

ASLA Chapter Disaster Preparedness Handbook



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2007**

TABLE OF CONTENTS

Introduction.....	3
Primary System: Disaster Preparedness.....	6
System 1: Identify Disaster Response Coordinator/Assemble Volunteer Team.....	7
System 2: Establish Disaster Response Team Partnerships.....	8
System 3: Volunteer/Chapter Preparedness.....	8
System 4: ASLA National Disaster Preparedness Resources.....	9
System 5: Disaster Response Volunteer Call-Out.....	10
System 6: Third Tier Emergencies.....	11
System 7: Ensuring Disaster Assistance Readiness.....	12
Disaster Preparedness Assessment Checklist.....	13

Introduction

As Hurricanes Katrina and Rita taught us, we need to prepare our communities for weather shocks. There are times when we have to assist nature in cleaning up after natural disasters, because only trees, soils and the oceans can retire carbon from the atmosphere. The landscape architectural profession is uniquely qualified for this task and thus needs to be prepared to contribute to public health and safety in the days and months following disasters.

Across the country hurricanes, tornadoes, wildfire, floods, earthquakes, ocean and storm surge, tsunamis, and volcanic eruptions are natural hazards that can and do result in disaster. The worldwide threat of terrorism has been added to the list. In the aftermath of disasters, search and rescue, safety evaluation, damage assessment and recovery, are all skills that are needed to return a community to a semblance of normalcy. It is in the area of the natural systems so vital to clean water and clean air, absence of diseased waterways, elimination of poisoned soil conditions, identification of safe land fill areas to eliminate debris so that other rebuilding can occur – these are just a few of the areas in the public realm where the talents and skills of the landscape architect can be put to use. Beyond these immediate tasks the longer-term issue in many cases of planning communities in a manner that eliminates or mitigates the effects of the next disaster is a task where the landscape architect has a prime role. This role extends equally to areas of city planning and urban design as well as into infrastructure design particularly as it relates to stormwater management and drainage.

Disaster preparedness, in many ways, should be a part of everyday life for every citizen. In many communities in the aftermath of Katrina and Rita events within a 93,000 square mile area, citizens and community groups took this to heart and have since prepared for the next occurrence. What is desperately needed along the Gulf Coast is a bioregional approach to planning and determining where growth can and should happen. Katrina offers an opportunity for such an approach so we might think broadly about how “disaster response” is defined. The preparation of this handbook seeks to define a systematic approach for disaster preparedness to become a part of the institutional life of the ASLA at every level. Awareness of the hazards and stresses to which the natural and built environment is subjected affects design decisions landscape architects make on every project. As advocates for clients and for the public, landscape architects are involved in local, state, and federal activities that affect the public’s health and safety through the design of natural and built systems.

The truth is disaster will strike. Landscape architects see where the human-made environment touches the natural environment. For some disasters there is advance notice, for example satellite coverage tracks the paths of hurricanes days in advance. With the increased knowledge of the weather forecasting professionals, better predictions are being made on where to expect landfall. Similarly, for most tsunamis there is at least a few hours advance notice and monitoring buoys have been deployed in the Pacific basin that can now track the pending tsunami and new technology (since 1994) can now calculate the intensity. Of course, there are disasters for which there is no warning, making preparedness all the more critical.

Nothing Prevents Disaster

When disaster does strike, the greatest impact is human. People often panic and are stressed beyond their ability to respond rationally. They might have known their house was in danger of slipping off its foundation, but when it really happens, they have no idea what to do next. They may have been living in a flood plain, but when water overflows the banks, it is difficult to believe. They might have been aware that narrow streets into densely wooded neighborhoods would be difficult to evacuate, but when wild fire burns a house every four seconds, the reality is still beyond comprehension. In the immediate aftermath of a disaster, people require help from a calm, objective, compassionate, and coordinated response team. Landscape architects belong on that team.

Landscape architects can help ensure that basic safety precautions are observed and when it may be safe to return to a particularly devastated part of the community. They can help identify rubble that can be moved without causing additional dangerous conditions and safe places to dispose of this rubble. Landscape architects can evaluate downed trees, flooded streets and areas between buildings to determine if these areas are safe to traverse. They can evaluate erosion conditions and other soil related damage caused by severe flooding. They can document the extent of damage, photograph and map the extent of flooding, the kind of vegetation that was particularly vulnerable to heavy winds, the kinds of ground cover and vegetation

that held soil in place and protected inland areas from more extensive damage. Over the course of the next several months following a disaster, they can assess which vegetation, trees, ground covers and so forth, recuperate and restore themselves to their former condition and which are permanently damaged. Likewise which plants are most susceptible to fire damage and recover after being fire damaged?

Concern for Disaster Preparedness is Short-Lived

Disaster response has a brief, intense life in the minds of the public and the government. As an example, the television networks typically drop a story quickly, as soon as the next major news story comes along. Only in the area immediately affected where people are living with the aftermath on a day-to-day basis, does the consciousness of the disaster remain on people's minds and continue to impact their life. Immediately following a major disaster, two phenomena routinely occur:

- (1) The general public has a heightened awareness of the hazards of living in a particular region of the country, and a simultaneous heightened awareness to address preparedness issues
- (2) The government at all levels has the same heightened awareness. Following this brief period of intense interest, life returns to normal and preparedness takes a back seat to living.

Therefore, another truth about disaster preparedness is that when the immediate emergency has passed, there is a short, vital window of opportunity to better prepare the public for the next disaster, and to assist the government in making rational decisions about permanent changes to mitigate future damage. Disaster preparedness for landscape architects as a community includes readiness to seize this brief, critical opportunity. This is a time when, if we are prepared, we can have an impact on public policy to better guide the community in the future.

With regard to the general public we recognize that it is while people are aware as the best time to remind them about steps they can take which they may have long known about, but forgotten. Seminars, tip sheets, newspaper columns, interviews, and recommendations to individual landscape architects regarding their interactions with their clients and the public can be compiled and waiting for the post-disaster response when the public is receptive to act.

On the government side, landscape architects always stand ready to participate in proposing changes in land use policy, planning laws, ordinances and regulations. After a disaster, these proposals often take a more restrictive turn, often suggesting greater setbacks from waterways, coastal areas, increased buffers from certain vegetation and what kinds of vegetation can and cannot be used in a particular instance. Some changes are appropriate and will likely achieve the desired result of mitigating future loss when another disaster occurs. Some changes are not well informed. Landscape architects, having the breadth of training and expertise to recognize the systemic impact of planning and zoning decisions, as well as having the experience of assisting in disaster assessment and recovery, are critical to the rational functioning of government initiatives that inevitably follow a disaster. This is a classic case of where "vision plans" of where development can and should occur become very important – a proactive versus reactive (regulatory) view of the world. Sadly, disasters often provide such the context and impetus for such efforts.

Purpose of This Handbook

ASLA recognizes that landscape architects have day-to-day exposure to public health and safety issues. This handbook is provided as a system for preparedness enabling a systematic and timely response when a disaster strikes.

- **Change:** Things change. People come and go. Therefore, this handbook does not include person-specific information. Instead, ASLA maintains a Disaster Response website that is continuously updated with contact names and information.
- **Priorities:** A disaster is not a priority until it happens. Therefore, this handbook is low maintenance and easy to follow. It will not require extensive pre-planning or budgeting to keep in force after the system is established in your organizational structure. Just as it is recommended that everyone should replace smoke detector batteries at the six-month time change, ASLA national and chapters should schedule a disaster preparedness update on a specific date each year. Each chapter should identify a “disaster coordinator” that annually reviews the chapter’s preparedness to respond or what can be the “go to” person with others when a disaster occurs (e.g., Chapter President, other leader, or someone with specific responsibility for disaster coordinator). With this handbook, a chapter can install the system, and it will only need to recharge the batteries annually thereafter.
- **Sources of Expertise:** Disasters come in many forms, and each kind has its own unique demands and characteristics. This handbook does not attempt to delineate all of those characteristics. On the ASLA Disaster Response website, there is a resource list of landscape architects with expertise in particular kinds of disasters, such as hurricanes, tsunamis, tornados, firestorms, earthquakes, and floods as well as man-made disasters. For disaster-specific information, the listed landscape architects are the best resource for immediate useful information.
- **Common Elements:** Regardless of the kind of disaster, all disasters share some of the same elements. Volunteer preparedness, humanitarian assistance, and post-disaster response are the three common elements addressed in this handbook. They form the framework for response to any kind of disaster.
- **Roles – Chapters & National:** For localized disasters, ASLA chapters have the lead responsibility in disaster response, with ASLA National serving as a resource. For broader regional or statewide disasters, local chapters continue to take the lead in their local areas; ASLA National has the lead responsibility for coordinating between chapters across state and regional lines. This handbook includes the system that ASLA National uses in the event of a disaster so that chapters know what to expect. Chapters have the responsibility for business continuity of the chapter– records, contact during disaster, tracking, etc.
- **Set Priorities – You, Your Family, Your Community:** It is impossible for an individual to successfully volunteer in a disaster if he or she is personally not able to function. The example most often cited is that when an airplane depressurizes an adult traveler is instructed to put on their oxygen mask first, then and only then, assist a fellow passenger or a child flying with you. Therefore, this handbook includes a system for volunteers to use in assessing and insuring their own preparedness and safety at work and at home prior to helping a neighbor. In addition to ensuring that the volunteers are themselves able to help in a disaster, rather than finding themselves on the receiving end of a response effort, volunteers should take this system seriously. In addition, using the systems outlined in this document affords individual landscape architects an opportunity to model for the broader community, as a higher standard of preparedness for the next disaster.

Primary System: Disaster Preparedness

Desired Result: To provide organized and effective expert assistance to individuals as well as private and government organizations in the event of an emergency.

Responsibilities:

- ASLA National for coordination of preparedness state to state, and for response in multi-location disasters, in addition to providing support to local chapters before, during, and after disasters.
- ASLA chapters for coordination of preparedness and response to members in localized disasters within a state (or Chapter limits, if more than one state), as well as coordination of stand-by readiness to travel to other locations when assistance is necessary and requested by another Chapter or National.

Disaster Relief Volunteers to operate all systems for preparedness and response.

1. ASLA National will prepare and maintain a designated website for use as a resource, including the following information that is of immediate value in an emergency:
 - Downloadable PDFs of all disaster assistance systems in this tool kit
 - Downloadable PDF contact lists and phone tree supplied by chapters
 - A list of ASLA members and others with experience in specific disaster types as well as contact information
 - In the event of a disaster, the website will also serve as a real-time information resource, including messaging in place of using telephone communications
 - Links to external resources, such as FEMA Office of Emergency Preparedness and the American Red Cross, providing immediate disaster assistance and emergency relief information
2. ASLA National will establish and maintain system for coordinating disaster assistance readiness at the regional, state and other multi-chapter levels. (See System #5)
3. ASLA chapters have the responsibility for the following:
 - Identify, prepare and maintain response team volunteers, and establish strategic partnerships with other locally-based agencies and organizations (see System #1 and System #2)
 - Establish and maintain physical and procedural preparation for disaster relief headquarters and at least one back-up location; and encourage all volunteers to be similarly prepared. (See System #3 and supporting assessment questionnaire)
 - Establish and maintain system for response when disaster strikes, including volunteer call-out, administrative support, and appropriate timelines (See System #4)

System #1: Identify a disaster response coordinator and assemble volunteer team

Goal: To designate a lead contact for disaster assistance and an up-to-date list of volunteers to be called out in the event of a disaster.

Step #1: Ask for volunteers to serve as disaster response coordinator for a two-year period. Qualified volunteers should demonstrate the following:

- Willingness and capacity to serve as key contact point for volunteers, chapter designees, ASLA National, and outside agencies in the event of a disaster
- Personal preparedness for a disaster (see Personal Preparedness System), or willingness to do so within a specified time period
- State Office of Emergency Services certification or training
- Prior emergency assistance experience desirable

Step #2: Select a disaster response coordinator and at least one back-up designee

Step #3: Submit names and all contact information for coordinator and back up designees to ASLA National

Step #4: Schedule OES training, and invite volunteers

Step #5: Prepare list of volunteers, including all contact information. Store list in Disaster Handbook (see Disaster Handbook system).

Step #6: Issue Volunteer Preparedness System to volunteers. Volunteers submit completed checklist by specific date. Store checklist in Disaster Handbook.

Step #7: Prepare Volunteer ID badges with names & contact phone numbers for each volunteer. Store with Disaster Handbook.

Step #8: Prepare volunteer cards with names and chapter phone number. Do not issue; store with Disaster Handbook.

Step #9: Prepare volunteer phone tree to enable rapid contact of volunteers. Assign phone tree positions and file copy in Disaster Handbook.

Step #10: Schedule next annual update of coordinator/volunteers, to include:

- Updating coordinators/volunteers information, and preparedness checklists
- Discard old Ids and cards
- Scheduling new training updates if necessary
- Submitting revised information to ASLA National

System #2: Establish disaster response team partnerships

Goal: To identify appropriate affiliates and partners in disaster response, and to maintain key contact information. This should occur on a national, state and local level (perhaps even international). In something as catastrophic as Katrina there was a need for national coordination and in event of war, there would need to be a national response.

Step #1: Identify private organizations appropriate for disaster response partnerships if available. Examples: medical professionals, allied design professions, disaster relief organizations, etc.

Step# 2: Identify appropriate government agencies already involved in disaster response. Examples: local parks departments, local planning department, local building and public works departments, local offices of emergency services, police, fire & rescue, etc.

Step #3: Make contact with each organization/government agency to obtain appropriate contact information

Step #4: Prepare contact list and store up to date contact lists in Disaster Handbook

Step #5: Schedule next annual update of contact list

System #3: Volunteer/Chapter Preparedness

Goal: To ensure that reasonable precautions are taken to enable volunteers and chapters continued ability to function in the aftermath of a disaster.

Step #1: Chapter should personalize preparedness assessment checklist with the name, address, and deadline for submitting the assessment questionnaire.

Step #2: Chapter and volunteers complete the checklist and submit as instructed.

Step #3: Checklists to be filed in Disaster Response Handbook.

Step #4: Chapter to maintain three (3) copies of Disaster Response Handbook: one in coordinator's possession; one at ASLA National HQ; and one at a designated off-site location. Handbook to include the following:

- Volunteer list & contact information
- Phone Tree information
- Web address of ASLA National Disaster Response website
- Preparedness assessment questionnaires
- All disaster response systems & updates

Step #5: Chapter should prepare resource/contact master list that will be provided to private citizens upon request. Include names and contact information for local landscape architects as well as other resources. Hard copy filed in Disaster Response Handbook. Electronic version stored as PDF file.

Step #6: Establish a directory of priority hazards at the chapter level, such as local schools that are not earthquake retrofitted; public buildings and landmarks in hazardous zones; infrastructure landmarks such as airports and other transportation hubs; and other places where the public congregates and where a disaster might have immediate impact. Update the directory periodically and store with Disaster Response Handbook.

Implementation Resources for Chapters: It is intended that the chapters primarily rely on their own volunteer efforts and financial resources for completing most tasks. Chapter funds may also be used as matching funds for CIP grants from ASLA National to implement qualifying Volunteer/Chapter Preparedness tasks that might also fall within the CIP grant guidelines.

System #4: ASLA National Disaster Preparedness Resources

Goal: To develop and maintain a disaster preparedness website for use by local chapters as a resource in responding to disasters and to ensure that ASLA National can continue to operate in the event of a local disaster.

Step #1: Complete assessment used for volunteers and chapters. Establish plans for completion and timelines.

Step #2: Establish a list of members with disaster-specific expertise, who are willing to serve as resources. Provide name and contact information on website and as downloadable PDF.

Step #3: Establish Frequently Asked Questions document that can be downloaded and provided to private citizens seeking guidance in rebuilding or assessing damage.

Step #4: Establish key contact and back-up within ASLA National staff and system for ASLA National generated contact to chapters where disasters have occurred. List contact information on website.

Step #5: Obtain from chapters the names and contact information for local disaster response coordinators and alternates, including dates when terms expire. Post on website.

System #5: Disaster Response Volunteer Call-Out

Goal: To call out volunteers for response in the immediate aftermath of a disaster, but prior to formal recovery activities. To respond appropriately and immediately to first tier emergencies (such as rescue assistance and evacuation), and second tier emergencies (such as safety evaluation of the natural and built environment particularly in the public realm including infrastructure).

Step #1: Disaster Response Coordinator call chapter contact to establish first priorities, information to be given to volunteers, and meeting place if necessary.

Step #2. Activate volunteer phone tree to call in volunteers.

Step #3. Set up headquarters and administrative volunteers. Contact ASLA National to report headquarters is activated. Ask for resources & support if necessary.

Step #4. Prepare white board or other tracking system to identify where volunteers are dispatched, for what time period, and how to contact. Assign a volunteer to maintain tracking system.

Step #5. Coordinator or designee identifies first tier emergencies, set first shift (4-6 hours) and dispatch volunteers. Post on tracking system.

Step #6. Provide support for first tier volunteers as appropriate if possible

Step #7: Terminate first tier response phase when appropriate, and record on tracking system. Do not send first tier volunteers back without at least one-hour rest, if at all possible. Provide support such as water, food, a place to rest, etc.

Step #8: Identify second tier emergencies and dispatch volunteers for second shift; record on tracking system, and terminate shift as for Step #7.

System #6: Third Tier Emergencies

Goal: To facilitate the transition from volunteer emergency response consisting of first tier and second tier emergencies, to third-tier emergencies relating to planning, recovery, and proposed regulations and legislation immediately following a disaster

Step #1: Assess, evaluate, and list third tier emergencies:

- Civic needs, including infrastructure, public spaces, streets, parks and locations for on-going services that have been displaced
- Victim needs, including returning to and repairing damaged homes and businesses; beginning the process of rebuilding; choosing professionals to assist in recovery, etc.
- Public policy needs, including participating in emergency committees on regulatory or statutory changes, assessment of public planning issues

Step #2: Identify which third tier emergencies, if any, are primarily most appropriate for fee-based professional services by individual members. Offer contact lists and Frequently Asked Questions.

Step #3: Identify which third tier emergencies are most appropriate for organizational partnerships and/or sponsorships – for example design charettes, workshops, seminars, etc. Designate a volunteer to manage each activity.

Step #4: Identify which third tier emergencies require a specified volunteer or volunteers to represent the ASLA from a public policy standpoint – such as task forces, committees, public hearings, etc. Designate a volunteer and process for each activity.

Step #5: Identify proactive opportunities to further the cause of public preparedness for the next disaster. Example: column on a newspaper opinion page; website on important lessons learned; outreach to homeowners associations and civic groups. Assign each project to a volunteer.

System #7: Ensuring Disaster Assistance Readiness

Goal: ASLA National will assist chapters in maintaining up to date records, systems, and resources for optimal preparedness in the event of an emergency.

Step #1: Design a disaster preparedness maintenance calendar, identifying initial deadlines for completion of systems and including annual update schedules.

Step #2: Provide e-mail reminders for chapters, officers, and disaster assistance coordinators to update volunteer lists, offer new training, check supplies, and review physical preparedness conditions.

Step #3: Encourage OES training, but with particular emphasis on areas where there are insufficient numbers of registered emergency volunteers who have been trained by OES.

Step #4: Work with chapters to coordinate local, regional, or statewide disaster assistance drills at least once per year, including testing phone trees, call-out procedures and response, and website features such as downloads, bulletin board and tickertape status reports. Obtain feedback and make revisions and improvements accordingly.

Step #5: Establish and distribute a decision tree clearly showing how lead responsibility is to be assigned for disaster assistance activities:

- If the disaster is local, chapter takes lead and ASLA National serves as resource.
- If the disaster is local and the chapter is rendered inoperable, ASLA National takes lead upon request from local chapter leaders or disaster assistance coordinator.
- If the disaster is regional involving two or more chapters, ASLA National takes lead until chapters are fully operational.
- In any disaster where volunteers are requested from outside the local area (including outside the state), ASLA National serves coordination role among those volunteers

Step #6: Establish and maintain a post-disaster response system, to coordinate resources for legislative activities that may stem from the aftermath of an emergency.

Step #7: Establish and maintain disaster records and histories; de-brief volunteers and incorporate their experiences and recommendations in ongoing system improvements.

Disaster Preparedness Assessment Checklist

ASLA National asks all chapter leaders and disaster assistance volunteers to assess their own risk and readiness in regard to hazards and the potential for disaster, for two reasons:

1. To ensure your ability to function in the event of a disaster, to be of service as a volunteer in disaster relief and to be available to your clients who may suffer loss in the event of a disaster
2. To set a standard of preparedness for the community at large.

Please complete and return this checklist to the local ASLA chapter

1. Name
2. Firm Name
3. Business Address
4. Business Telephone
5. Fax
6. E-mail
7. Cell phone
8. Home address
9. Home phone
10. Emergency contact – Local, if possible

Name

Phone

Relationship

11. Medical Contact

Name/contact information of doctor

Insurance Carrier

12. Are you certified for safety evaluations with the State Office of Emergency Services? If yes, as of what date? If no, are you willing to participate in future training to be hosted by the chapter?
13. Have you assisted in disaster response in the past? If yes, which ones?
14. Please list any specific areas of expertise in disaster response, i.e. search and rescue, safety inspection as a local building department deputy, volunteer coordination, and damage assessment?
15. Disaster Response includes a variety of needs. Please check the ones you are interested in fulfilling:
 - Administrative functions such as coordinating volunteers, staffing phones, record keeping, and staffing information kiosks
 - Physical functions such as search and rescue, safety evaluation, and on-site damage assessment

- Deputization by local building department for on-going damage assessment
- Post-disaster response, such as hosting or assisting with seminars; working on government and/or ASLA committees or task forces; or updating disaster response systems

16. Please answer the following questions about your business's preparedness for a disaster:

- A. What provisions have been made for protecting the physical safety of your employees?
- B. Where will you set up a command center if your offices are not available?
- C. What provisions have been made for resuming computer operations?
- D. Have you identified and prioritized critical applications and documents?
- E. Does each job function in your company have a primary and secondary person assigned to perform its critical duties?
- F. Are copies of vital records and legal documents stored safely offsite?
- G. Where are the most recent employee telephone lists stored? How about key vendors and critical customers? How quickly can you contact these people?
- H. Is the location of your office at particular risk in the event of a disaster (i.e., in a high fire danger zone, or constructed of unreinforced masonry, or in a high profile landmark)? Have you defined an alternative recovery site?

17. Please answer the following questions about your personal preparedness for a disaster:

- A. What provisions have been made for protecting the physical safety of your family and/or pets?
- B. Where will your family go if your home is not available?
- C. Have you identified and prioritized critical belongings that you will want to protect/recover? (examples: prescriptions/medication, emergency cash, irreplaceable personal belongings)
- D. Do you have an emergency contact list with up to date names, phone numbers, and addresses?
- E. Are copies of vital records and legal documents stored safely away from your home?
- F. Is the location of your home at particular risk in the event of a disaster (i.e., in a high fire danger zone, or constructed of unreinforced masonry, or near a high profile landmark)?
- G. Have you defined an alternative for temporary living accommodations, if necessary?