



IA 6: Scoggins Dam Failure

THIS PAGE LEFT BLANK INTENTIONALLY

Table of Contents



1 Introduction	1
1.1 Purpose	1
1.2 Scope	1
1.3 Policies and Agreements	1
2 Situation and Assumptions	3
2.1 Situation	3
2.2 Failure Conditions	4
2.3 Assumptions	4
3 Roles and Responsibilities of Tasked Agencies	6
3.1 On-Scene Incident Command/Command Center	6
3.2 Law Enforcement Agencies	6
3.3 Fire Agencies	7
3.4 County Emergency Operations Center	7
3.5 American Medical Response	8
3.6 Clackamas County 9-1-1 Communications	8
3.7 Disaster Management	8
3.8 Fire Defense Board	8
3.9 Cities	9
3.10 Health, Housing and Human Services	9
3.11 Transportation and Development	9
3.12 Utility Providers	9
4 Concept of Operations	10
4.1 General	10
4.2 Alert and Warning	10
4.2.1 Public Alert and Warning	10
4.2.2 Stakeholder Alert and Warning	10
4.2.3 Message Responsibility	11
4.2.4 Notification Methods	11

4.2.5 Alert and Warning Content (if needed beyond initial Everbridge/Public Alerts notification)	11
4.3 Initial Response Actions	12
4.3.1 Establish Command	12
4.4 Evacuation	12
4.4.1 Evacuation Levels	13
4.4.2 Inundation Area	14
4.4.3 Evacuation Response	14
4.4.4 Evacuation Re-Entry	15
4.5 Shelter and Mass Care	16
5 Emergency Coordination	17
5.1 General	17
5.2 Cities	17
5.3 Special Districts	17
5.4 County	17
5.5 Regional	18
5.6 State and Federal Assistance	18
6 Support Annex Development and Maintenance	19
7 Appendices	20
Appendix A IA 6 Resources	21

IA 6 Tasked Agencies

Primary County Agency	Clackamas County Sheriff's Office (CCSO) Lake Oswego Police Department West Linn Police Department Lake Oswego Fire Department (LOFD) Tualatin Valley Fire and Rescue (TVF&R) Clackamas Fire District #1 (CCFD#1) Disaster Management (CCDM) Department of Transportation and Development (DTD)
Supporting County Agencies	Fire Defense Board (FDB) Health Housing and Human Services (H3S) American Medical Response (AMR)
Community Partners	Incorporated Cities: Rivergrove, Lake Oswego, West Linn Utility Providers

THIS PAGE LEFT BLANK INTENTIONALLY

1 Introduction



1.1 Purpose

The purpose of this annex is to establish procedures for warning, evacuation and sheltering of the affected population¹ who would be endangered in the event of the failure of the Scoggins Dam in Washington County, resulting in flooding along the Tualatin River. This annex provides guidance for all stakeholders in the affected area. It also addresses similar emergency response actions which might be required in the event of flooding caused by emergency releases from the Scoggins Dam.

1.2 Scope

The Scoggins Dam at Henry Hagg Lake in Washington County is covered in the Bureau of Reclamation's Emergency Action Plan. Failure of the dam can occur in different manners and impact time for the first wave to reach Clackamas County will be an estimated minimum 47 hours.

1.3 Policies and Agreements

The designated On-Scene Incident Command /Command Center (Leading Fire or Law Agency) or Emergency Operations Center (EOC) Command both have authority to order evacuation for the affected population should the Scoggins Dam fail and create flooding along the Tualatin River.

- Oregon Revised Statutes (ORS) 401.309 gives counties and cities the authority to evacuate persons from a designated emergency area. ORS 401.309 authorizes a county or city to order mandatory evacuation only after an Emergency Declaration has been declared and only when necessary for the public safety
- Clackamas County Code, Emergency Regulations, 6.03.060 authorizes the Board of County Commissioners (BCC) to order and enforce evacuation as an emergency measure.
- H.R. 3858 [109th]: Pets Evacuation and Transportation Standards Act of 2006 requires state and local to include evacuation, transport, and care of household pets and service animals in their disaster or emergency plan.
- 2007 HB 2371 requires operators of care facilities to develop plans and train employees to evacuate clients/residents to a place of safety when conditions of imminent danger require relocation.

¹For the purpose of this annex, the 'affected population' is "Any resident and/or business in need of evacuation that is located within or adjacent to the inundation zone, including anyone who could be at a park or public access point below the impacted dam."

- ORS 411.054 establishes standards for assisted living and residential care facilities to enhance the dignity, independence, individuality, and decision-making ability of the resident in a safe and secure environment.

2 Situation and Assumptions

2.1 Situation

Scoggins Dam and its reservoir, Henry Hagg Lake, are located on Scoggins Creek approximately eight miles south of Forest Grove in Washington County. The dam is a 151-foot-high, zoned earth fill structure that is 2,700 feet long at the crest and contains 4 million cubic yards of material. Normal capacity of Henry Hagg Lake is 53,640 acre-feet, with a water surface elevation of 303.50 feet or “full pool.” However, inundation mapping is based on a total release in excess of 62,000 acre feet.² The actual volume of water behind Scoggins Dam will vary throughout the year with the highest volumes of water being expected from late spring through early summer.

Recent studies of Scoggins Dam indicate it is located on an inactive seismic fault and is in an area that could be affected by a Cascadia Subduction Zone earthquake event. For further information on the earthquake hazard, see the Washington County Hazard Vulnerability Analysis.

Were Scoggins Dam to suffer a catastrophic failure, human lives and property in the flood pathway would be endangered. This danger would be relative to the amount of water stored behind the dam at the time of the failure.

- The U.S. Bureau of Reclamation (BOR) has developed inundation area maps showing the extent of flooding and expected flood wave arrival times following a failure of the dam to help inform planning efforts. Detailed maps can be viewed at Clackamas County Disaster Management (CCDM) and/or in the Clackamas County EOC, if activated.
- The inundation areas are estimates only and actual time and water depths will vary greatly depending on the time of year, the depth of water behind the dam at the time of dam failure, the Tualatin River depth, and debris and other obstructions in the river.
- The inundation area includes unincorporated areas of Washington County and Clackamas County as well as several cities in both counties, most notably Gaston, Forest Grove, Cornelius, Hillsboro, Tigard, Tualatin, Rivergrove, King City, Lake Oswego and West Linn.
- There are approximately 200 addresses located in the inundation area, most along the Tualatin River.
- The BOR constructed and retains ownership of Scoggins Dam. By agreement with the BOR, Tualatin Valley Irrigation District (TVID) assumed responsibility for operation and maintenance of the dam facilities in 1983.

²One acre foot equals 325,851.4 gallons

- TVID monitors and controls the amount of water stored behind the dam according to BOR regulations. These regulations provide safety for those below the dam and maximize water storage capacity for use throughout the year.

2.2 Failure Conditions

The BOR Scoggins EAP defines four unique emergency classifications for dam events. Failure conditions align with the BOR Scoggins EAP Response Levels:

- Alert – An unusual but non-emergency event requiring further analysis.
- Level I – The first, and least serious, of three response levels that TVID will declare after analyzing a potentially threatening event. An event in this category may be perceived as an emergency or may be of general interest to the public, but does not pose a hazard, either at the dam or to downstream populations at risk when observed.
- Level II – The second of three response levels TVID will declare after analyzing a potentially threatening event. Response Level II means that an event has occurred or is likely to occur that will actually threaten the structure and/or areas downstream from the dam if the event continues and/or intensifies and that populations at risk should prepare to leave predetermined inundation areas for higher ground and safe shelter
- Level III – The third, and most serious, response level TVID will declare after analyzing potentially threatening events. Response Level III indicates that life-threatening floodwaters, as a result of high operational releases or dam failure, present imminent danger to the public located downstream from the dam. Declaration of Response Level III should prompt local officials to immediately evacuate populations at risk.

2.3 Assumptions

Certain conditions might develop at the Scoggins Dam that would require the warning and evacuation of the “affected population”—specifically, people located within the dam failure inundation area downstream from the dam.

- Numerous circumstances can impact the ability to provide adequate notification of an emergency or failure.
 - Not all dam failure scenarios allow ample warning, e.g., a Cascadia Subduction Zone earthquake, or a human caused/adversarial attack may cause the dam to fail rapidly, before authorities have time to issue a warning.
 - Proximity to the dam will affect the timeliness of warnings in relation to the timing of impacts. It will take approximately two days until Clackamas County is impacted.
 - If a dam failure is caused by a major earthquake, damage to the public telephone system, both landline and cellular, and the Internet may hinder efforts to warn those in the path of the flood.
 - Damage to bridges and roads, as well as other issues created by a major earthquake could also complicate efforts to notify and/or evacuate the public.

- A significant earthquake may cause such damage to the entire county that local response resources will be overwhelmed leaving very little response capability to deal with a potential dam failure.
- Sufficient local resources will be available to conduct the basic operations outlined in this annex. This assumption may not be valid if a Dam emergency is associated with a significant earthquake.
- If given advance warning, residents will frequently leave the at-risk area (self-evacuate) before told to do so; other residents may refuse to evacuate when instructed to do so. Once an evacuation order is given, many evacuees will seek shelter with relatives or friends, or arrange other accommodations. Others will need emergency shelter provided for them.
- Most evacuees will be able to self-evacuate out of the inundation area, while others will need evacuation assistance; additional/specialized resources may be needed for safe evacuation, transport and sheltering people with disabilities, and access and functional needs (DAFN) (e.g., children; the elderly; individuals with physical impairments, disabilities or other medical conditions; homeless or transient populations; and individuals with limited English proficiency).
- Evacuation assistance will be required by some pet and livestock owners; residents may refuse or delay evacuation unless they can take their animals with them.

3 Roles and Responsibilities of Tasked Agencies



All agencies tasked under this annex will develop and maintain written internal operating plans and implementing procedures, and will train employees in their use. All participating agencies will need to closely coordinate and cooperate during an evacuation that crosses jurisdictional boundaries to ensure that evacuee safety and welfare are not compromised.

3.1 On-Scene Incident Command/Command Center

Incident Command may be fire or law enforcement with jurisdiction over the impacted area

- Coordinate evacuation planning with County EOC and/or city.
- Designate boundaries of evacuation area and implement evacuation plan.
- Request County/city authority if evacuation is mandatory.
- Designate evacuee destination(s).
- Establish and operate evacuation routes.
- Develop evacuation instructions for residents.
- Develop and implement evacuation notification plan.
- Ensure that evacuation plans include DAFN populations, as well as pets and service animals.
- Ensure evacuee safety and welfare (unless responsibility has been transferred).
- Secure the evacuated area and establish criteria/procedures for re-entry.
- Get Oregon Emergency Response System (OERS) number.

3.2 Law Enforcement Agencies

Primary responsibility for planning, coordinating and conducting evacuations.

- Coordinate evacuation route planning and related logistical and operational support.
- Provide traffic and crowd control.

- Secure evacuated area and key facilities.
- Stage and brief incoming personnel who have been assigned to conduct evacuation including mutual aid resources.
- Assist, as needed and if time and resources allow evacuation of DAFN populations (see 4.4.1 for more information).
- Provide security for shelter and mass care operations as resources allow. • Conduct water rescue operations if required.

3.3 Fire Agencies

- Primary responsibility for coordinating and conducting rescue operations in a hazardous environment.
- Assist law enforcement in planning and conducting evacuation.
- Assist with evacuations of DAFN populations requiring transportation.
- Conduct decontamination operations if required.

3.4 County Emergency Operations Center

- Identify On-Scene Incident Commander/Command Center for the evacuation.
- Coordinate planning and support for evacuations that occur in unincorporated areas.
- Provide planning support and coordinate activities for evacuations affecting multiple jurisdictions within the County or with neighboring jurisdictions.
- Respond to requests for evacuation assistance from cities or On-Scene Incident Command/Command Center.
- Ensure the state the BCC and the Oregon Office of Emergency Management (OEM) are notified of the emergency, so they can make proper notifications and keep officials apprised of the situation.
- Get OERS number if not already not already obtained by On-Scene Incident Command/Command Center.
- Coordinate resource requests and Emergency Public Information activities.
- Public Information Officer is responsible for coordinating with Washington County on a Joint
- Information System (JIS) by activating the EOC Joint Information Center (JIC)
- Coordinate with Health, Housing, and Human Services (H3S) and the Red Cross to provide and manage shelter and mass care operations.
- Coordinate with Dog Services and EOC Operations to ensure pet shelter is established.
- Answer questions pertaining to evacuation and other subjects through activation of the County Public Inquiry Center
- Activate hazard evacuation pre-planning team if time permits

- Initiate re-entry into evacuated areas
- After the emergency has ended, coordinate the following activities:
 - Advise the public and the media of the termination of the evacuation directive and the lifting of the security perimeter (as appropriate)
 - Provide the information necessary to facilitate an orderly return to the evacuated area including any special constraints, conditions, or health and safety concerns for return

3.5 American Medical Response

- Coordinate planning and evacuation operations with law enforcement and fire.
- Primary responsibility for providing EMS and transportation for medically fragile and DAFN evacuees.
- Provide EMS at evacuation staging areas and along evacuation routes.

3.6 Clackamas County 9-1-1 Communications

- Receive initial notification from the Bureau of Reclamation (Bend Office) and Washington County 9-1-1.
- Make emergency notifications as pre-identified in the 'INFO DAM' procedure in CAD.
- Activate any other alert and warning method in coordination with CCDM and the On-Scene Incident Command/Command Center.

3.7 Disaster Management

- Receive notifications from Clackamas County Communications (CCOM) and Washington County Emergency Management Cooperative.
- Notify stakeholders of situation and establish and sustain information pathway.
- Assist On-Scene Incident Command/Command Center.
- Activate the Clackamas County EOC.
- With CCOM coordination, make Everbridge/Public Alerts notifications as needed.
- Declare an emergency.
- Consult with BCC or County Counsel on other emergency actions.
- Request support from the State.

3.8 Fire Defense Board

- Staff EOC.
- Coordinate countywide fire and rescue response.
- Request mutual aid.
- Potentially invoke Mobilization Act.

3.9 Cities

- Provide support for evacuations within municipal boundary (e.g. law enforcement, public works, shelter and mass care services).
- Coordinate activities and assistance requests with the County EOC.
- If capacity exists, conduct direct public alert and warning to its citizens in coordination with County EOC.

3.10 Health, Housing and Human Services

- Provide an H3S liaison to the EOC to coordinate shelter and mass care services.
- Provide interim assistance to evacuees at gathering points and evacuation routes.
- Coordinate transfer of responsibility for evacuee safety and welfare with On-Scene Incident Command/Command Center, cities, service agencies, shelter operators.
- Work with Red Cross Liaison for sheltering and mass care needs.
- Coordinate DAFN considerations with other responding agencies.

3.11 Transportation and Development

- Coordinate evacuation routes, detour options and enroute resource requirements with stakeholder transportation agencies.
- Assist law enforcement to establish at-risk area perimeter.
- Provide signs, barricades, personnel and equipment along evacuation routes and at designated replenishment stations.
- During any warning phase, pre-position resources near bridges to monitor and be ready to close them immediately should signs of damage or failure be exhibited.
- Maintain clear evacuation routes by removing debris and other obstructions.
- (Dog Services) Coordinate with EOC Operations to ensure pet sheltering needs are addressed.
- Assist in finding transportation for evacuees with pets or service animals.
- Conduct post-incident road and bridge inspections.
- Assist with evacuating livestock.

3.12 Utility Providers

- Secure own assets and protect staff.
- Establish and maintain communication with EOC.
- Coordinate evacuation routes, detour options and enroute resource requirements with stakeholder transportation agencies.

4 Concept of Operations

4.1 General

This annex is designed to follow the basic protocols set forth in the EOP. The EOP describes general roles and responsibilities in response to a major emergency or disaster that would include evacuations. It also describes how resources are coordinated within the County.

Dam failure response and evacuation actions include:

- Community-wide warning and public instructions such as notifying all affected populations of the threat and the need to evacuate
- Safe movement and control of individuals, pets and service animals out of the threatened area, including evacuation routes, traffic control and evacuee instructions
- Transportation support for DAFN populations (e.g., people with disabilities, elderly, persons without vehicles).
- Shelter and mass care for evacuees, pets, livestock and service animals.
- Security of the evacuated area, including access control.
- Safe and orderly re-entry to evacuees when it is safe to do so.
- Activation of the EOC to coordinate resource management, information management and policy coordination.

4.2 Alert and Warning

Communicating risks to the public in a clear, consistent (i.e., non-conflicting) and timely manner is essential for orderly evacuations. The operation of the JIC in the EOC to be activated at the earliest opportunity to coordinate and ensure messaging is effective to support orderly evacuations.

4.2.1 Public Alert and Warning

If a Scoggins Dam failure should occur, proper procedures are outlined in the following sections below: stakeholder alert and warning, message responsibility, notification methods, and alert and warning content.

4.2.2 Stakeholder Alert and Warning

Upon receiving notification of a Scoggins Dam failure from CCOM, the CCDM Duty Officer notifies pre-identified stakeholders using the “Scoggins Dam Stakeholder Notification” List in Everbridge.

Message information includes:

- Type of failure condition and affected dam
- Time notification was received
- Contact information for CCDM and follow on instructions

4.2.3 Message Responsibility

- CCOM notifies CCDM for all levels of dam failure conditions. The EOC is activated to support evacuation planning, coordination and operations.
- On-Scene Incident Command/Command Center is responsible for conducting Alert and Warning notification above and beyond automatic Public Alerts notification.
- The EOC JIC has primary responsibility for developing and coordinating the evacuation Alert and Warning message and all other relevant communications in coordination with Washington County through the JIS.
- CCDM coordinates with impacted cities and jurisdictions to ensure consistent messaging is conveyed through their individual alert and notification systems

4.2.4 Notification Methods

The Everbridge System can directly notify households with landline and registered cell phones in the designated evacuation area using a “Reverse 9-1-1 type” capability.

- Emergency Alert System
- Social media
- County web site
- Mobile public address systems such as police vehicles and fire apparatus
- Radio and television
- Door-to-door notification
- The Public Inquiry Center can be used to disseminate alerts and warnings to citizens who call in requesting evacuation information
- Alert and warning for some populations may require special considerations

4.2.5 Alert and Warning Content (if needed beyond initial Everbridge/Public Alerts notification)

- Specific instructions about what to do (e.g., take 72 hours of medications with you; lock your home; bring household pets and service animals; take food, water and emergency kits).
- Clear directions and procedures for evacuation routes.
- Public transportation options and locations.
- Specific information about the potential consequences of not evacuating.

4.3 Initial Response Actions

The following describes actions to be considered for all response levels depending on the situation. Since the inundation zone crosses jurisdictional boundaries, between Fire Districts and County and cities, the county may activate the EOC and coordinate the countywide response. Local jurisdictions within the flood inundation zone need to be ready to protect their residents and visitors through emergency notification, establishing command structures, and organizing and conducting evacuations. An Incident Commander at any level has decision-making authority to take action described in this annex as the responsibility of an Incident Commander. When multiple Incident Commanders are operating concurrently, each should coordinate those actions with the other Incident Commanders.

4.3.1 Establish Command

Due to the length of the Tualatin River and the extent of the impact area from a catastrophic failure of Scoggins Dam, the inundation area has been divided into two emergency evacuation/planning zones. The zones are defined as specific segments of dam failure flood inundation areas downstream from Scoggins Dam that:

- Define the potential area of impact
- Allow response personnel to prioritize evacuation activities based on the population at risk in proximity to the dam in terms of distance downstream and in flood wave arrival times.

The two emergency evacuation/planning zones are designated as:

- **Upper River** – The area protected by Gaston Fire, Forest Grove Fire, Cornelius Fire, Hillsboro Fire and Tualatin Valley Fire and Rescue (TVF&R) (from the dam to Roy Rogers Road).
- **Lower River** – The area protected by TVF&R and Lake Oswego Fire Department (LOFD), from Roy Rogers Road to the Willamette River. Clackamas County falls into the Lower River Response category due to physical distance and lapsed time prior to impact from the Scoggins dam.

Lower River Response. The inundation area maps reveal that it will take more than 20 hours for Scoggins Dam failure flood waters to reach the lower river area and 47 hours to reach western most area of Clackamas County. The lower river scenario for a Scoggins Dam failure is very similar to the scenario for a major flood of the Tualatin River; heights and timing of flood waters are similar. TVF&R and LOFD coordinate with affected cities and agencies within its service area and with the Washington and Clackamas County EOCs and deal with a Scoggins Dam failure in the same fashion as a major flood of that section of the river.

4.4 Evacuation

On-Scene Incident Command/Command Center assesses the need for public and DAFN transportation and request resources through the EOC staff or directly with public transit agencies.

Some of the major roads will be impacted; therefore, emergency egress and ingress routes as well as meeting points have been pre-identified in the associated maps. For a detailed listing of these roads, refer to Appendix A: IA 5 Resources.

4.4.1 Evacuation Levels

- Evacuation response should be designated according to the following levels and based on consultation with OEM.
 - **Evacuation Level 1** – A Level 1 Evacuation means “Be Ready” for potential evacuation. The affected population should be aware of the danger that exists in their area, and monitor local media outlets for information. The affected population with special needs or those with pets or livestock should make preparations and begin making precautionary movement.
 - **Evacuation Level 2** – A Level 2 Evacuation means “Be Set” to evacuate. The affected population must be prepared to leave at a moment’s notice. This level indicates a significant danger to the area, and the affected population should either be told to voluntarily relocate to a shelter or with family/friends outside the affected area, or if choosing to remain, to be ready at a moment’s notice. The affected population may have time to gather necessary items, but doing so at their own risk.
 - **Evacuation Level 3** – A Level 3 Evacuation means “Go” Evacuate NOW. Danger to the area is current or imminent, and people should leave immediately. The affected population should not delay leaving to gather belongings or make efforts to protect their home.
- If a Level 1, 2, or 3 evacuation is implemented resources should be deployed first to areas with the highest and earliest risk. Even in the unlikely event of a sudden catastrophic failure of the dam, initial flood wave waters will take approximately 47 hours to travel to the westernmost point on the Tualatin River in Clackamas County.
- Individual jurisdictions may want to identify assembly areas. When considering sites for assembly areas, the following criteria should be considered: sites that have sufficient parking, access, and/or open space such as schools, churches, the county fairgrounds, or parks
- The evacuation of some DAFN populations may require special coordination and logistical support
- DAFN populations within the county which may need assistance during evacuations include:
 - Senior citizens
 - People with functional needs
 - Students in public and private schools
 - People with pets
 - Transient and people experiencing homelessness

- While most facilities with DAFN populations, including schools, are required to have evacuation plans in place, most do not, or are unable to carry them out without assistance from first responders. Public safety officials may be required to facilitate or initiate the evacuation internal to the facility

4.4.2 Inundation Area

The following is an abbreviated list of populated areas downstream from the dam in the expected inundation area during a full pool/quick release scenario. Additional facilities may also be impacted.

- Starting at the county line on 65th Avenue to confluence with the Tualatin River to the Willamette River:
 - Rural homes and farm lands along the river
 - Low lying riverfront properties in the City of Tualatin at Nyberg Lane
 - Low lying riverfront properties in the City of Rivergrove
 - Low lying riverfront housing in the City of Lake Oswego
 - Lake Oswego Corporation Canal Headgate
 - Borland Road crossing
 - Low lying riverfront housing in the City of West Linn
 - Low lying riverfront housing in the unincorporated area of Clackamas County

4.4.3 Evacuation Response

Evacuation takes time and may be complicated by available resources and the condition of evacuation routes due to time of day, weather, type of event triggering the evacuation (e.g., earthquake), and rising flood waters. Even in a Level I incident, the potential for escalation to Level II or III requires that planning begin immediately for a possible mandatory evacuation.

An evacuation will require many resources and support from multiple agencies to achieve. Consider that:

- Evacuation may be necessary even if individuals don't live in the inundation zone as ingress/egress from their property may be blocked by flood waters or damaged roads and bridges
- Transportation resources and other physical assistance may be needed
- Assembly areas may be needed to direct people to prior to the establishment of shelter sites
- Shelters may need to be established to house and feed evacuees
- Animals may need to be evacuated
- Clear and concise information provided to the public about:
 - Who needs to evacuate

- Evacuation timeframe
- What routes to use
- Location of assembly areas and/or shelters
- The need to avoid high water
- Potential evacuation routes, their capacities, and vulnerability to the hazards that exist at the time of the dam failure have been pre-identified on the associated maps, but additional (if they exist) may need to be identified during the time of evacuation
- People who are located in the inundation area at the time of an incident should be directed to go to higher ground
- Traffic may need to be re-routed to minimize congestion as people evacuate affected portions of Clackamas County
- Roads may need to be blocked at restricted area control points to keep people from intentionally, or inadvertently, entering the inundation zone
- Similarly, if resources allow, during any warning phase, resources should be prepositioned near bridges to be ready to close them immediately should signs of damage or failure be exhibited
- When determining the “time needed for evacuation” consider these time factors:
 - Time from receipt of initial notification of a dam failure to the decision to
 - evacuate
 - Time needed to alert and instruct the public
 - Time needed to mobilize the population once warned
 - Time required for evacuees to leave the hazard area using the designated evacuation routes with consideration for overcoming obstacles related to earthquake losses, damage, and debris

Weather Conditions

- If ambient or forecasted conditions present a hazard (e.g., extreme cold or heat, ice, rain) evacuees may need assistance, including:
 - Shelter from the elements
 - Evacuation routes cleared of obstacles/hazards (e.g., debris, snow, ice)

4.4.4 Evacuation Re-Entry

Inundation from a dam failure will be short term, but impacts can result in prolonged hazards from the flood, damage to infrastructure and hazardous materials releases. The following considerations should be addressed prior to allowing re-entry:

- Conduct hazard/damage assessments to determine if additional or new hazards exist prior to allowing evacuees to return. Isolate, mark, or mitigate the hazards as appropriate. This assessment should include inspection of any water, gas, and sanitation lines

- Provide traffic control and access control (i.e., returning evacuees only) for the return
- Initiate return of evacuees when and where possible
- Re-occupation of a previously flooded area may require the same consideration, coordination, and control undertaken in the original evacuation
- Unified Command makes the re-entry decision after the flood waters have subsided and the evacuated area has been inspected by fire, public works, law enforcement personnel and/or utility work crews for safety
- Determine if return will be temporary (i.e., long enough to check on damages and get additional personal items, or just during daylight hours) or full return
- Conduct inspections of buildings that were flooded and tag according to fitness for occupancy
- Additional re-entry considerations include:
 - Determine the number of persons in shelters who will have to be transported back to their homes
 - If homes have been damaged, determine the interim and long-term housing requirements
 - Inform the public of proper re-entry actions, particularly cautions they should take with regard to reactivating utilities, use of appliances that came in contact with water, and any other health related issues

4.5 Shelter and Mass Care

A Scoggins Dam failure along the Tualatin River will cause temporary flooding. This will impact most residents for several hours to one day for a sunny day scenario. For those residents who are severely impacted resulting in damage or loss of housing, the EOC coordinates temporary sheltering.

- The Red Cross assigns a liaison to coordinate shelter and mass care requirements along with H3S.
- There is a County list of potential shelter facilities with American Red Cross agreements .
- The American Red Cross coordinates with the County EOC to select most appropriate sites and then follows up with their site assessment and shelter operations protocols.
- On-Scene Incident Command/Command Center coordinates transfer of responsibility for evacuee safety and welfare to the American Red Cross or local jurisdiction once evacuees are safely removed from at-risk area.
- Pet shelters are set up and run by the Operations Section of the EOC. Every attempt is made to shelter pets in areas adjacent or in close proximity to their owners.
- H3S is tasked with several functions including mass care and services for the affected population.

5 Emergency Coordination



5.1 General

The County has jurisdictional authority and primary incident management responsibility for incidents that occur in the unincorporated area and for health emergencies countywide. If the incident impacts both the unincorporated and an incorporated area, the county and the impacted city share responsibility. The county responds to city requests for assistance, manage critical resources, and coordinate with outside agencies, adjoining counties, and OEM.

5.2 Cities

If an incident occurs in an incorporated area, the city in which it occurs has jurisdictional authority and primary incident management responsibility. Local jurisdictions activate their own resources and EOCs for an evacuation of their communities based on the failure condition. In most cases, evacuations will require the activation of the County EOC to support the movement of evacuees due to limited local resources.

If two or more cities are impacted, the cities share responsibility for incident management and the safety and well-being of their citizens.

Cities may request county assistance through a mutual aid agreement or by submitting an Emergency Declaration.

5.3 Special Districts

Special districts that are impacted will activate their own resources and EOCs for response, protective actions and evacuation of their facilities based on the failure condition. Special districts may request county assistance through a mutual aid agreement.

5.4 County

EOC Command along with On-Scene Incident Commander/Command Center exercises overall direction and control of the evacuation process.

5.5 Regional

There are many regional agreements that could provide emergency resources that would include equipment, supplies and personnel. The EOC Library has a list agreements with the terms and conditions sited.

5.6 State and Federal Assistance

Oregon State Police may help in the evacuation of threatened areas and the Governor may also provide National Guard assistance.

If an evacuation requires resources beyond those available to the county (including mutual aid resources), EOC Command may recommend an Emergency Declaration be enacted to request state assistance.

6 Support Annex Development and Maintenance



In coordination with Stakeholders, Clackamas County Disaster Management is responsible for maintaining this annex. This annex will be updated according to the schedule outlined in the Basic Plan.

7 Appendices

- Appendix A – IA 6 Resources



Appendix A IA 6 Resources



The following plans and procedures to support a Scoggins Dam Failure are currently in place:

- Bureau of Reclamation Emergency Action Plan for Scoggins Dam #111, dated August, 2015
- Duty Officer Dam Notification Instructions
- CCOM INFO DAM
- Scoggins River Dam Failure Stakeholders Contacts in the Everbridge System
- List of affected Roads and Infrastructure (dated 2016)
- List of affected addresses and tax lots (dated 2014)

THIS PAGE LEFT BLANK INTENTIONALLY