

Coordinating Agency:

Washington Military Department
Emergency Management Division

Cooperating Agencies:

All state departments, agencies, baccalaureate institutions, boards, commissions or councils and other organizations assigned primary or support Emergency Support Function responsibilities

INTRODUCTION**General**

A catastrophic incident or disaster is defined by the US Homeland Security National Response Framework (NRF) as “Any natural or manmade incident, including acts of terrorism, which results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions.” Catastrophic incidents comprise a special category within the state’s Comprehensive Emergency Management Plan (CEMP) because they are rare and require significantly greater effort for initial response activities, restoration of essential services and require an extended recovery.

A catastrophic incident results in impacts over a prolonged period, across multiple jurisdictions and critical infrastructure sectors and almost immediately exceeds resources normally available to state, regional, tribal, local authorities and the private sector. Incidents of catastrophic proportions drive response, restoration and recovery requirements beyond normal planning criteria. In addition, the response and recovery phases cannot be effectively separated in time. The magnitude and distribution of effects is such that response, restoration and recovery occur simultaneously in different sectors, and response and restoration activities are likely to have direct effects on recovery.

The uncertain nature of catastrophic incidents means that planning is necessarily general and focused on an adaptive response by state emergency management through the Emergency Support Functions (ESFs) in the State Emergency Operations Center. Catastrophes drive a requirement for exceptional response and support actions due to scope, excessive demand and limitations imposed by the effects of the incident. An operational relationship between local and state emergency managers is likely to emerge as the state implements operations to help local jurisdictions. These processes will in turn be supported by organizations at the state and federal level that only are activated in catastrophic disasters. The annex assumes an immediate need for federal assistance.



“As indicated in the disaster literature...prior planning directly influences how a community responds once such as possibility becomes a stark reality.”

Technical Report #11 There She Blows: The Search and Rescue Response to the Mount St. Helens Volcano, P.34; Kilijanek, Thomas S;
SAR RESEARCH PROJECT
Department of Sociology
University of Denver, 1981

The background information supporting this annex is derived from FEMA modeling of a Cascadia Subduction Zone earthquake and various historical disasters including the Mount St. Helens eruption in 1980, the experience of the State of Mississippi in recovering from the effects of Hurricane Katrina and the experience of the City of Darwin, Australia after Cyclone Tracy in 1974. In addition, the experiences of the states of Florida and California, the report on the response and recovery from the attack on the World Trade Center in New York in September 2001 and the response in Oklahoma City to the bombing of the Murrah Federal Building in 1995 have been instructive. These incidents highlighted interagency planning, communications, planning for recovery and the tendency for people to spontaneously respond and assist each other - universal themes in the catastrophic literature reviewed. The State of Washington has never had to respond to a catastrophic incident of maximum magnitude, with the 1980 eruption of Mount St. Helens the most extensive major incident in the state's modern history.

Purpose

This annex helps state agencies and local jurisdictions prepare to respond rapidly in the case of a catastrophic incident. Studies of major disasters emphasize the need for establishing guidelines in advance to be used post-disaster and interagency planning. Catastrophic incidents break communications channels, isolate responders, hinder delivery of support and present common disaster requirements (e.g. sheltering) at such an extreme scale that actions otherwise unthinkable become requirements. Adjusting responses on the spot (ad hoc) may work for simple requirements, but is often counterproductive for complex, multi-agency actions. Coordinating general courses of action in advance to address activities likely in a catastrophic disaster simplifies communications, speeds response and helps to guide the host of additional participants that commonly become involved.

These pre-coordinated activities and additional response operations are termed here *catastrophic contingency options*. They may be implemented by state agencies to support local jurisdictions. (As this concept is introduced in this annex, the term will be italicized throughout.) Catastrophic disasters are rare in Washington; the demands of such an incident are relatively unfamiliar. Implementing these options will improve state response by helping to adjust for the scope and scale.

“Lesson 31: Rushed post-earthquake inspections of damaged buildings resulted in some inaccurate and emotional assessments that led to inappropriate actions (for example, demolition) in the spirit of protecting public safety, which caused extreme financial impact to owners and renters.”

Practical Lessons from the Loma Prieta Earthquake, P. 14 ; Ed. National Research Council, National Academy Press, Washington DC, 1994

The annex describes the term *catastrophic contingency options* and provides general development and implementation guidelines. Development of *catastrophic contingency options* can be based on reasonably predictable estimates of incident scenarios even though the full set of specific requirements must be determined at the time of the incident. Attached to this annex is nominal list of contingency options. The objectives of these options are:

1. Increase speed of action by governmental entities in decision-making, prioritization, provision of support.
2. Establish models, platforms, procedures or tools facilitating public/private or inter-jurisdictional cooperative action.
3. Enable simultaneous actions by many public and private entities which are semi-independent but connected.

4. Help stakeholders at various levels perform effectively by summarizing likely decision issues.
5. Develop alternative procedures in case routine procedures fail due to disaster effects.
6. Coordinate a planned basis for many catastrophe-related actions prior to advent of the disaster.

Properly developed *catastrophic contingency options* will be broadly coordinated with affected agencies and other partners to inform decision-makers and form the basis for communications.

Scope

This annex addresses the development of *catastrophic contingency options* by state agencies as part of their support for the State Emergency Operations Center. In a catastrophic incident distinctly different methods are required for certain response activities. Local jurisdictions and Tribal Nations are encouraged to also develop local versions of *catastrophic contingency options*.

This annex, with appendices, is structured as a guide and communications tool to Disaster Managers and the Sections Chiefs of the General Staff functions within the Washington State Emergency Operations Center (SEOC). In addition it is intended to serve, together with the *catastrophic contingency options*, as a tool to facilitate communications between and among jurisdictions in the case of a catastrophic incident. Public-private coordination and partnering is emphasized but requires significant coordination with willing partners in the private sector to make such partnerships a reality. As such *catastrophic contingency options* are expected to support and extend current public/private coordination initiatives. *Catastrophic contingency options* must be exercised in whole or in part on a regular basis to offer realistic options for response following a disaster; therefore state agency exercise planners must include *catastrophic contingency options* in exercise planning schedules.

Policies

See basic plan.

SITUATION AND ASSUMPTIONS

Situation

Washington State is vulnerable to technological and natural hazards with the potential to cause significant casualties and infrastructure damage. Disasters labeled 'major' are not uncommon, and the Washington State CEMP addresses the response requirements of major disasters caused by floods, earthquakes, wildfires, tsunamis or terrorist incidents. These typically impact a limited geographic area and population.

In contrast, a catastrophic incident (which may be one or a combination of incident types) impacts a large area or across many societal sectors. While current mitigation efforts are focused in part on catastrophic scenarios in an effort to reduce impacts, a catastrophic incident is one that overwhelms - even though mitigated structures are expected to be more resilient. The scale of the incident operates on many levels - personal, structural, infrastructure services and governmental. The nature and extent of damage; number, location and severity of personal injuries; type, availability and condition of surviving

resources; and the damage to critical infrastructure all are likely to be in the extreme range. The extreme scale also severely disrupts the normal environment in which response, restoration and recovery assumptions are designed to operate.

Various ways of identifying and classifying catastrophic disasters exist. Currently, existence of one or more of the following criteria is indicative of a catastrophic incident (though this list is not exhaustive):

- The impact affects many sectors of multiple jurisdictions or within a geographic area.
- The incident results in thousands of casualties (deaths and injuries) and/or tens of thousands homeless and/or displaced survivors.
- One or more incidents are of such severity and magnitude that effective response is clearly beyond the capabilities of the state and affected local governments, necessitating the immediate need for supplemental federal assistance.
- Washington State has substantial resources available to respond to disasters, so an incident must have significant magnitude to require almost immediate supplemental federal assistance. Examples include very large earthquakes affecting populated areas (and associated tsunami), extreme terrorist incidents such as nuclear detonation, a major cyber incident, certain animal diseases or human epidemics and volcanic eruptions.
- The incident impacts critical infrastructure broadly or to an extreme or at multiple locations. These include energy, transportation and finance.



Photo by Billbee (Bill Bradley)
<http://en.wikipedia.org/wiki/>

“The problem with the storm damage in Darwin was that it was so extensive; there wasn’t much left to do anything with.”

TRACY: The Storm That Wiped Out Darwin on Christmas Day 1974, P.201; McKay, Gary; Allen & Unwin, Crows Nest NSW Australia, 1997

The US Department of Homeland Security (DHS) has developed the following 15 catastrophic incident scenarios (termed National Planning Scenarios):

- Nuclear Detonation (10 kiloton ground-level burst)
- Biological Attack – Aerosol Anthrax
- Biological Disease Outbreak – Pandemic Influenza
- Biological Attack – Plague
- Chemical Attack – Blister Agent
- Chemical Attack – Toxic Industrial Chemicals
- Chemical Attack – Nerve Agent
- Chemical Attack – Chlorine Tank Explosion
- Natural Disaster - Major Earthquake
- Natural Disaster - Major Hurricane
- Radiological Attack - Radiological Dispersion Device
- Terrorist Use of Explosives
- Food Contamination
- Foreign Animal Disease
- Cyber Attack

The federal planning approach is to develop detailed plans for each scenario. However, the approach of this annex is for the State to develop options that can be applied in any large-scale disaster and which address the most extreme effects of a catastrophe. While some scenarios will have some very specific risks (such as nuclear explosion) they also have many common impacts (such as a need for mass sheltering). Responders and emergency managers reacting to any catastrophic incident should be able to use the appropriate *contingency option* regardless of the exact nature of the disaster.

Impact

FEMA summarizes impacts of catastrophic incidents in a meta-scenario. The FEMA definition has been here generalized for large regions of Washington and includes:

- No notice event with an impact to virtually all people in a multi-county area
- A fatality rate in the range of 2.7% of the population in the initial hours
- An injury rate in the range of 3.8% requiring emergency medical attention
- An interim housing requirement in the range of 5.3% for a lengthy period
- Serious damage to 10% of residences
- Severe and persistent damage to facilities for or denial of access to electrical power, fuels and potable water
- Severe damage or persistent denial of access to essential transportation infrastructure resulting in isolation of the region from outside support and hindering movement within and between jurisdictions.

“Getting sewn up isn’t pleasant at the best of times, but now it was worse because the hospital had very quickly run out of local anesthetic and stitching was being done with only care and soothing words to ease the pain.”

TRACY: The Storm That Wiped Out Darwin on Christmas Day 1974, P.182; McKay, Gary; Allen & Unwin, Crows Nest NSW Australia, 1997

These very extensive effects reflect a concept known as Maximum-of-Maximums that sets as the basis for planning efforts the largest damage factors for hazards.

Impacts in prior catastrophic incidents suggest the following outcomes are genuine possibilities in Washington:

- Affected jurisdictions are overwhelmed.
- Immediate, persistent and widespread shortages of supplies.
- The availability of resources within affected sectors may be drastically reduced, consequently altering assumptions and prioritization efforts at every level of government.
- The availability of resources from outside the area is initially reduced, then becomes overwhelming as contractors, responders and material flood the affected regions and potentially affect local controls.
- Extensive damage or limited access to roadways have consequential impacts such as access to emergency shelters, slowing relief supply delivery, evacuations including of those requiring medical support, and slower-than-normal utility repair.
- Utilities normally conducting repair operations independently may need to coordinate with each other and local jurisdictions for priority access and fuel.

- Logistical support for coastal areas may have to be temporarily provided from marine platforms.
- Enormous stresses on the medical system due to disruption of care facilities, additional patients and the need to conduct triage/medical care at ad hoc sites and/or loss of pharmaceutical supplies and services.
- Huge overtime costs for jurisdictions, possible conflicts with employment contracts and/or need to add temporary personnel or use volunteers.
- Result in informal partnerships between multiple jurisdictions, businesses and non-governmental organizations.
- Unconventional structures will become shelters.
- Demand for government services such as building inspection and permitting will overwhelm agencies.
- Government services may have to be conducted in temporary facilities.
- Increased exposure of individuals and businesses to potential fraud and substandard work with limited recourse.



Photo by Harry Glicken, USGS/CVO
<http://commons.wikimedia.org/wiki/>

“First, it is critical to understand the political nature of the planning process. Decisions had to be made which affected private property owners, logging interests, recreational interests and a multitude of private and public organizations.”

Technical Report #11 There She Blows: The Search and Rescue Response to the Mount St. Helens Volcano, P.48; Kilijanek, Thomas S; SAR RESEARCH PROJECT Department of Sociology University of Denver, 1981

Assumptions

- A *whole-of-government* response will be implemented (for description see pg 12). This idea, while not commonly associated with disaster planning today, assumes the some of the normal statutory missions of a great number of state agencies (possibly in a combined effort) may be reprioritized so resources can be focused on response and restoration of services. The Washington Restoration Organization and Recovery Task Force are essential components of the whole of government concept, as is an integrated response including local jurisdictions, state and federal agencies.
- The volume of assistance requests from multiple jurisdictions, organizations and sectors impacted will overwhelm state agencies and ordinary response organizations. This situation will persist for days-to-weeks.
- Many jurisdictions and individuals will not receive requested help for days-to-weeks.
- Survivors in government agencies will implement governmental Continuity of Operations (COOP) Plans.
- The Governor will proclaim an emergency within hours, then request and receive an expedited major disaster declaration from the President.
- The incident itself may be the signal to begin operations - i.e. if the ground shakes hard for 4+ minutes emergency activation, at the very least, should be assumed.

- FEMA and Washington State will rapidly merge operations between the Joint Field Office (JFO) and the SEOC.
- State agencies and local jurisdictions will implement mutual aid agreements through the Emergency Management Assistance Compact (EMAC), intra-state mutual aid and the Pacific Northwest Emergency Management Arrangement (PNEMA).
- Personnel augmentation at the SEOC by state agencies and at local Incident Commands or Emergency Management Centers will be required for an extended period of time.
- State and local governmental agencies will modify certain current operations and/or procedures to increase production, reduce waiting times or otherwise effectively increase resources and/or availability.
- The various procedures and protocols in the appendices to this annex will be familiar to the individuals executing catastrophic operations.
- The response phase will include many non-traditional sources of aid and collaborative prioritization of resources among multiple jurisdictions.

CONCEPT OF OPERATIONS

General

This annex describes potential operational activities in excess of normal response actions or involving unconventional arrangements which will be implemented in addition to typical operations in a catastrophic disaster. These potential activities will be developed and referred to as *catastrophic contingency options* and consist of protocols, procedures and frameworks to be used as guidelines in initial response and restoration operations. In sum these options will constitute a playbook of coordinated procedures emergency managers may use to implement extraordinary response measures. They are developed to establish a common set of goals including any scenario-specific options.

“Propensity to evacuate varied according to the severity of earthquake effects, with the highest proportion of residents (about 43 percent) evacuating in the heavily damaged areas of Santa Cruz County. Most of the respondents in this sample returned to their homes within 24 hours.”

Practical Lessons from the Loma Prieta Earthquake, P.111 ; Ed. National Research Council, National Academy Press, Washington DC, 1994

Catastrophic contingency options are developed to be implemented based on a proclamation of emergency by the Governor or successor. They are designed to overcome the likely effects of catastrophic incidents including:

- an increase in assistance requests by one or more orders of magnitude severely overloading emergency management capacity
- the need for multi-agency workgroups and/or public/private partnerships to address specific ESF taskings rapidly and efficiently
- operations at the state level supporting and integrating with similar operations at the local level (e.g. volunteer management of individuals from outside the disaster area)
- persistent lack of situational awareness and severely reduced communications capability
- decisions that must be taken before full knowledge of disaster impacts is available
- shared or networked resource implementation (e.g. call center services)

- coordinating the participation of many more organizations and jurisdictions than usual

Most *catastrophic contingency options* do not exist yet, though various agencies have conducted significant internal disaster planning. As *catastrophic contingency options* are developed in detail and coordinated they will be included in an appendix to this annex and referenced in the CEMP annexes of the primary ESFs. The SEOC Alert and Warning Center maintains a library of standard procedures to which *catastrophic contingency options* will be added.

Priorities and Objectives

The state's priority to assist and support the local authorities remains unchanged. The standard set of objectives continues to apply: to protect lives, property and the environment, and to support the economy of Washington State. In a catastrophic incident, the State EOC will expand operations to Phase IV and begin to address both known effects and assumed effects and will posture its operations to accommodate the extraordinary demands of a catastrophe. Significant gaps are expected and must be identified. The likely responses of various partners - federal and local - and difficulty communicating with local jurisdictions will affect the SEOC's ability to proactively manage the response environment. Immediately following the incident the SEOC will need to:

1. Establish and disseminate a comprehensive situation assessment including revised information for state agencies implementing their COOPs
2. Coordinate the physical and operational implementation of a federal JFO
3. Provide any pre-coordinated relief or request the resources to do so
4. Increase the capability of the SEOC to respond to and deliver support to local jurisdictions
5. Implement procedures to broadly coordinate resource distribution priorities
6. Identify and implement any requirements for combined operations with local jurisdictions

Generally, the SEOC will implement items 3 through 6 using the guidance in the *catastrophic contingency options*. The SEOC will coordinate with the Governor's office on the Emergency Proclamation with special attention to authorizing *catastrophic contingency options*. There will be a recommendation to establish the Recovery Task Force (RTF - see pg 17) including staff support. These actions directly support the SEOC's normal mission. In addition, a catastrophic incident is likely to require significant state support for objectives which are typically implemented by local owners/operators or local jurisdictions:



Photo Dylan McCord, USN
<http://commons.wikimedia.org/wiki/>

"Japan's government proposed a special \$50 billion (4 trillion yen) budget to help finance reconstruction efforts Friday and plans to build 100,000 temporary homes for survivors of last month's devastating earthquake and tsunami."

Ravi Nessman and Yuri Kageyama (April 22, 2011) Japan Plans Disaster Budget, building 100K Homes; Associated Press accessed from <http://www.msnbc.msn.com/> on April 22, 2011

1. Restore infrastructure
2. Retain businesses and restart schools
3. Address housing requirements from intermediate and long term perspectives

The SEOC will be required to develop, coordinate and implement a clear process for managing state activities as they transition from Response to Recovery including the strategic communications plan associated with the transition.

Key Concepts

Prior planning is critical to success following a catastrophic disaster. While some responses will be developed on the spot, it will be difficult to enact them broadly because communication will be poor, travel limited and knowledge of nearby situations deficient. Procedures that address the general requirements of a catastrophic scenario need to be developed in advance with time to allow coordination between partners and a good general understanding of how to implement the procedures.

The principal concept implemented in this annex is that of the *catastrophic incident option*. This is a general framework, coordinated in advance with participants including local and federal partners, for conducting a particular function that typically will only be invoked in the case of a catastrophic disaster or possibly an unusual, major disaster. *Catastrophic contingency options* need to be developed in sufficient detail to: form a framework (not a fully developed plan) for operations or other activity; provide a common basis between participants and allow flexibility when implemented to fit the situation as appropriate. A key element of a pre-coordinated *catastrophic incident option* is to improve and simplify interagency and inter-jurisdictional communication at a time when the disaster itself interrupts normal communications. State agencies will be required to process an overwhelming volume of requests; they will need to prioritize in the glare of public attention and form an effective partnership with the federal government and various Non-Governmental Organizations (NGOs). *Catastrophic incident options* can address situations expected to arise which will be new or novel in the experience of responders or managers and to which some type of response is required. *Catastrophic incident options* will address a wide range of topics and must reflect characteristics specific to producing an effective catastrophic incident response. As a fundamental characteristic, *catastrophic incident options* will incorporate some or all of the following critical components:

- Time is of the essence - this applies in all areas of response. The SEOC in particular must rapidly scale operations in order to respond to a volume of assistance requests one or two orders of magnitude greater than usual.
- Multi-disciplinary teams providing interagency coordination or integration of effort to accelerate state-level response to and throughput of local requests for assistance.
- Multi-jurisdiction cooperative response operations and regional coordination.
- Private/Public partnerships to maximize the use of potential resources and leverage multiple informal communications channels.
- Proposals for reasonable, temporary modifications to elements of the regulatory environment recognizing the effects of the disaster may render numerous rules impractical or infeasible or even increase the risk to people and property.
- Facilitate the inclusion of individuals and many non-governmental response groups in the overall response effort.

- Guide State EOC response activities which may include coordinating operations directly, combining operations in the JFO and identifying policy issues.

Catastrophic incident options may be developed in a variety of forms depending on the required outcome. The most common form for a *catastrophic incident option* will be a protocol, procedure or a very general plan. Because the first, second and third order effects of a catastrophic disaster are difficult to predict with precision, a *catastrophic incident option* need not be a full plan addressing every requirement in detail. Instead these options may simply be serviceable platforms for scaling up response capability, including new partnerships and implementing unusual operations. They may be seen as a bridge from standard operations to catastrophic operations allowing the state to respond effectively in the first few weeks and a basis to which appropriate situational adjustments may be applied.

- A protocol is an agreement between agencies or jurisdictions (or both) to conduct certain operations according to a particular set of procedures, constraints or objectives.
- A procedure is a method or process for accomplishing a (usually narrowly defined) particular set of tasks or objectives.
- A general plan is a broad description of participants, objectives, roles, organization, equipment and timing coordinated between participants to achieve a particular goal.

The implementation of a *catastrophic incident option* is initiated by the Governor as part of an emergency proclamation, executive order or directive. Implementation may involve a select item of the governor's emergency powers, provide general guidance for a broad range of activities such as standards of medical care, or authorize special uses of governmental property - for example the use of parks as intermediate housing sites.

Catastrophic contingency options may apply generally or to specific areas or situations. State agencies develop particular protocols, specific regulatory relief requests, procedures or action plans prior to a catastrophic incident to be implemented on proclamation of a catastrophic disaster. They must be developed with broad participation and coordinated between jurisdictions to facilitate integrated response by affected parties. *Catastrophic contingency options* may incorporate specific cultural contingencies to assist tribal entities. The concept of the Whole Community as detailed in various FEMA publications and considerations for individuals with various disabilities are critical elements of *catastrophic contingency options*. A wide variety of constituencies will be consulted in the development of options (for example, see the US Dept of Justice *ADA Best Practices Tool Kit for State and Local Governments*).

The potential range of topics (or extraordinary activities) for a *catastrophic incident option* is very wide. A nominal list of topics is appended to this annex; however certain issues that



Photo by C. E. Meyer, US Geological Survey
<http://commons.wikimedia.org/wiki/>

“Lesson 31: Local governments should develop and implement strategies, procedures and training for post-earthquake inspections. These should be communicated prior to the event to avoid costly mistakes...”

Practical Lessons from the Loma Prieta Earthquake, P. 14 ; Ed. National Research Council, National Academy Press, Washington DC, 1994

have been present in prior catastrophic disasters or that clearly apply to response processes in Washington must be addressed:

- Prioritization of state agency activities through RTF deliberations and implementing response actions to help rapidly scale up resource availability or track high-visibility operations.
- State-level Public/Private cooperation to restore infrastructure by establishing essential base services - electric power, communications, roadways/railways, marine and air ports, energy and potable water.
- Proposing limited, temporary regulatory relief allowing more rapid completion of response and restoration activities throughout the public and private sectors.
- Extensive, logistical staging and support plans to bring in supplies from outside the area and planning integrated with local jurisdictions to distribute them in the affected area.
- Procedures to maximize the number of Washington residents employed in response and restoration activities through contracting and training.
- Establishing volunteer management or other operational procedures at the state level as a companion to local operations managing resources outside the impacted area.
- Implementing plans to restart schools quickly in coordination with neighborhood renewal.
- Prompt consolidation of resources that are high-demand items in limited supply, best managed centrally or which require very specific logistical support (e.g. helicopters).
- Integrating SEOC and federal JFO operations.
- Develop a consistent exercise model limiting scope to allow development of procedures in detail, heavily tasking the SEOC, integrating plans federal-to-local and testing unusual partnerships or processes.



Photo courtesy Infoagation
<http://commons.wikimedia.org/wiki/>

“Recommendation 2: Maximize the wise and coordinated use of multiple recovery assistance tools including funding, technical assistance and policy initiatives to ensure that affected municipalities and counties are able to address local needs and recover in a way that takes advantage of the post-disaster window of opportunity to build back communities that are better places to live, work and play than they were before the disaster.”

After Katrina: Building Back Better than Ever, P. 156; (Report to Honorable Haley Barbour, Governor of the State of Mississippi); Governor's Commission on Recovery, Rebuilding and Renewal, 2005

Prior planning is critical. It will not only be necessary to comply with legal requirements, but also for many parties to work together to coordinate temporary adjustments which acknowledge a radically altered environment - physical, social, financial and cultural. The altered environment calls for altered approaches that enable broad-based restoration and recovery to be accomplished by the combined actions of many thousands of individuals.

Recovery is not specifically addressed in this annex, but the portion of response providing restoration of critical services is a key precursor to recovery. Also many response activities

will affect recovery choices. To the degree possible inter-jurisdictional partnerships in response may be leveraged to support integrated recovery activities. The examples below demonstrate possible recovery objectives that incorporate the principals of *catastrophic incident options* and how recovery-oriented options may be an extension of response.

- Promptly complete all initial structural inspections of governmental, utility, industrial facilities and residential properties and maintain capacity for conducting prompt re-inspections.
- Significantly augment key governmental workforces necessary to restoring baseline services such as building inspection and utility service.
- Establish lines of credit or other financing capabilities, extraordinary governmental appropriations and similar financial means to support ongoing jurisdictional operations.
- Request modifications to banking regulations in order to facilitate micro and other loan activities, stimulate business and enable individual rebuilding efforts.
- Establish broad guidelines supporting interim housing solutions proposed by individual jurisdictions to move individuals out of shelters and into intermediate housing sited as near to their original neighborhoods as practicable.
- Prioritize response activity which supports and enables retail, wholesale and manufacturing business resumption accomplished in parallel with neighborhood restoration.
- Coordinate with federal authorities to implement restoration and recovery guidelines which recognize the ‘force majeure’ nature of the incident and balance recovery costs broadly.
- Protect culturally significant structures and resources, provide fair compensation for property owners and balance the restoration of historical structures with the redevelopment of cultural centers.

“The overall economic impacts of this event will not be known for a long time and depend to a significant extent on decisions made during the emergency response and recovery periods, which are still ongoing. The current estimate of direct damage to capital stocks is JY 16~25 trillion (USD 200~300 billion).”

Charles Scawthorn and Keith A. Porter; Aspects of the 11 March 2011 Eastern Japan Earthquake and Tsunami; a Reconnaissance Report by SPA Risk, June 2011, accessed from the web site: <http://www.sparisk.com/> on Jan 25, 2013

Whole-of-government is a practical concept for response to catastrophic incidents and extends into recovery. The typical integration of activities through the SEOC is insufficient to the demands of a catastrophic incident. Specific activities such as feeding or sheltering will require the combined effort of many agencies and non-governmental organization (NGO) partners in an effective, operationally-oriented team. The RTF is a key player in the horizontal (i.e. across and between state agencies) integration of state agency response. In a catastrophic incident the state intends to achieve integration of many diverse teams rapidly and/or to improve the response capability of state agencies to coordinate with and provide resources to local jurisdictions.

Whole-of-government includes ‘vertical’ (i.e. interactions between jurisdictional levels) interoperability from federal through local governments as well. In this respect, the term refers to a cooperative unity of effort between jurisdictions. Local jurisdictions should expect their coordination with state agencies to be much more of a joint or combined effort than usual with gaps in response capabilities being filled by multi-disciplinary teams. Many key

issues at the local jurisdictional level are coupled with state agencies and/or federal agencies through a variety of approval or funding processes. In addition, the whole-of-government concept incorporates a cooperative implementation at a nominal regional level in addition to incident response activities wholly under the direction of a single jurisdiction. Health care, mass shelter and coordination of repair priorities are only a few responses that may benefit from joint regional efforts between cities, counties, state agencies and regional groups.

Catastrophic contingency options will be added to this annex as they are developed and included as part of the SEOC Catastrophic Operations Supplement. A published contingency will contain a summary of reasonably achievable objectives and timeframes, limitations of the option, a short implementation checklist and general reference to the players, contact procedures, in which time-phase following the incident the contingency should be considered and similar relevant details. If state agencies have developed agency plans for specific contingencies, this annex will include these plans by reference in the appendix.

Organizational complexity of responders will increase in a catastrophic disaster and state/local staffs will be required to manage a new, diverse organizational environment. For state agencies this means more agency staff will have to be assigned to this type of disaster than usually required.

- The federal government can be expected to promptly establish a Joint Field Office (JFO). This office will require extensive state agency representation.
- Identifying, prioritizing and requesting resources for assistance requests will require multiple agencies at the state and federal levels working together in functional teams or workgroups at a large Multi-Agency Coordination Center. (MACC - see <http://www.fema.gov/multiagency-coordination-systems>) Teams must integrate with similar workgroups and should include participation by NGOs and private organizations.
- As previously noted the RTF will be implemented. Policy input to the response and restoration process from this group will require staff to administer their processes.
- Within the federal government are hundreds of typed resources - teams and/or equipment - FEMA can task to assist in a declared disaster. Managing these resources is a major concern for state and local agencies. Personnel must be housed, equipment serviced and teams assigned, tasked, evaluated and rotated. Therefore, taskings increase at every jurisdiction receiving assistance.



Photo by J.K. Nakata, US Geological Survey
<http://commons.wikimedia.org/wiki/>

“Lesson 37: State governments should provide legislative incentives for local governments to adopt ordinances and to work cooperatively with adjacent and regional governments and with state and federal agencies to implement seismic safety improvements.”

Practical Lessons from the Loma Prieta Earthquake, P.16; Ed. National Research Council, National Academy Press, Washington DC, 1994

Area commands will become a feature of operations. Many jurisdictions have sufficient capacity to provide most response and recovery activities under their own direction with

some additional resources from the state. The same will not be true for a catastrophic incident. Although jurisdictions prefer to operate independently, managing the shortage of resources - including qualified personnel - will lead responders and jurisdictions to pool resources to meet overwhelming needs.

The standard form of this type of partnership within the Incident Command System (ICS) is Area Command with a unified command group representing all the constituting jurisdictions. This solution can greatly simplify functions such as volunteer management, tasking of specialized resources, large-scale medical operations (including fatality management) and other response or recovery operations. In some areas, such operations can also incorporate multi-state arrangements such as between Clark County and the greater Portland, OR area. It is also possible to visualize international cooperative command arrangements along the US-Canada border where communication channels internal to the geography (a road is a form of communication channel) provide simple routes for people and resources and especially where the populations have existing, close relationships.

Recovery and response phases are mingled in catastrophic disasters. One area clears a road and is ready to begin planning new construction while others are still rescuing trapped victims. Also, the response phase is much longer than usual. Sectors of society are affected each to a different degree. Once the incident has occurred, planning for recovery must become a major effort for some even while response and infrastructure repair are in progress – this is another element of timeliness. The extent of impact, complexity of interrelated recovery actions and likelihood of competing political agendas all are predictors that response and recovery phases will be intermingled over a significant timeframe.

Because of this overlap in response and recovery, traditional measures using a time base (hours or days) can be misleading and are not used in this annex. Instead, this annex adopts the following expressions regarding the phases of Response for purposes of addressing development of contingency options:

- *Initial Response* - In this sub-phase basic situation assessment, rescue of trapped victims, impromptu response by on-scene personnel, stopping disaster processes such as fires or spills and assembling and organizing personnel and equipment are the major issues addressed.
- *Sustained Response* - In this sub-phase a comprehensive situation assessment is built, local responders receive significant help from outside the jurisdiction, the secondary effects (such as shelter requirements) are responded to in a structured or less ad-hoc manner, all disaster processes are definitively stopped, the scope or scale of recovery requirements begin to be cataloged and logistical support matures into a large-scale enterprise.
- *Service Restoration or Transition from Response to Recovery* - In this sub-phase temporary and permanent repairs are completed to infrastructure, interim infrastructure solutions are put in place pending approval of recovery projects, long term recovery projects are proposed and evaluated, restoration of as much of the previous cultural environment as possible including businesses is implemented, schools reopen and residents return to neighborhoods.

Preparation Activities

For a catastrophic incident, preparation consists of determining and coordinating contingency options then exercising and maintaining them. These preparation activities must be

coordinated across jurisdictions and/or between multiple agencies and multiple governmental entities - school and port districts, cities, counties, state and federal agencies. In addition, volunteer organizations, industry groups and disaster response teams such as Urban Search and Rescue (USAR) may need to coordinate and agree in advance on various principals, roles or processes. This cross-jurisdictional effort will require those involved to devote time and resources to development of associated internal policies. State agencies must consider how their operations will be modified, curtailed, extended or established in alternate locations. Possibly various response and recovery activities will need temporary relief from existing regulations under their statutory authority and the Governor must be advised how such temporary regulatory relief may best be achieved. Local jurisdictions will need to consider the similar issues. In short, developing contingency plans is best pursued in a comprehensive manner and focusing on specific objectives.

As procedures and protocols are developed they must be incorporated into exercise programs to be tested, rehearsed and revised as necessary. Exercising a catastrophic scenario requires great control to avoid overwhelming participants so limits as to the various courses of action to be exercised will likely be required. Even relatively simple actions must have a linkage from the federal through the state and impacting response at the local level. Often plans within jurisdictions or agencies have not been synchronized with potential partners so a series of build exercises will be necessary to establish a common basis for the exercise. Since by definition the local level is overwhelmed additional responsibilities are placed on the SEOC to conduct certain operations, to maximize internal efficiency and to proactively reach out to partners, local responders and the public to a much greater degree. The SEOC will be challenged to coordinate with NGO and private entities to maximize both the SEOC's own efficiency and to speed relief to impacted localities. All state and local jurisdictions and/or responders should prepare to be inundated with assistance from volunteer local sources or from the outside. Developing and controlling these exercises will be demanding and require the combined efforts of all participants.

DIRECTION, CONTROL, AND COORDINATION

General

A fundamental experience of governments and jurisdictions in catastrophic disasters is the overwhelming number of taskings, requests for support and expenditure of resources. While this effect cannot be eliminated, organizations can adapt to deal more efficiently with this level of demand. To deal with a high volume of assistance requests and the exhaustion of resources at the local level, multi-agency workgroups can be formed in the JFO and given authority to make operational decisions in support of local requirements. Operational choices must be supported by policy evaluations and approved actions executed in an expedited manner. Lengthy deliberative processes will not support intensive response demands, and actions subjected to such extended evaluation are either unlikely to be used or to proceed unapproved exposing responders to additional risk. At the local level, jurisdictions with strained resources can combine efforts in an Area Command to simplify logistics, improving decision-making and supporting a broader population impacted by the disaster. A significant challenge is to develop organizations, workgroups or processes capable of addressing entire classes of assistance requests with minimum duplication or non-productive coordination. The following constructs for direction, control and coordination are extensions of current plans or ICS standards and require additional development to be effectively implemented.

Local Jurisdictions and Tribal Nations

Local jurisdictions must be prepared to act in extreme circumstances to support their population and to coordinate incoming assistance. Tribal Nations are also encouraged to implement programs addressing prudent preparation for disruptions to social services, commercial delivery, power and transportation.

Key concepts for local jurisdictions and Tribal Nations regarding catastrophic incidents include:

- Implementing a simple, flexible approach to Continuity of Government (CoG) using a system many people can be trained to implement. CoG systems must provide trained personnel at multiple governmental levels to be broadly useful. In a very severe disaster the likelihood that some key people will be unavailable is high for a variety of reasons – out of town travel, impassable conditions and need to attend family among them. Familiarity by many personnel in the jurisdiction of the CoG plans and procedures will simplify and improve communication and support more effective decision-making. Plans for CoG should be rigorously tested from time to time in order to be considered effective.
- Localities should implement self-sufficiency planning for a minimum period of at least several days food, water and sanitation at the individual, company and organizational levels. A local system of checking on and helping populations likely to need assistance is a critical element of local self-sufficiency. A majority of organizations and households prepared for 7-10 days without significant assistance is preferable and much more resilient. This is particularly important in communities subject to isolation due to an identified catastrophic risk factor such as road damage.
- Predetermined alternate communications and methods for establishing basic organizational structure in case of a total communications outage.
- Nominal levels of catastrophic disaster planning including:
 - how to minimize business recovery timeframes
 - initial planning factors for road repair and neighborhood access
 - prior discussions on the authority and availability of potential regulatory relief declarations or requests
 - understanding utility vulnerabilities
 - comprehensive plan revisions suggesting intermediate housing options (including utilities, sanitation and transportation)



Photo by Dylan McCord , USN
<http://commons.wikimedia.org/wiki/>

“As search crews recovered bodies in the weeks following the disaster, they also collected what waterlogged family albums and muddy pictures they found scattered within the rubble. Volunteer groups have since embarked on the tedious tasks of cleaning and organizing hundreds of thousands of photos.”

Survivors Seek Japan's Past, in Photos.
 Daisuke Wakabayashi, *Wall Street Journal*,
 May 11, 2011

- emergency financing of extraordinary expenses and renegotiation of debt based
- adjustment of local procedures such as building permit issuance or inspections.
- Participating in a structured exercise program testing their *catastrophic contingency options*.

In addition, Tribal Nations may require special assistance for their circumstances and cultural heritages. This may take the form of:

- Tribal police from outside tribal partners to assist with security.
- Specialists in cultural artifacts to assist with repair, preservation and recovery of cultural items and sites. (Protection of cultural artifacts is a likely requirement.)
- Mental health assistance from compatible cultural partners.
- Emphasis on physical restoration of natural formations such as river mouths to support economic activity.

Area Command

Local jurisdictions are accustomed to providing emergency management and emergency response services through internal means - independently. Less frequently resources are provided through mutual aid or by requesting support from the SEOC. In a catastrophic incident, such means are assumed to be insufficient. All resources, including knowledgeable personnel, are expected to be in short supply at city, county and state levels. To assist in addressing these problems local jurisdictions in the disaster area should consider establishing an Area Command to address at least a limited set of operational functions. Templates have been developed under the Regional Catastrophic Planning Grants to implement region-wide task forces. Upon agreement by jurisdictions these may gain an operational focus and form an organized basis for cooperative mutual aid. A regional area may be able to combine personnel, expertise and equipment to efficiently handle such functions as volunteer management, debris disposal, fatality management and similar unusual response functions. An Area Command with representation from each jurisdiction can economize scarce resources and enable broad information sharing with a minimum of effort; however, this type of command is dependent on good communication between senior executives within the affected jurisdictions.

When an Area Command is established and the State EOC is aware of the fact, the SEOC will take steps to ensure communications with the command are also coordinated with the establishing jurisdictions.

Recovery Task Force (RTF)

The Recovery Task Force (RTF) organization chart is found in the Washington CEMP Basic Plan, ESF 14 & annexes. The RTF is an expansion of the normal policy team active in the SEOC during activations. This activity is a policy-level Multi Agency Coordination Group within state government and it will have a strong influence on the horizontal (across state agencies and organizations) integration of state activity. The RTF is comprised of the senior executives of State agencies, especially those engaged in supporting incident commands and operations/coordination centers. The RTF may provide coordination of action and/or resource allocation through the cooperation and coordination of agency executives who are authorized to commit agency resources. The RTF may make state agency resources available to responders and conduct multiple activities such as evaluating resources,

identifying requirements for implementation or issuing guidance to affected agencies in support of the activity. However, the SEOC remains the state function responsible for actual disaster response coordination and actions.

One possible result is a resource being ‘delivered to’ the SEOC for distribution to local responders. The volume and variability of activity will require a formalized relationship with the SEOC. Policy questions with an operational nexus and time sensitivity will emerge. The RTF and the SEOC will develop an integrated operational tempo. This situation will present a new environment for tracking, completing and reporting activities. Response-related actions often have a significant time-sensitivity so a structured communication process is very helpful to be effective for impacted citizens and to ensure needs are timely addressed.

JFO and Multi-Agency Coordination

A rapid establishment of the JFO follows from the definition of catastrophic incident – the state must immediately turn to federal resources because of the overwhelming or specialized nature of the incident and the impact on large numbers of people. The transition to a combined state/federal Multi-Agency Coordination Center (MACC) should be planned from the earliest point based on the expectation that local and state agency staff resources will be strained to the maximum. Face-to-face coordination, reduced need for conference calls, ability to collaborate among disparate disciplines and single point of contact or coordination are all benefits of establishing consolidated emergency center operations in the JFO.

Historically, a Joint Field Office has been established in Washington State late in the Response phase or sometime after Response has been completed. Our experience has been that the JFO is active in the Recovery process. However, in a catastrophic incident the JFO comprising up to several thousand state and federal staff will be established quickly. In a scenario such as a major Cascadia, Subduction Zone earthquake and tsunami, the Washington JFO would likely be only one part of an overall federal response to broad regional needs - with JFOs also in California, Oregon, and possibly Alaska. Coordination with British Columbia (BC), Canada is another possible requirement as the lower mainland of BC geographically constitutes a common system of river deltas with Whatcom County in Washington State.



Photo PD-USGOV-USGS
<http://commons.wikimedia.org/wiki/>

“It is clear that after an earthquake the normal ways of doing business are not adequate to accommodate both the pressure for speed in approving projects and the volume of applications.”

Practical Lessons from the Loma Prieta Earthquake, P.223 ; Ed. National Research Council, National Academy Press, Washington DC, 1994

Validated requirements for scarce resources requested by multiple states may also need to be coordinated between the states and clear direction provided to federal agencies. Interstate development of cooperative procedures implemented through federal agencies such as the Dept of Transportation or the Bonneville Power Administration must allow for negotiation of priorities in repairing or reopening infrastructure based on developing situational awareness. Despite national sourcing, federal agencies may have to prioritize

between multiple states and population centers. This subject is likely to remain highly sensitive to a variety of influences, and establishing precise rule sets should not be expected in the near term. The roles of state-level elected officials will be in this domain as well as with their local constituencies and agencies. Federal-level elected officials can also be expected to engage in disaster prioritization processes.

Officials at the local level will articulate their requirements, participate in the constructive distribution of resources dispatched to their aid and provide critical leadership in the disaster area. State emergency management, the RTF and the JFO must be aware of the local requirements and act as honest brokers to the entire apparatus of federal and international disaster relief on behalf of the people, families, businesses and society overcome by the catastrophic disaster.

ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

State Agency Actions

The SEOC will activate to Phase IV (i.e. full staffing all for ESFs and 24 hr/day & 7 day/week operations). Operations will be rapidly coordinated with, if not fully integrated with, the federal JFO. The emergency duties of state agencies are carried out as participants in Emergency Support Functions (ESFs) and by agency staff at agency-level operations centers. Additional measures are required to respond and establish recovery activities for catastrophic incidents.

- SEOC activities are generally coordinated by the agency with primary responsibility under the CEMP for particular functions. Additional primary agency staff plus support agency staff will be required to conduct all ESF and general staff activities.
- Even with additional staff augmentation, the SEOC can only maintain 24 hour operations with existing staff for several weeks. Additional augmentation will be required to operate the SEOC/JFO for the extended period necessary.
- An ESF may also manage certain operational activities linking federal to local response functions. This is a change that may be necessary to manage the scale of activities. Such an operation should be pre-coordinated in a *catastrophic contingency option*.
- The SEOC will interact with the RTF on the policy aspect of certain operational matters in a much more structured manner.
- The SEOC, which normally reacts to requests of jurisdictions, will be required in early phases to estimate probable requirements, to deliver resources based on planning assumptions absent a direct request and to participate in prioritizing resource delivery.



Photo Alexander Tidd, USN
<http://commons.wikimedia.org/wiki/>

“There remains years, if not decades, of work to rebuild Tohoku, yet the crisis forced Japan to grapple with questions that affect the entire country. How viable is it to rebuild villages whose populations were aging or whose way of life reflected increasingly inefficient farming or fishing activities?”

Michael Auslin (March 24, 2012). After earthquake, lessons for Japan and the world, *Fox News.com*, website
<http://www.foxnews.com/opinion/2012/03/24/have-japan-and-world-learned-anything-from-earthquake-and-its-aftermath/>
 accessed Aug 14, 2012.

- Catastrophic disasters will elicit a major response from other states and the federal government. The SEOC will maintain ongoing coordination of major response forces, federal or state, by conducting reception and integration activities with responding teams or individuals. Military task forces deployed must maintain a communications channel with state-level military command which will provide the task force clear mission directions and a reporting chain within the local incident command. The Washington State military command will require periodic reports on activities, status of personnel and equipment and regularly reevaluate the requirement for continuing the task force mission

In addition to supporting the SEOC, state agencies must plan to perform the following functions:

- Augmenting their own operations centers to enable extended operations.
- Coordinating with their usual federal partners in conjunction with a JFO.
- Coordinating with the SEOC to produce a gubernatorial proclamation of emergency, including references to appropriate options, protocols, organizations and procedures.
- Participating in exercises testing catastrophic contingencies prior to a catastrophic disaster.
- Providing local responders with technical assistance or augmentation via SEOC-coordinated mutual aid.
- Operating under the provisions of their Continuity of Operations Plan (COOP).
- Incorporate specific catastrophic planning guidance into their internal policies

Each state agency will determine their status under their COOP plan and based on the governor's priorities. A factor to consider will be that the governor may elect to remain in the disaster area but the area may not be capable of supporting the full agency staff. Agencies may then need to relocate most staff out of the disaster area temporarily while a group remains close to the governor.

Implementing many of the above activities (and other specific procedures) will be the object of various *catastrophic contingency options*. The Military Department/EMD will be the principal project lead in developing and coordinating these and consolidating them into a Catastrophic Operations Supplement in the SEOC and for developing and coordinating the associated SEOC processes.

All agencies must, from time to time, exercise specific *catastrophic contingency options*. Maintaining the currency of the various *catastrophic contingency options* will require ongoing effort - a catastrophic incident may not occur for decades. Individuals who will implement the plans and contingencies must be aware of them and be able to implement pre-coordinated guidance at the point of extremity after the incident has occurred.

ATTACHMENT 1 - Notional Catastrophic Contingency Options

List of potential contingency plans currently being evaluated. Notional topics have been developed as a result of risk analysis, research, current State EOC operations observations and local plans such as the Puget Sound Regional Catastrophic Planning Grant.

NOTE: The objectives of these contingency plans are to:

1. Increase speed of action by governmental entities responding to assistance requests & decision-making.
2. Facilitate public/private cooperative action through models, platforms, procedures or tools
3. Coordinate simultaneous semi-independent actions by many public and private entities.
4. Help participants at various levels perform effectively by summarizing likely issues.
5. Establish models, platforms, procedures or tools for catastrophic disaster communications.
6. Develop alternative procedures in case routine procedures fail due to disaster effects.
7. Coordinate a planned basis for many catastrophe-related actions prior to advent of the disaster.

Emergency Contracting - Consider criteria and procedures for implementing temporary extensions to existing Federal (& state) Acquisition Regulations for emergency contracting.

- extended timeframes, pre-designated sites and scopes
- Disaster emergency resource acceptance criteria & tools (photo, date, mission, etc)

Proactive Relief Supplies Plan - Develop general listing of supplies and resources to be pushed to various jurisdictions expected to be isolated with limited communications & including implementation guide.

State Feeding Workgroup - Develop a & exercise a plan to implement a 'one-stop-shopping' group to manage and implement most disaster feeding support requests from local jurisdictions - including private orgs & NGOs.

State Sheltering Workgroup - Develop & exercise a plan to implement a 'one-stop-shopping' group to manage and implement most disaster sheltering support requests from local jurisdictions - including private orgs & NGOs.

Accessing students at post-secondary schools as emergency workers - Develop and exercise procedures to accept, classify, register and assign volunteers from WA Universities & Colleges (w/local jurisdiction partners) including community and technical colleges. Facilities considered separately.

- CERT or Disaster Volunteer program @ Colleges
- Special authorization for emergency manager registrations

Schools - K-12 & School Districts - Establish mechanism or procedures for local school districts to adopt in case they must provide non-school disaster support. Procedure to support return to education operations and including proposals for paying teachers as emergency workers for service in their schools for non-teaching duties. Include contract issues per OSPI

Community Road Repair Partnerships - Review or develop operational plans to collect local private construction equipment and assign it according to local, regional and state priorities for roadway and bridge restoration and debris removal. Issues related to emergency contracting, district or Regional

coordination authority at WSDOT, local and strategic communication plan and integrate with fuel plans and other response/restoration projects - e.g. utilities etc.

Evacuation and supporting Voluntary Relocations - Develop resource detail, operational criteria and agency roles for large-scale evacuations including sustenance, sanitation, transfer points, strategic messaging, coordination with commercial carriers, etc.

Emergency Reporting over HF Networks - Develop, promulgate and exercise a simple situational awareness reporting template for HF radio operators for situations in which that is the only operational method for inter-jurisdictional communications.

State Volunteer Management - Develop criteria (triggers) and procedures for implementing a state-level volunteer management facility serving as a 'gateway' entity for volunteers from outside the disaster area including ground and air travel methods of arrival and spontaneous volunteers.

State Donations Management - Develop criteria (triggers) and procedures for implementing a state-level donations management facility serving as a 'gateway' entity for donations from outside the disaster area and including strategic communications (incl public report & thanks) & partner organizations.

Inter-jurisdictional and operational coordination- develop mitigation recommendations, implementation guidelines, suggested triggering events or conditions to facilitate coordination of complimentary operations from state to including operational integration and/or coordination between the State EOC and local jurisdictions.

Financing Extended Emergency Response - develop guidelines, suggested triggering events or conditions and list various options used by others to support extraordinary response costs.

Governor's Disaster Playbook - Scenario-based document with multiple disaster scenarios summarized in a consistent format providing guidelines for executives & their staff helping to prioritize actions, information collection and message development.

EMD Director's Coordination Guide - Scenario-based document with multiple disaster scenarios detailed in a consistent format providing guidelines for EMD executives including the EOC Manager & Alert & Warning staff helping to prioritize actions, information collection and message development. Augments or extends any existing manual and integrates with Gov. Disaster Playbook.

Fuels prioritization and emergency distribution - A summary of fuels issues in a major/catastrophic disaster including likely residual sources, listing of potential demand sites and how these are related to ESFs, proposed methods for apportioning fuels and suggested prioritization w/ rationale and a summary or 'restarting' the supply chain. For implementation at local jurisdictions, possibly based on governor's proclamation.

Fatality Management - a summary of this issue including how it impacts local jurisdiction resources, what elected officials can expect, federal support and state planning criteria. Avoid duplicating existing documentation - emphasize disaster response issues. (partner w/ DOH)

Multi-Agency Coordination Center (JFO + EOC) - suggested implementation guide for integrated operation of JFO and EOC beginning at the earliest possible time.

Debris Management - Consider state and local issues regarding current regional templates for this activity including staging for future use as fill material, reserving elements for memorials, issues regarding human remains.

Intermediate Housing - Proposed state/local coordination designed to facilitate shelter needs and efficiently implement interim housing.

Protection of Cultural Resources - Identifies types of sites, resources and issues regarding protection and restoration of cultural resources following a widespread and/or catastrophic disaster.

Augmenting local personnel - checklist and guide for integrating outside personnel into emergency management or other coordination activities (assumes ICS transitions of local responders are already developed).

General Regulatory Waiver Considerations - Collection of issues or items by topic area that should be considered for waiver requests by primary state agencies and/or included in the proclamation by reference.

- related to triggers in contingency options

Draft Catastrophic Emergency Proclamation - Draft language for several types of catastrophic disaster scenarios referencing contingency options as guidelines for implementing Gov. Emergency Powers to request specific waivers, authorize extraordinary operations & establish specific actions (RTF, Dual - Status Commander, etc).

Coordinating multiple missions on limited aircraft - Develop operational guides for providers of rotary wing aircraft to include 'push-supplies' or augmenting personnel and other unusual taskings (vice single-tasking as a survey flight or similar) including mission preplanning information in EOC

Case Management - Restoring case management process in chaotic environments (partner w/DSHS & DOH)

Coordinating extended airspace management - Operational guides for emergency management regarding disaster airspace management processes for extended geographical areas and durations