on potential hazards and be trained how to avoid them.

Remember: THE DAMAGE ASSESSMENT IS NOT WORTH A LIFE

As DAZ Assessments are completed, the DAZ Unit Leader will transmit the information to the EOC. This may be accomplished in order of preference by:

1. Using the SoCo Report It! App.
2. Electronic transmission of document via internet.
3. Fax.
4. Verbally by phone.
5. Verbally by radio.
6. Messenger.

EOC Points of Contact

The following are EOC Contact Numbers for the transmittal of reports, request for additional resources or other questions:

EOC Damage Assessment:

Email:

EOC Emergency Coordinator:

EOC Plans Section Chief:

EOC Message Center:

EOC Fax:

EOC Emergency Radio Frequency:

EOC ACS amateur band communications

Process 2: Preliminary Damage Assessment

Preliminary Damage Assessment (PDA) is the process of completing more detailed inspection of private residences, businesses and public facilities. The individual municipalities are responsible for their own PDAs. The unincorporated areas of Sonoma County is the responsibility of the Permit and Resource Management Division (PRMD). PRMD is the responsible agency for coordinating mutual aid for additional building inspectors. Requests for mutual aid inspector resources will go from the cities to the Damage Assessment Unit Leader for assignment and tracking.

Process 3: Damage Estimate Compilation and Analysis

Damage Assessment is broken into two general periods. The Initial Damage Assessment is used to develop a general picture of the situation at the beginning of the incident. As the incident matures, a more detailed assessment of the damage is required. In both cases, the information will flow from the field collectors to the Damage Assessment Unit in the EOC. The Damage Assessment Unit is responsible to collect the information, compile it in an easy to understand report, post the location of damage

Mobile homes do not use the median cost of homes. Mobile homes are assumed to have an average replacement cost of \$35,000.

Businesses, government buildings, non-profit buildings and out buildings do not have standardized values. Each one must be evaluated and the damage costs evaluated. Ideally, the owning entity should be able to provide a value for losses.

Public Assistance Damages are categories of damage assessment that cover damage to public works such as roads, bridges and utilities. The reporting of damage to these facilities may be reported as part of the IDA, but IDA reports should not be used for estimating damage. Only reports from the responsible agency should be used. The Public Assistance Damage codes are:

Category	Description
A	Debris Removal and Disposal
B	Emergency Protective Measures
C	Road and Bridge Systems (Non-federal)
D	Water Control Facilities (Levees, dams and channels)
E	Public buildings and equipment
F	Public Utilities
G	Parks/Recreation/Other

The IDE is updated as information becomes available. The Damage Assessment team is responsible for updating information using the following systems:

1. The GIS system. Information will be compiled into a spreadsheet with addresses and levels of damage to be uploaded into the master map.
2. The California WebEOC or transmit to Regional/State EOC if WebEOC is unavailable. For transmission to CalOES, use the Cal OES IDE Output provided as part of the IDE Document.

Part I: Private property

Type	Destroyed	Major	Minor	Affected	Dollar Loss	Insurance %
Homes	0	0	0	0	0	0
Business	0	0	0	0	0	0
Non-Profit	0	0	0	0	0	0
Outbuildings	0	0	0	0	0	0
Total	0	0	0	0	0	0

Part II: Public Property

Category	Description	Est. \$ Loss	Insurance %
A	Debris Removal	0	
B	Emergency Protective Measures	0	
C	Roads & Bridges	0	
D	Water Control Facilities	0	
E	Public Buildings & Equipment	0	
F	Public Utilities	0	
G	Parks & Recreation	0	
Total:		0	

Part III: Other

Description	Est. \$ Loss
Unemployed	
Agricultural Crop	
Agricultural Physical	

Figure 4: Initial Damage Estimate Cal OES Report

3. Damage Assessment map using the four-color damage tracker or Critical Damage Marker.

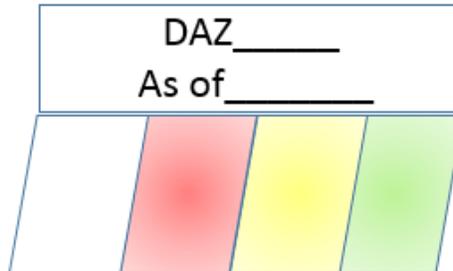


Figure 5: Damage Assessment Zone Marker

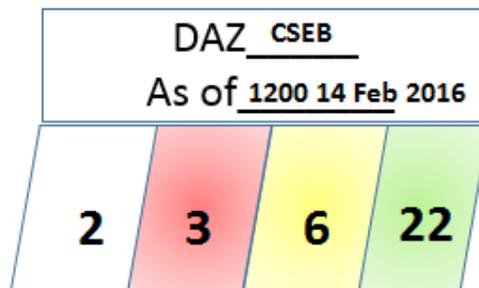


Figure 6: Filled in Damage Assessment Zone Marker showing 2 destroyed, 3 major, 6 minor and 22 affected structures in Sebastopol



Figure 7: Critical Damage Marker

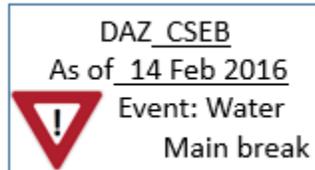


Figure 8: Filled in Critical Damage Marker showing a water main break in Sebastopol

4. The consolidated IDE will be briefed at shift change and at operational briefs as required.

Preliminary Damage Estimate

The Initial Damage Assessment and Estimate are by necessity superficial. The need to understand the scope of the damage in the short term outweighs the need for detailed reports on individual properties. As the emergency matures and the EOC transitions into the recovery phase the EOC will need more detailed information on damage.

The Permit and Resource Management Department (PRMD) has responsibility for conducting deliberate damage assessments on individual structures. This information will be recorded using the Rapid Emergency Safety Assessment (RESA) system and the results of that information will be sent to the Damage Assessment Unit Leader for dissemination.

The compiled IDE will be used by PRMD to plan the Preliminary Damage Assessments.

Process 4: Debris Management

Debris management planning is a joint responsibility between the Damage Assessment Unit and the Advanced Planning Unit. Advanced planning will create a plan designating debris collection locations and communicate requirements with the contractor and Transportation and Public Works. Damage Assessment has the responsibility to estimate the total quantity by Damage Assessment Zone. Estimating

debris quantities by DAZ allows Advanced Planning to determine the best location for a debris consolidation site.

The EOC will use FEMA Pamphlet 329 – Debris Estimating Field Guide – for developing the debris estimation. A rough order of magnitude for debris will use the following:

Single Family Residences

$$\text{Square Feet} \times 0.20 = \text{CY}$$

General Building Formula

$$\frac{\text{Length} \times \text{Width} \times \text{Height} \times 0.33}{27} = \text{CY}$$

Mobile Homes

Single Wide: 290 CY

Double Wide: 415 CY

Personal Property (Floods)

Following flooding, water damaged personal property being removed and placed on public right-of-ways will result in significant debris. The amount of debris is estimated based on number of houses that are flooded to the MINOR level or high and is 25-30 CY per house.

Appendix A: Damage Assessment Zones and Responsibilities

Incorporated Areas

Damage Assessment in an incorporated area is the responsibility of the municipality. They are responsible for reporting all damage within their municipal boundaries. The incorporated areas of Sonoma County are Cloverdale, Cotati, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma and Windsor. For the purpose of damage assessment, Sonoma State University and Sonoma County Junior College District are considered to be their own municipalities. For tracking purposes, the cities will be abbreviated with a four-letter code using the letter “C” followed by the first three letters of the city.

#	City
CCLO	Cloverdale
CCOT	Cotati
CHEA	Healdsburg
CPET	Petaluma
CROH	Rohnert Park
CSAN	Santa Rosa
CSEB	Sebastopol
CSON	Sonoma
CWIN	Windsor
CSSU	Sonoma State University
SRJC	Santa Rosa JC

Figure 9: Municipal codes for damage assessment

The municipalities will transmit an Initial Damage Assessment worksheet and update as appropriate. The EOC will not require the windshield assessment forms.

Unincorporated Areas

The primary responsibility for damage assessment outside of an incorporated area is organized by using the Fire Protection Zone boundaries with the following exceptions:

1. State highways will be reported by Cal Trans or the CHP.
2. State Parks will be reported by State Parks.
3. County parks will be reported by Sonoma County Regional Parks
4. Federal facilities including Warm Springs Dam and the US Coast Guard Training Base Petaluma will be reported by those agencies directly to the EOC.
5. Tribal lands will be reported by tribal authorities to the EOC.

In cases where a Fire Protection Zone overlaps an incorporated city, the County DATs will only conduct IDA/PDA in the unincorporated part of their jurisdiction. This applies specifically to Cloverdale, Cotati and Windsor.

A map of the fire district zones is in Tab 1 to Appendix A of this plan.

The following are the fire protection zones and codes:

#	Fire Protection Zones:
FPZ3	Sonoma/Valley of the Moon/Schell-Vista
FPZ4	Sea Ranch/Annapolis/Fort Ross
FPZ5	Jenner/Monte Rio/Guerneville/Cazadero/Forestville
FPZ6	Cloverdale/Geyserville/Knights Valley/Geysers
FPZ7	Unincorporated Santa Rosa/Rincon Valley/Bennett Valley
FPZ8	Graton/Sebastopol/Gold Ridge/Bodega/Valley Ford/Bloomfield
FPZ9	Rancho Adobe/Wilmar/San Antonio/Lakeville

TAB 1

Fire Protection Zone Boundaries



Figure 10: Fire District Boundaries

Appendix B

Initial Damage Assessment Criteria

The initial damage assessment is designed to be a rapid assessment accomplished without entering the structure and is based solely on the observation of external damage. This is in contrast to the follow-on deliberate damage assessment conducted by the Permit and Resource Management Department (PRMD) using trained inspectors.

Because of the rapid nature of this assessment, the damage criteria are very general to allow an observer to make an immediate assessment. Damage assessment will be broken into four categories with the following criteria:

Affected

Affected properties are those that have received damage that appears to be primarily cosmetic, such as broken windows, minor cracks etc. Because damage may be greater than it initially appears, structures that meet the requirement of Affected are considered to be up to 15% damaged and is considered to be habitable.

Examples of affected damage include:

- Some shingle damage.
- Few broken windows.
- Cosmetic damage to siding.
- Repairable.
- In flood situations the house is above the water line.

Minor

Minor damage properties are those that have received more significant damage. Structures that meet the requirement of Minor are considered to be up to 40% damaged, but is still considered to be habitable.

Examples of Minor damage include:

- Holes in roof or walls.
- Windows/Doors missing or not securable
- In flood situations, water line above the door sill but below the door knob.

Major

Major damage properties are those that have significant structural damage requiring **longer than 30 days** for repair. Structures with major damage are

Temporarily Uninhabitable. Structures that meet the requirement of Major are considered to be up to 75% damaged.

Examples of Major damage include:

- Structural failure of walls, roof and foundation which **are** repairable.
- Damage to windows, doors and exterior walls.
- Extensive debris and utility problems.
- In flood situations, waterline is above the doorknob but below the bottom floor ceiling.

Destroyed

Structure is a total loss and damage is to such an extent that repair is not feasible and has left the home **permanently uninhabitable**.

Examples of Destroyed include:

- Complete failure of two or more structural components, such as collapse of foundation, walls or roof.
- Only foundation remains.
- In flood situations, waterline over 1st story

Damage Representations

The following are schematic representation of the four categories of damage. These representations are intentionally abstract.



Figure 11. Representation of house with **Affected** damage



Figure 12. Representation of house with **Minor** damage

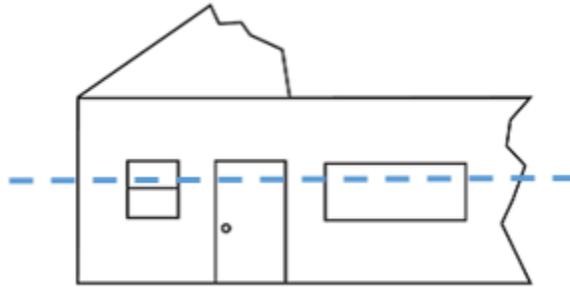


Figure 13. Representation of house with **Major** damage

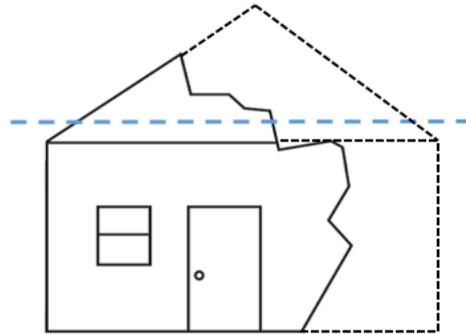


Figure 14. Representation of house that is classified as **Destroyed**

Appendix C

Just In Time Training

The need to complete an Initial Damage Assessment in the first 48 hours of a disaster is important to developing a common operating picture of the Sonoma County Operational Area. These assessments will be used to allocate response resources and planning for recovery operations. Because first responders such as law enforcement and fire services may be completely committed in the opening 24 hours, the IDA will likely be conducted by personnel untrained in this task. The Just-In-Time Training packet is designed to give personnel chosen to do the IDA a basic understanding of their responsibilities in conducting the IDA.

The Damage Assessment Unit or a Damage Assessment Zone Leader will provide the following briefing to all DATs being deployed.

Damage Assessment Team Briefing

Good Morning/Afternoon: You have been selected to serve on a Damage Assessment Team to conduct an Initial Damage Assessment of the area affected by the disaster. It is important that you conduct a visual inspection of all of the structures in the area that has been assigned to you and report the results to me or to the Sonoma County EOC Damage Assessment Unit. The results of your work will help plan recovery operations.

As you conduct this assessment I want to stress that this is a “Windshield” survey. You will be basing your assessment on any damage that you can see from the exterior of the structure. This is only an initial assessment. A more detailed assessment by building inspectors will be done in the future.

The area you will be doing the damage assessment in is: (Describe area and provide map if possible) This is in Damage Assessment Zone _____

If you look on the back of the sheets I handed you, you will find a guide for the four levels of damage that you will report. Those levels are: “Affected” which indicates minimal damage such as broken windows or paint; “Minor” damage may include holes in the roof or walls but the building still looks sound and habitable; “Major” damage shows significant damage and looks uninhabitable; A

“Destroyed” building is one where two or more walls are missing or the roof is substantially collapsed.

You will be making judgement calls on the levels of damage. Do the best that you can. We understand that you may not have training in this area and you may not be able to tell the real extent of the damage from the outside of the building. That is okay. This is only to get an initial assessment of the scope of damage.

When you have identified damage, record it on your form as follows:

Column A, record the time you observed the damage.

Column B, record the address. If you are uncertain of the address provide as much detail as you can as to the location by using GPS coordinates, distance from nearby cross streets or physical descriptions.

Column C, identify the building as being a residence, a mobile home, a business, a government property or a non-profit building such as a church or clinic. If you see a minor structure such as a shed or barn, you may identify those as an out building.

Column D, place a check mark in the appropriate column for the amount of damage you estimate for the property.

Column E, you may check a column if there is obvious signs of damage or hazards in one of these categories.

Column F, check the appropriate column for any damage to roads caused by the incident. If the road is damaged but still is trafficable check “Access”. If the road is not open to traffic check “No access”. Do not report road closures by other agencies. Only report physical damage.

Column G, you may write any notes to help clarify the situation.

Once you have completed your assigned area return the completed forms to me or fax them to the number on the bottom of the sheet.

SAFETY

Your safety paramount. Under no circumstances does the collection of this information warrant a safety risk. The following safety precautions will be taken:

- 1. Damage Assessments are to be done only in daylight.**
- 2. Damage Assessment teams MUST have some form of communication.**
- 3. Damage Assessment Teams are NOT to conduct rescue operations unless they are equipped and trained to do so. If you see an emergency, report it to 911 or your unit leader.**
- 4. You are NOT to go off road. If a road is blocked or closed, report this information to the DAZ Unit Leader and assessment will be conducted at a later date.**
- 5. You are NOT to enter any structure to conduct more detailed assessments.**
- 6. You are NOT to investigate any non-structural damage to determine scope. EXAMPLE: If there are downed power lines, you are not to approach them. Report and turned over to the appropriate agency for disposition.**
- 7. Damage Assessment Team will be briefed on potential hazards and be trained how to avoid them.**

Specific hazards you may encounter are: <Identify any hazards that may be encountered due to the disaster>

Do you have any questions?

Appendix D

Initial Damage Assessment Field Packet

Each Damage Assessment Team will be given the following documents before beginning their mission:

1. Copies of the Initial Damage Assessment (IDA) Windshield Survey form. Multiple copies may be necessary.
2. Map of the DAT's area of responsibility.
3. Copy of the Field Initial Damage Assessment Guide.
4. Damage Assessment Team Identification Placard.
5. Safety Message.

Components of the packet are as follows:

Sonoma County/Operational Area Initial Damage Assessment (IDA) Windshield Survey
 Agency: _____ Damage Ass. Zone: _____
 Date: _____ Person Reporting: _____
 Time Received: _____ Person Receiving: _____
* R = Residential, B = Business, G=Government, M= Mobile Home

a.	b.	c.		d.					e.					f.		B.	
		Structure Type (R, B, G or M)*	Structural	Destroyed (75% to 100%)	Major (40% to 75%)	Minor (15% to 40%)	Affected (0% to 15%)	Fire Damage	Gas Leak	Water/Sewer Leak	Electrical	Chemical	Other	Roads	Access		No Access
1																	
2																	
3																	
4																	
5																	
6																	
Total -- This Page				0	0	0	0	0	0	0	0	0	0	0	0	0	0

Submit via fax: 707-526-5555 or via email: eeoplana@sonoma-county.org For questions call: (707) 565-1487

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Figure 15. Initial Damage Assessment (IDA) Windshield Survey (Front)

INSTRUCTIONS

Use the following guidance for filling out the Initial Damage Assessment (IDA) form, also called the Windshield Assessment:

Top of form: Fill out the agency you are with if applicable, the date that you conducted the assessment, the damage assessment zone you are assigned to if known and your name and phone number.

When you identify damage record as follows:

Column A, record the time you observed the damage.

Column B, record the address. If you are uncertain of the address provide as much detail as you can as to the location by using GPS coordinates, distance from nearby cross streets or physical descriptions.

Column C, identify the building as being a residence, a mobile home, a business, a government property, a non-profit building (such as a church or clinic) or an out building (such as a shed or barn) by putting a single letter in the column (R, M, B, G, N or O)

Column D, place a check mark in the appropriate column for the amount of damage you estimate for the property.

Column E, you may check a column if there is obvious signs of damage or hazards in one of these categories. Please provide more information under “Notes” if you can.

Column F, check the appropriate column for any damage to roads caused by the incident. If the road is damaged but still is trafficable check “Access”. If the road is not open to traffic check “No access”. Do not report road closures by other agencies. Only report physical damage.

Column G, you may write any notes to help clarify the situation.

Once you have completed your assigned area return the completed forms to me or fax them to the number on the bottom of the sheet.

Figure 16. Initial Damage Assessment (IDA) Windshield Survey (Back)

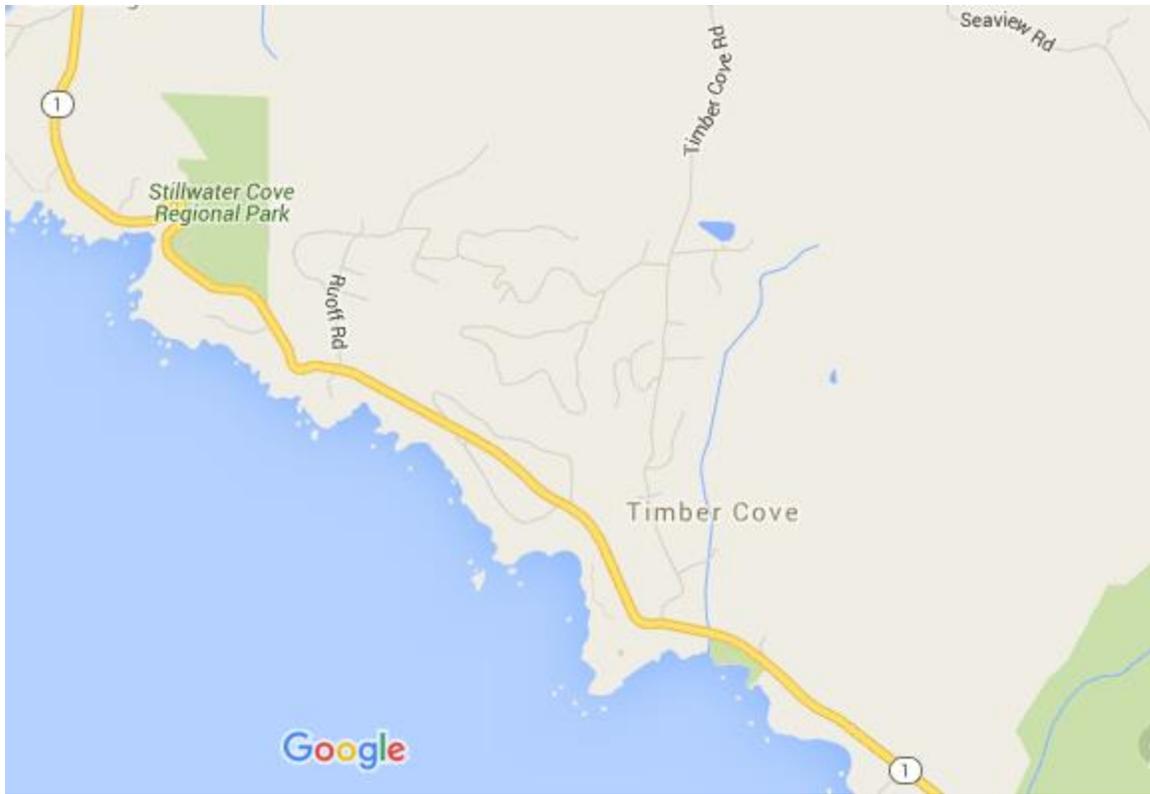


Figure 17: Example of map for a DAT showing their area of responsibility.

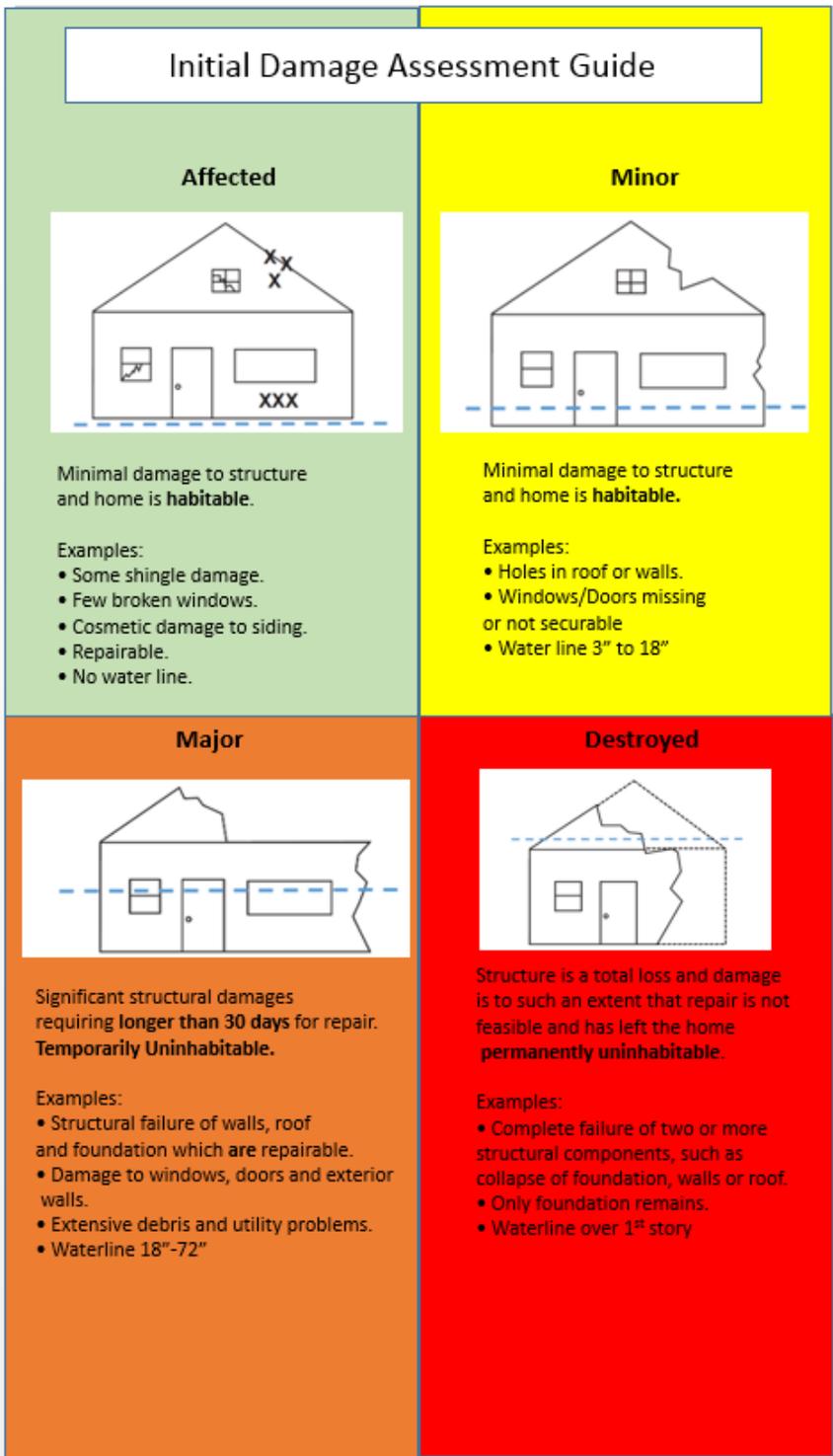


Figure 18: Initial Damage Assessment Field Guide



Damage Assessment Team

This vehicle has been dispatched by the Sonoma Operational Area Emergency Operations Center to conduct damage assessment. It is authorized to enter affected areas to complete its mission.

For questions contact the EOC Damage Assessment Unit at:

Figure 19: Damage Assessment Team Placard

SAFETY

Your safety paramount. Under no circumstances does the collection of this information warrant a safety risk. The following safety precautions will be taken:

- 1. Damage Assessments are to be done only in daylight.**
- 2. Damage Assessment teams MUST have some form of communication.**
- 3. Damage Assessment Teams are NOT to conduct rescue operations unless they are equipped and trained to do so. If you see an emergency, report it to 911 or your unit leader.**
- 4. You are NOT to go off road. If a road is blocked or closed, report this information to the DAZ Unit Leader and assessment will be conducted at a later date.**
- 5. You are NOT to enter any structure to conduct more detailed assessments.**
- 6. You are NOT to investigate any non-structural damage to determine scope. EXAMPLE: If there are downed power lines, you are not to approach them. Report and turned over to the appropriate agency for disposition.**
- 7. Specific hazards you may encounter are:**

Figure 20: Damage Assessment Team Safety Message

Appendix E

Glossary

Affected Damage: Superficial damage as a result of an incident that does not adversely affect the ability of a structure to be used for its intended purpose.

COP: Common Operating Picture. A single identical display of relevant information such as the disposition of resources and the status of important infrastructure shared by all organizations. A **COP** facilitates collaborative planning and assists all echelons to achieve situational awareness.

Critical

Damage Assessment Unit Leader: Collects and consolidates damage assessment information and prepares damage assessment reports; coordinates initial damage assessment efforts for all affected structures and facilities in the County/Area; collects and reports information to the Planning Section Chief.

DAP: Damage Assessment Plan. The plan to conduct the IDA and PDA following an incident involving structural damage.

DAT: Damage Assessment Team. A team of not less than two people deployed to an affected area to conduct damage assessment.

DAZ: Damage Assessment Zone. A partition of the County for the control of Damage Assessment Teams. All municipalities are individual DAZs. The unincorporated portions of the County are broken up into zones analogous to the Fire Protection Zones.

Destroyed: Damage as a result of an incident that makes the structure uninhabitable and unrepairable.

FPZ: Fire Protection Zone. An administrative division of the County for fire-fighting response.

IDA: Initial Damage Assessment. The process of collecting information within the operational area of the extent and magnitude of damage as the result of an incident. The IDA is a process that focuses on the speed of acquiring information versus the accuracy. The IDA is used to plan for developing the PDA.

Initial Damage Assessment Guide: A guide for the rapid assessment of damage designed to be used by untrained assessors to conduct a windshield survey.

Just In Time Training: Training in which the required knowledge and skills are imparted for immediate application.

Life Safety Targets: Identified critical infrastructure that, if damaged, will result in significant loss of life.

Major Damage: Damage as a result of an incident that makes the structure uninhabitable and requires significant repairs to be made habitable.

Minor Damage: Damage as a result of an incident that is significant, but leaves the structure habitable.

PDA: Preliminary Damage Assessment. The systematic process to identify the impact, type and extent of disaster damages and to determine the impact on individuals and communities while identifying the resources needed for the community to recover.

Windshield Assessment: An informal name for the Initial Damage Assessment. Called the Windshield Assessment, because it is meant to be conducted rapidly by a team driving through an area and reporting only immediately visible damage.