2009 Redmond Recovery Plan

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City of Redmond
WASHINGTON

Department of Urban Design & Planning
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Sources included on the Reference page were all used to compile the information, recommendation, and structure of this Plan. They are not cited specifically, as several or all sources provided the same or similar information; nearly every line would have multiple sources cited.

When specific text or charts were used, footnotes and page numbers are included.

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Executive Summary

Recovery Planning is a part of Emergency Management Planning. In the event of a hazard, the City of Redmond will be working to recover to a state that is superior to pre-disaster conditions. This plan provides guidance for the City to be able to perform at optimal functionality in the chaotic post-disaster period. The ultimate goal of recovery is to restore all necessary City functions, while making Redmond more resilient to future hazards events.

This Recovery Plan considers three potential hazards events that could impact the City of Redmond. Various levels of recovery will be necessary depending on the type of disaster and the extent of the damage. The scenarios lay out a minor event, a major event and a catastrophic event. This Plan also evaluates which secondary hazards are likely to accompany a primary hazard and how that may impact the potential for recovery.

History and science guide our understanding of which hazards pose a threat to the City of Redmond; however, the threat, timing and precise conditions are unknown variables. Since it is impossible to predict the specific impacts of such an event, it is futile to make precise plans for the multitude of potential events. This Plan suggests guidelines for action and flexible decision making that can be coordinated with state, regional and federal assistance.

In the event of a hazard, the City must be prepared to designate a Recovery Manager, delegate tasks and potentially lead efforts from an alternative location. This Plan explains the likely conditions and how authority should be delegated. Due to the uncertainty with hazards and the potential for City employees to be unavailable, this plan sets parameters by which the recovery can be flexible to adapt to the specifics of the situation.

There are two types of recovery – short-term restoration of services and long-term enhancement of the City services and economic potential. This plan suggests how the City can consider the long-term impacts of short-term solutions.

By considering the impacts of hazards prior to an event and preparing how the City will respond to such an event, Redmond will be able to implement an effective, inclusive recovery plan that will make the City more resilient to future hazards events. Through pre-disaster planning, Redmond will be able to go beyond merely restoring services to their previous condition and advance the City through implementing long term plans at an accelerated pace.

I. Introduction

Purpose

The purpose of this plan is to prepare for and guide recovery efforts after a disaster, in order to make the most of available resources and avoid costly administrative mistakes that can occur during a difficult and chaotic period. Such planning will relieve pressure on City staff immediately after a hazards event so that they may provide the highest level of service to the citizens of Redmond.

Scope

This plan includes the following:

- The type and scale of disasters that may require recovery
- The authorities guiding these efforts.
- The responsibilities of different departments for disaster recovery.
- How to anticipate possible secondary hazards based on the primary event and the correlating impact on recovery.
- Explanation of the phases and timeline of recovery.
- Operations and management of recovery effort.
- Three hazards scenarios to clarify procedures and considerations for different types of disasters.

This plan does not include:

- Information regarding terrorism, biological weapons or other man-made disasters. These situations are covered in the Redmond Terrorism Plan.
- Sample forms, letters, ordinances or other documents. Several examples are available in the FEMA *Recovery From Disaster: Local Government Role Toolkit*, available in the Emergency Manager's Office.
- Detailed hazard or risk analysis. This is included in the 2009 Redmond Hazard Mitigation Plan (HMP).

Plan Reviews and Updates

The recovery plan shall be updated at least every five years, during the HMP update. Updates shall take into account changes in vulnerabilities, growth, and address emerging issues. It is recommended that it be reviewed yearly to ensure that referenced documents are still available or accurate. Annual review should be coordinated with staff training.

II. Policies

Recovery Activities

- Recovery activities begin simultaneously with many response activities. Initial recovery will include **restoration of vital services**.
- **Data collection** During the primary and secondary estimations of damages, the use of a specific form or coordinating language can jumpstart the reimbursement process for faster, more efficient recovery.
- State or Federal disaster declarations make a variety of **assistance available**, and thus data collected should be organized in a way compatible with these programs. If Federal or State declarations are not sought, other assistance programs make use of the same information.

Catastrophic Disasters

- **Coordination with State and federal agencies:** In the event of a catastrophic disaster, all city staff will be working closely with State, Federal, and possibly private representatives, teams and task forces to aid in response and recovery. Information sharing and full cooperation must be prioritized to avoid miscommunication or lost opportunities.
- **Long-term recovery management:** In the event of a catastrophic event or one that requires long-term recovery planning and management, the Mayor may choose to appoint a Recovery Manager to oversee the process and free the Emergency Manager to concentrate on responding to subsequent events.
- Scenarios and further information regarding Catastrophic Disasters and the Recovery Manager position can be found in Appendices I and IV.

Events Involving Terrorism or Bioterrorism

The Redmond Terrorism Plan is the primary source for information regarding incidents of terrorism or bioterrorism. Considerations related to secondary hazards from terrorist events, if not explicitly outlined in that plan, should borrow from or follow this Recovery plan whenever appropriate.

Assignment of Responsibilities

Responsibilities for emergency management as stated in the CEMP for the response, preparation or mitigation phases may be slightly different than those for recovery. This plan includes the roles recommended only during the recovery process.

III. Situation

Emergency/Disaster Conditions and Hazards

A primary event, such as an earthquake, can trigger a number of secondary hazards such as landslides and fires. The Secondary Hazards Matrix on Page 13 outlines the types of secondary hazards that are very likely, somewhat likely, or unlikely to occur following a primary event. Consider multiple hazard scenarios when reopening areas, rebuilding, or applying for recovery funds.

Appendices II through V outline scenarios for three levels of disasters: minor, major, and catastrophic. For the purposes of this plan, they are defined as follows:

> Minor disaster: the event is localized, there are few deaths or major injuries, and recovery efforts will only affect a specific area and a small segment of the population. Recovery or repairs will be overseen by only one or two departments and will take less than one year.
> Major disaster: the event is widespread or occurs over a large area, or affects multiple segments of the population. There may be several deaths or injuries, or none. Damage is mild to moderate, and major city functions are disrupted for less than a week. Several departments are affected, and recovery or repairs are estimated to take several months to a few years. Disaster declarations may be sought.
> Catastrophic disaster: the event impacts most or all of the city and may be regional in nature. There are likely several injuries and at least some deaths. Damage is moderate to severe in multiple areas. Major city functions are disrupted for more than one week. Recovery or repairs are estimated to take several years. A disaster declaration is sought and granted.

The level and type of disaster will vary the types of recovery considerations and actions taken. The scenarios in the Appendices are intended only to clarify the types of situations that may trigger certain actions recommended in this plan; they are not designed to be predictive in nature or imply the likelihood of a particular situation occurring.

Natural Hazards Identification

The 2009 Redmond Hazards Mitigation Plan (HMP) provides detailed information about the natural hazards that pose a threat to the City of Redmond.

Part 2 of the HMP details the vulnerabilities, risks and capabilities in the City of Redmond.

Part 3 of the HMP includes descriptions of the types of natural hazards.

Planning Assumptions

In order to prepare for recovery activities, this plan makes several assumptions. These assumptions provide a forecast of the likely conditions after an event.

- An emergency or disaster has occurred. Actions to implement this plan will begin before emergency conditions subside.[1]
- The emergency or disaster has caused significant damage so as to require recovery activities. These damages may have caused the loss of life support systems and the loss of regional economic, physical, and social infrastructures.[2]
- Not all members of the Mitigation Implementation Committee (MIC), response

1,2 Text taken directly from Section III D of the 1999 Washington State Recovery Plan Coordinating Draft, Washington State Military Department Emergency Management Division, p7.

personnel, City staff or private contractors may be available during or after the event. They, their families, or their friends may be directly affected by the event and in need of aid.

- Unincorporated areas or other cities nearby may be competing for the same resources needed by affected Redmond citizens.
- Other cities in King County or Washington State may be affected by the disaster and not able to provide assistance or access to their facilities.

IV. Concept of Operations

Recovery Manager

When the recovery process is expected to involve several projects or take more than a few months, the Mayor shall appoint a Recovery manager. The Recovery Manager oversees the recovery process. His/her principle mission is to select appropriate projects that will benefit the community and to ensure those projects are completed in a timely and efficient manner. Additional tasks may include selecting projects to complete, or coordinating projects between departments and external agencies to avoid conflicts, overlap, or interference.

Information about when and how to appoint a Recovery Manager and additional duties are detailed in Appendix I.

Direction and Control

Recovery will be an inter-agency activity. Redmond has established the Mitigation Implementation Committee (MIC), which is comprised of members from several departments. The MIC reviews HMP process and is familiar with the stakeholders, hazards and potential damage in the City of Redmond. The MIC will continue to meet, review items regarding preparation and mitigation, and organize training drills. In the event of a disaster, the MIC will function as the steering committee for recovery operations. Depending on the level of damage and projected extent of recovery, the MIC may require additional assistance to direct the efforts. To accommodate the long-term recovery needs, the MIC will either advise the Mayor's Office on, or select, and train the new staff. Additional staff or consultants may be required for extensive recovery.

The MIC, or any Recovery Team or Task Force shall consist of members from the following departments:

Required MIC representatives
Department of Parks
Police Department
Planning and Development Services
Public Works
Information Services/Finance
Geographic Information Systems (GIS)
Fire Department
Emergency Management
Chief Information Officer (see Appendix I)
Additional members may include
Consultants as necessary
Volunteer or aid groups
Federal and State representatives
Members of organized citizen or business groups

Recovery and Support Structure
Federally declared disasters make several types of recovery funds available, and should be utilized to their full extent. Post-disaster data collection should be compatible with the requirements for federal assistance. Additionally, the City shall assist residents with individual claims and how to properly document all activities that are covered under public assistance. Details of the types of assistance available and the agency in charge are found in Appendix C of *Planning for Post-Disaster Recovery and Reconstruction*.

V. Responsibilities

The following list of responsibilities are intended to clarify the roles during the recovery process. The MIC may decide that roles should be reassigned based on the situation, and that should be followed as long as all tasks are fully staffed.

Some of the responsibilities may not be needed, depending on the type, scale and location of the event; however this must be agreed upon by the MIC and Recovery Manager, rather than by the department to which it has been assigned.

The check marks on the left indicate whether the activity is conducted before a hazards event, during short-term or long-term recovery, or a combination of the three.

√ **Pre-event** √ **Short-term Recovery** √ **Long-term Recovery**

Mayor's Office

- √ √ **Communicate with all departments** immediately during/after a disaster and gather preliminary damage reports to determine whether or not a disaster declaration should be made and further assistance requested from the State and/or Federal government
- √ √ √ **Appoint a Chief Information Officer** to organize communication and set up an Information Center, if appropriate
- √ √ **Appoint a Recovery Manager** if long-term recovery is required

Finance and Information Services

- √ √ Provide staffing support or assign staff to research and apply for **recovery funds** and programs for public and individual assistance
- √ √ √ **Determine the amount of funds available** for low or no-interest loans to community members and businesses after a disaster, and administer the program
- √ √ √ **Train volunteers** to perform the services above, if available
- √ √ **Provide staff**, resources and support to information fairs, hotlines, or neighborhood programs to educate citizens about their financial options following a disaster, and in filling out the forms if needed.
- √ √ √ **Provide staff** for the Information Center and offer CIO candidates.
- √ √ √ **Ensure forms and language** used for damage estimation, payroll tracking, and other expenditures during a disaster are compatible with State and Federal compensation programs.

Fire Department

- √ **Train first responders** in damage assessment and proper measurement systems and terminology use on forms to assist in disaster declaration requirements and/or recovery fund applications
- √ **Provide feedback** to the MIC during planning regarding safety issues (e.g. road maneuverability, drought-resistant vegetation)

Emergency Management

- √ √ Manage **immediate response** actions, e.g. evacuation or identifying shelters
- √ √ **Coordinate** with relief agencies (Red Cross, faith organizations)

- Provide documents, direction, and contacts to all other departments during the recovery process
- Work with the building manager **to establish reconstruction priorities**
- Offer **general information** to recovery plan drafters regarding evacuation needs and other applicable concerns
- Provide **write-ups of disaster response and lessons learned** to inform the recovery plan

Planning and Community Development

- Assist with the **identification** of appropriate sites for **redundant operations** centers
- Identify a number of possible **shelter and temporary housing locations**
- Create **an Old Town Recovery Plan**
- Provide staff and support to the historic preservation team to oversee and implement the Old Town Recovery Plan
- **Work with nearby municipalities** to coordinate temporary housing in the event of a large-scale or regional event
- **Assist the Information Center** and the FIS with informing and providing support to the public regarding financial assistance options
- Assist with damage assessment, particularly **mapping of data** to prepare for the planning process
- Work with emergency management and damage assessment teams to **identify construction moratorium areas**
- Enact a **moratorium on building permits** during the recovery phase to allow for the planning process
- Be the lead agency for the post-disaster **public revisioning process**
- Assist with determining **traffic flow** patterns and needs to prioritize road closures and repairs
- Review **building permit and repair applications** for consistency with the Comprehensive Plan, the Hazard Mitigation Plan, and any Recovery Plans that are created after the event
- **Reevaluate and update the Recovery Plan** with new information at least every five years, preferably alongside the Hazard Mitigation Plan updates, or if deemed necessary following a major change or event

Public Works

- Train selected Public Works employees in **damage assessment** and be prepared to activate those employees in case of an event

- **Identify private contractors** to assist in damage assessment or emergency repair and recommend they be given pre-existing contracts to be activated immediately following an event
- Create a **training program** for first responders, volunteers or city staff in **damage assessment**
- Assist with the creation of, and implement, **debris removal plans**
- Be the lead agency in any **toxic cleanup activities**
- Support replanning activities with data and feedback on **infrastructure needs and transportation repair**
- Support, **provide feedback** about, and implement transportation repairs and restoration

Geographic Information Systems

- **Update** GIS database in a manner that is compatible with HAZUS.
- Create efficient **data collection procedures** that can be implemented to assess damage.
- **Prepare maps** and spatial analysis of hazards impact
- Give feedback to FEMA to provide improved information for the next event

Parks and Recreation

- **Maintain infrastructure** in parks in case of the need for mass shelters (particularly running water, electricity and restrooms)
- Work with Planning Department to **identify shelter and distribution center** locations
- **Provide staff and supplies** to emergency shelters on park land

Human Resources

- **Offer classes** in working with and training volunteers to all departments
- **Support volunteer training** by departments by providing supplies, meeting areas, and staff if necessary
- Organize and manage **volunteer center** to identify and assign the skill sets of volunteers and manage paperwork
- **Support Financial Services** with tracking overtime and other emergency expenses for future reimbursement

Police

- **First responders** immediately after an event (search and rescue, medical care, emergency transport)

- Implement any **curfews** declared after an event
- **Support damage assessment** by informing crews of areas or infrastructure that requires investigation
- **Provide information to citizens** in the field about recovery support options (i.e. location and contact information for shelters and financial assistance)
- **Provide staff support to emergency management**, transit and public works officials to prevent re-entry into dangerous areas or during reconstruction
- **Provide feedback** to recovery planners about response needs or safety issues specific to a community or area

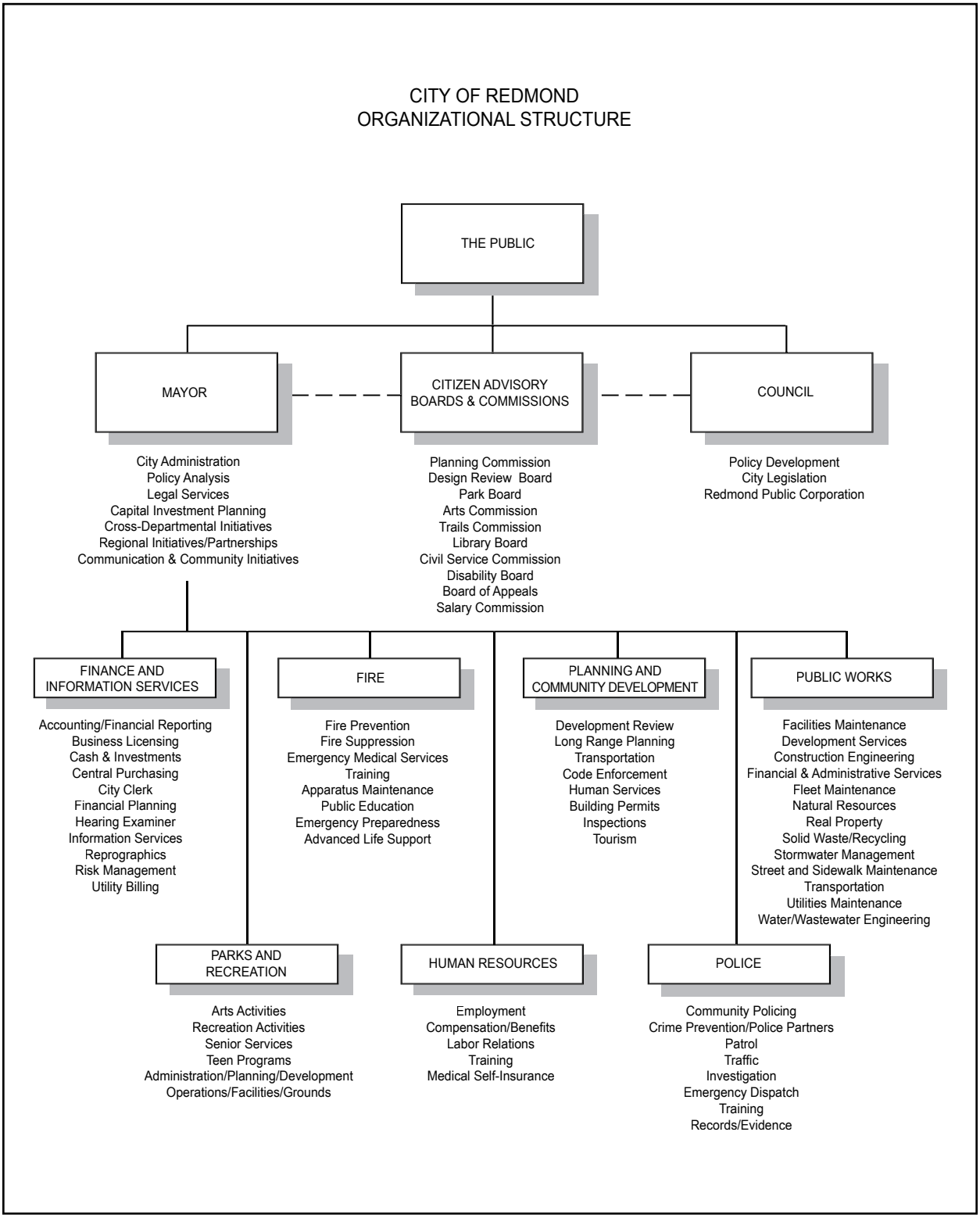
Responsibility matrix[3]

Function	Mayor	FIS	Fire	PCD	PW	P&R	HR	Police
Response/Early Recovery								
Evacuation			x					x
Urban Search and Rescue			x					x
Emergency Shelter Provisions			x	x		x		
Mass Care (food, water, medicine)	x		x	x				x
Organization and Authority								
Empower Recovery Task Force	x							
Designate Lead Agency	x							
Operations Policy	x							
Set Up Disaster Accounting Systems	x	x					x	
Coordinate With Emergency Manager	x		x	x				
Public Participation and Hearings				x				
Rehabilitative								
Temporary Housing				x	x			
Refuse Disposal					x			
Damage Assessment	x			x	x			
Restoration of Utility Services					x			
Establish Reconstruction Priorities	x		x	x				x
Reoccupancy Permits			x	x				x
Emergency Demolition	x			x				
Emergency Permitting	x							
Loan Processing		x		x				
Toxic Cleanup					x			
Land Use								
Identify Sites for Emergency Operations				x	x			
Identify New Lessons			x	x	x			
Compliance With Regulations From Lessons			x	x				
Replanning of Stricken Areas			x	x	x	x		x
Reexamine Street Patterns for Access	x		x	x	x			
Feasibility of Emergency Evacuation			x	x	x			x
Historic Preservation				x				
Implement Area Building Moratoria	x			x				
Reevaluation and Update of Plan	x		x	x				
Regional Coordination								
Coordination With Relief Agencies			x					
Temporary Housing				x				
Financial Assistance Channels	x	x		x				
Transportation Repairs/Restoration			x		x			x
Emergency Legislation	x							
Media Contact	x	x						
Mutual Aid Agreements	x		x		x			x

FIS = Finance and Information Services
PCD = Planning and Community Development
PW = Public Works
P&R = Parks and Rec
HR = Human Resources

3 Adapted from *Planning for Post-Disaster Recovery and Reconstruction*, American Planning Association, 1998, pp. 91-92.

City of Redmond Organizational Structure chart[4]



4 Chart from City of Redmond 2008-2009 Budget, http://www.redmond.gov/insidecityhall/finance/budget/0708AdoptedPdfs/05-CORorgchart.pdf

Secondary Hazards Matrix[5]

Secondary Hazards Matrix

Legend

Very Likely
Possible
Unlikely

POSSIBLE CORROLLARY IMPACTS:	A. Natural Hazards								B. Operational Hazards								C. Technological Hazards								D. Human Imposed Causes			
	PRIMARY HAZARDS																											
	Earthquake	Flood	Landslide	Severe Storm	Drought	Volcano (Ash/Regional)	Wildfire		Domestic Water Systems	Power Outage	Communication System	HVAC	Trouble/Fire Alarm	Medical Emergency			Hazardous Material Spills/Releases	Airplane Crash	Energy Emergency	Urban Fire	Explosion				Terrorism	On-Site/Off-Site Disturbance	Sabotage	Strikes/Fuel Shortage
Explosion																												
Flood/Urban Flood																												
Landslide																												
Mud/Rock Flow: Ash																												
Nuclear Event																												
Wildfire																												
Seiche																												
Domestic Water																												
Power Outage																												
Communication System																												
HVAC																												
Trouble/Fire Alarm																												
Medical Emergency/Epidemic																												
Spills/Releases																												
Infrastructure Failure																												
Energy Emergency																												
Urban Fire																												
Toxic Gas/Acid Rain																												
Riots/On-Site/Off-Site Disturbance																												
Sabotage																												
Strikes/Fuel Shortage																												
Building Shut-Down																												

5 Adapted from the Secondary Hazard Matrix in the *1999 Washington State Recovery Plan Coordinating Draft*, Washington State Military Department Emergency Management Division,

APPENDIX I – Policies and Procedures

Recovery Manager
The Emergency Manager will likely be focused on response and immediate concerns of safety following an incident and may have neither staff nor time available to oversee the long-term recovery process. Additional hazards events or emergency situations may arise during the recovery period that will require their full attention. For these reasons it is recommended that if long-term recovery management is required, a Recovery Manager position should be created and a candidate appointed by the Mayor or his Office.

The Recovery Manager could be promoted from within or hired externally. It is possible that current staff may already be overwhelmed and thus an external hire may be the only option. A Recovery Manager should have a background in emergency management, disaster response, or a related field. In addition, the Manager will be working with representatives from several departments as well as the public during the re-visioning process. He/she will be working closely with the Mayor's Office and may at times be the figurehead for the entire recovery process.

Consistent management over the recovery period is important to avoid project stalls and mismanagement. The candidate should be willing and available to manage the process for several years.

The decision to hire a Recovery Manager is at the Mayor's discretion; however, the Mayor should strongly consider the advice of the MIC if that committee believes that a Manager is needed. Attention should also be paid to a recommendation from the MIC if they have a specific candidate; if several candidates are found they should be consulted prior to selection for advice or a recommendation for selection.

Information Collection and Dispersal
Since regular communication lines may be damaged by the hazard and regular services may be interrupted, it is critical that the City is able to gather and distribute information in an accurate and efficient manner. The City shall designate a Chief Information Officer (CIO) and establish an Information Center to accomplish this goal.

Chief Information Officer (CIO) - The appropriate appointee will have extensive background in public communication and media interaction.

Responsibilities Include:
- Act as primary voice for the City regarding the recovery process
- Verify and approve information prior to public distribution
- Manage or hire a manager to run the Information Center
- Attend Recovery Task Force meetings and coordinate with affected agency representatives in order to create consistent and correct information dispersal

Information Center will be the primary location for data collection and dispersal. The Info Center will ensure that data is accumulated, verified, and redistributed in a concise, clear and efficient manner.

- Gather public comments about conditions or additional hazards and distribute that information to the relevant agencies
- Maintain and update public information outlets, including, but not limited to:
  - General telephone hotlines
  - Radio broadcasts
  - Mailers
  - Web sites
  - Emergency text message notifications
  - Public bulletin boards
  - Press releases
  - Public notices
  - Comment forms
- Maintain and update contact information for:
  - Relevant agencies in all levels of government
  - Social services, aid workers, and volunteer organizations
  - Approved private contractors
  - Translators or translation services, including those for the hearing impaired
- **Determine** what information is ready for public release and when, under supervision of the CIO.
- Utilize all available forms of communication to maximize the spread of information.
- Maintain a database of pre-translated phrases to be used in case of emergency, some of which should be printed on signs and copies kept available in EOCs

Public Process

Participation in the planning process after a disaster is essential to empower the public, retain investment in the community and avoid future conflicts. Networks and contacts can also be made during the process that enhance the resiliency and support structure of individuals. The level of planning and public process necessary will vary depending on the extent of the damage. Public participation may be more appropriate on a neighborhood level for a minor event, while citywide planning would be applicable to a catastrophic event.

The public should be involved in all stages of the planning/revisioning process. However, the public should be aware of budget, time, or physical constraints on the project. Once initial ideas have been brainstormed, the City should review the ideas and ask for public feedback regarding the plausible options.

- For instance, transportation engineers should select a variety of possible sites that would fit within the larger network and have the right physical qualities before presenting them to the public, and then let the public decide on the

preference of sites.
- If for some reason the public's preferred solutions are later found to be impossible to act upon, this decision should be explained clearly and communicated publicly, especially to the participants who voted.

In the chaotic time following a hazard event, marginalized groups may face additional stresses that prohibit public process participation. In order to achieve maximum recovery, the City shall seek broad public input. The City should accommodate the needs of the citizens while organizing meetings and gathering public feedback. Limitations of certain community groups should be recognized and accommodated. Meetings should be held at various locations and times. Consider collecting information about public opinion at natural gathering places, such as assistance lines. Publish bus routes and offer alternative methods for participation that do not require in person participation.

Public participation includes both collecting and dispersing information to the citizens. Collect contact information from participants and offer a website and/or physical location for citizens to keep updated on the progress of the plan and the final decisions that were made. A contact number for questions about the process may also be instituted and assigned to a single staff member who can collect information.

Support Structure
The Responsibility Matrix (above) explains which agency should take lead on an issue, or where to get further support or information within the City. If there are unmet needs or a need for change, the MIC will allocate new responsibilities. An alternative structure for communication should be created prior to an event. Since regular avenues of communication may be limited due to exacerbated responsibilities or physical communication barriers, employees should have information about where to direct requests. A contact list should be distributed to all agencies indicating where to direct requests for information or support. The contact list must be updated annually, during emergency management drills. The list should be maintained by the MIC or the Information Center.

Training, exercises, drills
Training, exercises, and drills regarding recovery should be part of the regular Emergency Management drills. This will ensure that staff will be able to perform emergency duties and train other staff or volunteers to take the roles in the aftermath of an event. The MIC should cover the following topics during the training:

- Scenario based drills
- Information dispersal
- Damage assessment
- Building or infrastructure inspection
- Federal form filing
- First response

Classes should be offered to City employees, contractors and volunteers. Drills should be conducted on an annual basis. Through these drills, sources of unidentified capabilities and vulnerabilities should be identified and addressed.

Redundancy and preparedness

In the case of a major hazards event, certain portions of the City may not be able to function at an adequate level. An earthquake or flood may isolate the hill neighborhoods from the valley neighborhoods. Shaking during an earthquake may leave the downtown area, the current location for response and recovery management, dangerous. Response and recovery supplies should be available in multiple locations to ensure that supplies can be delivered.

Response and recovery supplies, such as radios, spare batteries, signage, forms, contact information, and any other items identified by first responders, this plan, or a MIC team member, should be kept in at least two, preferably three or more backup locations.

- Storage locations should coincide with the location of Emergency Operations Centers or other First Response areas, but if sufficient space is not available, a nearby storage space could be leased from a private entity.
- Given the hazards assessment in the HMP, backup supply areas should be not all be located in areas susceptible to the same hazard, or in areas that may be at risk from secondary hazards (see Secondary Hazards Matrix, above).
- Several copies of any forms, signs, manuals, or other papers should be on hand in case of power outage or damage to copiers or computers.
- Other avenues of communicating to the public - radio broadcast equipment, flip charts, or bulletin boards with plastic covers, should also be stored here in case of a catastrophic event or communication network breakdown.

APPENDIX II – Minor Disaster (HMP Scenario 3)

Scenario 3: Landslide affecting homes

At 10 p.m. on November 5th, after several weeks of rain, a section of hillside in the Education Hill area gave way. Three homes slid fifty feet down the hillside, depositing debris in the backyards of several other homes, which were not damaged directly but lost landscaping and auxiliary structures (e.g. storage sheds). The residents and the City are cleaning up the large amounts of debris. Five people were injured, but there were no life-threatening injuries. Although neighboring homes are currently stable, monitoring will continue as the section that gave way continues to occasionally crumble. The road above the hill has been closed due to instability. The debris blocked a culvert at the bottom of the hill and caused two feet of flooding on sections of SR-202, Redmond-Woodinville Road. The road was closed for thirty-six hours before crews were able to restore normal traffic flow.

Recovery Activities for this scenario

- The lead agency (likely Emergency Management) will assign responders to verify the safety of the area and nearby homes.
- Localized evacuation of nearby homes will be immediate and hotel vouchers can be offered to affected families.
- Police will assist in securing the area and managing temporary traffic changes. The Chief Information Officer will provide police with pre-printed safety signage that includes multiple language translation.
- Debris removal contractors will be activated as per their pre-assigned contracts to help clear the debris from the culvert.
- Planners and emergency management staff, along with input from building inspectors, construction engineers, geologists, ecologists, and any other available and applicable experts, will develop a temporary building moratorium for the area to allow for studies of the safety of the hillside.
- Individual financial assistance, referrals, and counseling options will be offered to the affected families by the Planning and Community Development, with support from Finance and Information Services.
- A localized transportation recovery plan to determine the future of the destroyed portion of road will be drafted, heavily referencing the Neighborhood Plan and Comprehensive Plan. There may be a small community meeting for neighbors in the immediate area to ensure that solutions will not create or exacerbate problems, and discover existing issues that could be solved during the process.
- Federal or state mitigation and recovery fund programs should be utilized to minimize costs to the city.

Threshold for additional considerations

- If other long-standing issues pre-existed the landslide, such as traffic gridlock, lack of open space, or other concerns, a recovery planning process for the immediate area may be in order. A program to buy out homes in danger of sliding and secure the hillside could be federally funded, and the purchased land then used for a hillside park.

APPENDIX III – Major Disaster (HMP Scenario 2)

Scenario 2: Winter storm with power outages

Snow began falling heavily at 1 a.m. on January 7th and continued in periodic showers for 8 days, depositing a total of 2 feet of precipitation. When the snow stopped on January 15th, the accumulation on uncleared roads averaged 10 inches, with drifts up to 3 feet. Sidewalks were invisible under the snow and there were several instances of pedestrian and vehicular paths crossing, resulting in 36 minor accidents and 5 major accidents with 3 traffic-related fatalities. The city's power grid had several temporary shutdowns and repairs, but was consistently off from midnight on January 13th to 3 p.m. on January 15th.

High volumes of snowfall caused ceiling leakage and some buckling on 36 commercial and office buildings with flat roofs, causing approximately $1 million in damaged equipment and repair costs. Storm drains overflowed in several areas from debris, snowpack, and frozen water, and an ice jam on the Sammamish River flooded parts of West Lake Sammamish Parkway NE at the 520 off ramps, causing major traffic delays for 8 hours on the 14th. Many citizens were unable to drive and large numbers of businesses were closed for several days. Roads that were cleared were congested with triple the usual numbers of traffic due to impassible roads elsewhere. A family of four died of carbon monoxide poisoning after bringing a generator into their home, and 10 house fires from candles and woodstoves caused above the usual amount of damage, due to delayed response times caused by poor road conditions. Businesses in the food industry, particularly grocery stores, discarded over 6 tons of rotting perishables. The loss of electricity compromised the most common of communication systems, making standard lines of communication unavailable, including RCTV and the internet. Several businesses sought additional loans to cover company-wide vacation time and loss of revenue and inventory; three small businesses declared bankruptcy.

Recovery Activities for this Scenario

- Emergency Management activated backup plows
  - Prior to the event, a network of individuals and private contractors with the ability to plow roads was alerted that they may be activated in the next few days. Each had pre-existing signed contracts with the city to be reimbursed following the event, a call-in number to offer availability, and a landline to be contacted. Maps with assigned areas had already been distributed. Some individuals were reimbursed with the cost of the plow, or signed up for a program where part or all of the cost was deducted out of their plow pay.
  - These individuals were contacted based on location, availability and areas in need of plowing and were activated and assigned an area to plow.
  - After each round of plowing, the contractor reported in that the area had been cleared. This information was updated on all communication platforms (news reports, web, phone, radio).
    - The individuals then had forms that documented the number of times they plowed the area and the time spent.

    - FIS collected the contractor/individual time forms and added those totals into the total disaster costs. Contractors were paid within 3 weeks from emergency funds. Additional funding was provided by the State OEM and the city was reimbursed.
- Warming shelter locations and open businesses with backup generators were advertised through community groups, TV, radio announcements, the city's information hotline and the emergency radio channel. Warnings about carbon monoxide poisoning and fire safety information were included in several languages.
- Short-term, zero interest loans were offered to businesses to cover employee vacation pay, loss of business and loss of supplies. Individual assistance loans to repair damage was also offered to any homes with leakage or those affected by backup flooding. Most loans were repaid within 6 months with insurance checks.
- Businesses that had entered into the Redmond Business Partnership Initiative (recommended in the HMP, Action Item 5-2) were able to share storage, reducing the amount of rotted food. Some side-by-side businesses were able to stay open by sharing generator power or condensing their operations into a single storefront.

Threshold for additional considerations

Lessons from the disaster were utilized in the next round of community and comprehensive planning, including areas where gridlock occurred and where icing isolated groups of homes. Alternate traffic routes and additional walking trail locations were identified during the public process.

APPENDIX IV – Catastrophic Event (HMP Scenario 1)

Scenario: Earthquake

At 1:38pm on March 18th a 6.7 magnitude earthquake occurs along the Seattle fault. The epicenter is located within two miles directly south of Redmond. The massive shaking caused over $980 million of damage and 57 casualties. The magnitude of the earthquake was similar to the 2001 Nisqually earthquake, but the violent ground shaking caused much more damage. The earthquake caused damage to 5,547 of the City's 17,000 buildings.

Transportation systems within the City of Redmond also sustained damage. Two bridges were damaged, but one regained functionality after the day of the event. The total cost of damage to the transportation system was over $30.2 million. Regional transportation failures, such as the collapse of the SR 520 bridge, limited Redmond's access to regional facilities that were already overwhelmed.

Lifeline utilities were also damaged. On the day of the earthquake, 231 leaks and 58 breaks in the water lines left over 8000 households without access to potable water. Service was promptly restored within 72 hours. 11,501 households lost electricity. In addition to the immediate damage of the earthquake, fires broke out across the City and caused an additional $13 million of damages.

The biggest problem has been the lack of a local medical facility and the fact that the regional hospitals were overwhelmed.

Recovery Activities for this Scenario

- Working with State and Federal agencies
  - In a Catastrophic Scenario, large portions of Washington State will likely be affected, and resources will be concentrated towards the larger population centers, if they are affected.
  - Federal Assistance in terms of National Guard deployment, FEMA employees, and other personnel will likely be assigned to the area.
  - Identifying the key contacts in each department for visiting personnel, meeting locations, resources needed and scheduling meetings will begin early in the process; Information Center staff should take point in managing these needs.
- Handling media, volunteers, donations and visitors
  - The CIO should immediately notify all department heads of information restrictions and to redirect all media inquiries to the CIO office or Information Center. Department heads shall pass this information on to all of their staff, along with contact information for the CIO/Information Center.
  - The CIO/Information Center shall immediately identify an area to serve as a media center, including areas for reporters to gather, rest, get credentials/ID and receive updates.
  - The Information Center should prepare to activate its volunteer center,

identify the required paperwork, and assign staff to intake, assign, and train volunteers as needed.
    - If the Information Center is understaffed or otherwise overwhelmed, they should begin by training assistance staff.
    - If volunteers are minimal or delayed, Information Center staff should notify other department heads or MIC members of their availability until needed, or default back to their home departments.
- The FIS should create a non-profit emergency donations account and appropriate paperwork prior to an event so that donations can be immediately routed and accepted correctly for tax-exempt status, tracking, and oversight purposes.
    - The Information Center should have this information on-hand to distribute.

Public Process

- For a Catastrophic Event, the public process component is necessary to provide an opportunity for all stakeholders to contribute to the recovery planning. The damage will be widespread; consequently, a comprehensive revisioning process will be critical to realize effective solutions. Additionally, revisioning can assist to reunite a community that is stressed by a disaster.
- Revisioning is similar to comprehensive planning in that it will be addressing interrelated concerns that impact large portions of the City infrastructure and character. However, the urgency of recovery requires that the process be compressed. For instance, Greensburg, KS completed its revisioning process and published a plan approximately 13 weeks after a tornado damaged or destroyed 90% of the city.
- Public participation shall be encouraged throughout the entire revisioning process. Input shall be gathered immediately after the earthquake and public comment/approval shall be sought through all stages of the process.
- Due to the personal hardships of the event, marginalized populations have the potential to become even less involved in the revisioning process than during a typical planning process. However, the most vulnerable and marginalized populations are crucial to planning a future where Redmond is more resilient to hazards. In order to obtain input from the public, the City shall use non-traditional means to gather data. The City should go to the people gather input. If large populations are congregating at distribution centers, the City should organize information collection through meetings, charettes or personal interviews with citizens. Consider alternative locations, times, formats, and languages for gathering public opinion.
- Consideration should be made of regional affects of the event when making decisions, such as the collapse of the Evergreen Point Floating Bridge or devastation of nearby cities. For some projects, collaboration with county, State or regional agencies early in the process will save large amounts of time and money and streamline the process. Redmond shall provide space for the public to provide feedback for changes to the regional systems.

Financial Options

- In addition to federal, State, county, city, or volunteer funds, all possible income sources should be considered to ensure that the goals of the Comprehensive or Revisioning plan are adequately realized.
- Community Development Block Grants, Small Business Administration, and Economic Development Administration funds can be applied toward rebuilding communities' economies after disasters. [6]
- Other common planning tools that can be repurposed for long-term recovery include:
  - special taxing or assessment districts
  - Tax Increment Financing (TIF)[7]
  - impact fees
  - differential taxation
  - urban renewal or redevelopment funds
  - public mortgage lending subsidies
  - transfer of development rights
- PCD and FIS staff should work together to review the available options for funds before beginning the public process, so that questions about timelines, limitations, and additional costs to citizens can be more definitively answered.

Recovery Phases

- Short Term Recovery
  - Short term recovery begins immediately after an event begins, at the same time as response.
  - The first priority is to minimize secondary hazards. This includes inspecting damaged infrastructure to determine if it is able to continue functioning safely, and informing all possible users in a timely and effective manner.
    - If a structure is too damaged to function, or an area is declared unsafe, the lead department must identify as quickly as possible what effect the loss of its use will have on residents.
      - It may be possible to restore the lost function with a different, alternative solution, rather than rebuilding what existed previously and failed during the event.
      - These decisions must take into account that temporary solutions often last longer than intended or can become permanent; this can include traffic rerouting or housing.
    - In the long run, it may be more beneficial to delay repair or reconstruction if there is a possibility that extra time dedicated to a planning or design phase can solve problems that existed before the event.
  - All efforts should be made to mitigate future disasters during reconstruction, in accordance with the Hazard Mitigation Plan.
  - Decisions to rebuild or repair should always be considered in light of the visions and goals of the Comprehensive Plan.

6 *Planning for Post-Disaster Recovery and Reconstruction*, American Planning Association, 1998, p. 137.
7 Note that Washington has several financial restrictions and TIF may not be as successful as other states.

- Federal or state assistance funds provided for post-disaster reconstruction can offset future costs to residents and assist economic recovery and should be fully utilized whenever possible.
    - Tracking expenses correctly is a basic requirement for funds and assistance and should be given heavy weight.

- Long Term Recovery
    - Once immediate functions have been restored and health and safety are assured, long term recovery begins.
    - If several structures or large areas are affected, a separate Recovery Plan will likely be required to coordinate efforts and ensure the efficient use of resources.
        - Recovery Plans must always include input from members of the public, particularly those most affected by recovery (e.g. closest to the area, users of the structures, business owners).
        - Different types of public participation and input are covered in more detail in the Appendices, dependent upon the scale or type of disaster.
    - The Recovery Plan, dispersal of repair or reconstruction funds, granting of permits and any other recovery decisions must always be considered in light of the vision and goals outlined in the most recent Redmond Comprehensive Plan.
        - Whenever possible, repair plans should be aimed not at just returning to status quo, but upgrading to the future needs or requirements of the city (e.g. instead of replacing a broken water pipe with the same type, Public Works may place larger pipes to account for expected growth or annexation).
        - Temporary housing facilities should be located close to future growth areas whenever possible, so that local businesses may recovery more quickly by providing services to those located there. Those temporarily housed in one area may choose to stay in that area and should have that option.
    - Pre-approved ordinances (e.g. zoning to allow temporary housing in appropriate areas, ability to enact curfews in the event of a disaster, emergency contracting) written and passed before an event will significantly save time and money when an event occurs. Examples of ordinances and other planning tools are available in *Planning for Post-Disaster Recovery and Reconstruction*, APA 1998, Chapter 5.

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Glossary

CEMP: Comprehensive Emergency Management Plan.

CIO: Chief Information Officer, City of Redmond (recommended new position).

FEMA: Federal Emergency Management Agency.

FIS: Finance and Information Services, a department in the City of Redmond.

HMP: Redmond Hazards Mitigation Plan, 2009 Update.

MIC: Mitigation Implementation Committee. A group of representatives from several departments in Redmond that guided the 2009 Hazard Mitigation Plan Update.

PCD: Planning and Community Development, a department in the City of Redmond.

TIF: Tax Increment Financing. Legalized in Washington in 2001, it is intended to raise funds for redevelopment by increasing property values in the redevelopment area if and when their value rises, as it is expected to do following investment. Note that Washington has several financial restrictions and TIF may not be as successful as other states.

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