**External Flood Response Plan**

**Montana External Flood Resources and Information**

**1. Federal and Montana State Emergency Preparedness Resources and Links**

* [FloodSmart | How to Prepare for a Flood and Minimize Losses](https://www.floodsmart.gov/community): Take steps to protect your property and business throughout the year, and take extra precautions when flooding impacts you immediate area.
* [FloodSmart | Increased Costs of Compliance | FloodSmart](https://www.floodsmart.gov/flood/mitigating-flood-damage): Mitigation and planning to help reduce future flood damage at your business and site location.
* [FEMA Flood Map Service Center | Welcome!](https://msc.fema.gov/portal/home): This flood map finder, will help you search and find out if your location is in a flood zone or not.
* [How to Prepare for a Flood: A Guide + Checklist (crisisequipped.com)](https://crisisequipped.com/how-to-prepare-for-a-flood/): A complete checklist and guide on how to prepare for a flood.
* [How to Prepare for a Flood | Allstate](https://www.allstate.com/tr/flood-insurance/preparing-your-home-for-a-flood.aspx): Preparing your business for a flood, during a flood and what you should do after.
* [Be prepared for spring flooding in Montana (redcross.org)](https://www.redcross.org/local/montana/about-us/news-and-events/news/Be-prepared-for-spring-flooding-in-Montana.html): The Montana Red Cross urges everyone to be prepared should flooding occur in your area. They have listed the necessary steps when a flood occurs.
* [National Weather Service](https://www.weather.gov/): When bad weather is near, stay to up to date of potential flooding. This site also contains up to date weather maps of where flooding may currently be.
* [How to Stay Safe During a Flood | ServiceMaster of the Shore Area (restorationmasterfinder.com)](https://restorationmasterfinder.com/restoration/how-to-stay-safe-during-a-flood/): When the flood is here, what to do now to do to stay safe. Every year, more and more lives are taken by [flood waters](https://maps.google.com/maps?cid=3309397328411169327&_ga=2.246973700.1023313753.1600090640-969178165.1567013535) as they are more dangerous than any other weather hazard. This link shows several steps to stay safe during a flood. This link includes response strategies, tactics and alternatives, suppression and post-fire rehabilitation and restoration.
* [Montana Flood Maps | FEMA Flood Zone (floodfind.com)](https://floodfind.com/montana-flood-maps/): Montana Flood Map Information Link.

**2. Montana Regional Emergency Preparedness Resources and Links**

* [Mapping and Technical Resources — Montana DNRC (mt.gov)](http://dnrc.mt.gov/divisions/water/operations/floodplain-management/mapping-and-technical-resources): The Floodplain Mapping Program is responsible for implementing the Montana Floodplain and Floodway Management Act (MCA 76-5) and the 2005 Cooperating Technical Partner agreement with the Federal Emergency Management Agency (FEMA).
* [Be prepared for spring flooding in Montana (redcross.org)](https://www.redcross.org/local/montana/about-us/news-and-events/news/Be-prepared-for-spring-flooding-in-Montana.html): The Montana Red Cross urges everyone to be prepared should flooding occur in your area. They have listed the necessary steps when a flood occurs.

**3. Montana Local Emergency Preparedness Resources and Links: please add in local information specific to the county or counties where your Health Center (s) are located.-**

<Incorporate any of your organization’s existing response plan information throughout these templates.>

<FIND and REPLACE WORDS: Look for the words in GREY. Insert LOGO in the upper right corner of the header.

1. <insert organization’s name> = Your Organization’s Name
2. Patient, patients, patient = Use the most appropriate words that describes the individuals that your organization services (i.e., patient, resident, participant, client, etc.)

<Delete these instructions in RED.>

**Background**

The External Flood Response Plan provides mitigation, preparedness, response, and initial recovery strategies for an external flood that has a significant effect on the <insert Organization’s name>.

According to FEMA, **“**Flooding is the most common natural disaster in the United States, affecting every region and state, including yours” and it also reported that nearly 90% of all disasters have a flood component to it. After heavy rains, rapid snow melts, dam or levee breaks, spillway openings, water escapes from waterways, and/or because of other water related emergencies, like hurricanes and tsunamis, the consequent overflow of water onto land that is normally dry is termed flooding. Mountain canyons, steep hills, low water crossings, recent burn areas (burn scars), and urban areas are all high-risk locations for flooding and flash flooding.

Throughout the United States, flooding is most common from spring through summer and into the early fall. Flooding causes an average of five billion dollars in damage every year, which is more than any other weather-related event. These costs are rising annually, and the impacted areas are growing beyond traditional flood areas.

Montana Flood Map Information Link: [Montana Flood Maps | FEMA Flood Zone (floodfind.com)](https://floodfind.com/montana-flood-maps/)

FEMA Food Maps: https://www.fema.gov/flood-maps

<Insert the impact of this hazard on your program site>.

<Discuss the significance of season, geographic area, human population, etc., that may be associated with this hazard in your local area> Delete these instructions in RED.>

# Definitions

* **Storm Surge:** An abnormal rise of water generated by a storm, over and above the predicted astronomical tides. Storm surge is produced by water being pushed toward the shore by the force of the winds moving cyclonically around the storm.[[1]](#footnote-2)
* **Storm Tide:** The rise of water level due to the combination of storm surge and the astronomical tide.
* **River Flood:** Normally caused by excessive rainfall, snowmelt, and/or thunderstorms in the same area over a short period of time.
* **Coastal Flood:** Normally caused by excessive rainfall over a short period of time with high winds and higher than normal high tides.
* **Inland Flood:** Normally caused by excessive rainfall over a short period and/or moderate rainfall over many days, dam or levee failures, hurricanes, and/or river overflows.
* **Flash Flood:** A flood caused by heavy or excessive rainfall in a short period of time, generally less than 6 hours. Flash floods are usually characterized by raging torrents after heavy rains that rip through riverbeds, urban streets, or mountain canyons, sweeping everything before them. They can occur within minutes or a few hours of excessive rainfall. They can also occur even if no rain has fallen, for instance after a levee or dam has failed, or after a sudden release of water by a debris or ice jam.[[2]](#footnote-3)
* **Mudflow:** Earth carried by flood waters that create a river of flowing mud or other water-related emergencies that create flowing mud.
* **Floodplain:** Land that is particularly susceptible to flooding.
* **Flood Zones:** Flood hazard areas that show the severity or type of flooding are categorized as:
  + Special Flood Hazard Areas (SFHA): With a 1.0% chance of flooding (annual).
  + Moderate Flood Hazard Areas: With a 0.2% annual chance flooding.
  + Minimal Flood Hazard Area: With areas less than 0.2 % annual chance flooding.
    - Refer to FEMA Flood Map Service and National Flood Insurance Program (NFIP) to find the Flood hazard area associated with the organization at: <https://msc.fema.gov/portal>
* **Flood Severity:**
  + **Minor Flooding:** Small public threat and zero to minimal property damage.
  + **Moderate Flooding:** Some evacuations and some flooding of structures and roads. Some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations are necessary.
  + **Major Flooding:** Extensive evacuations and extensive flooding of structures and roads. Extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.
* **National Weather Service Flood Notification Terminology**
  + **Flood Advisory:** Highlights special weather conditions that are less serious than a warning or if flooding is imminent (1-3 hours) but will not be expected to be severe enough to issue a flood warning.
  + **Flood Warning:** A warning is issued when a hazardous weather or hydrologic event is occurring, is imminent, or has a high probability of occurring. Issued when flooding is imminent (1-3 hours) or already occurring because of hazardous weather conditions.
  + **Flood Watch:**  A watch is used when the risk of a hazardous weather or hydrologic event has increased significantly, but its occurrence, location, and/or timing is still uncertain. A Flash Flood Watch is also issued when a dam has not failed but will fail within the next 24-48 hours. A Flood Watch is issued when conditions are favorable for flooding. It does not mean flooding will occur, but it is possible.[[3]](#footnote-4)
  + **Flash Flood Watch:** Issued when flash flooding is possible (within 36 hours) because of weather conditions.
* **Flood Watch for Dams:** Issued by the National Weather Service (NWS) when a dam has not failed but will fail within the next 24-48 hours. A watch is used when the risk of a hazardous weather or hydrologic event has increased significantly. It is intended to provide enough lead time so that those who need to set their plans in motion can do so.
  + High Hazard Potential refers to dams located where failures will cause a loss of life and severe damage to homes, industrial or commercial facilities, important public utilities, main highways, or railroads.
  + Significant Hazard Potential refers to dams located where failure may cause loss of life and damage homes, industrial or commercial facilities, secondary highways, or railroads or cause interruption of use or service of important facilities.
  + Low Hazard Potential refers to dams located where failure may cause minimal property damage to others. Loss of life is not expected.
    - * Levees: Levees are used to protect land from peak flood levels and/or to protect land that is below sea level. A potential structural-based breach location should with the community as a high-risk factor along the levee. There are two types of levees.
      * **Levee 1:** designed to withstand peak flood levels that are caused by rapid snow melt or intense rainfall.
      * **Leve 2:** designed to withstand nominal water levels on a continuous basis as well as peak flood levels.
* **Flash Flood Warning:** A warning is issued when a hazardous weather or hydrologic event is occurring, is imminent, or has a high probability of occurring. A Flash Flood Warning is also issued when a dam has failed, or failure is imminent or expected to fail within 12 hours. Issued when flash flooding is imminent (1-3 hours) or already occurring because of hazardous weather conditions and may even be issued in areas not experiencing hazardous weather conditions, because of the fast-moving and violent nature of flash floods.
* **Flash Flood Warning for Dams:** This warning issued when a dam has failed, or failure is imminent or expected to fail within 12 hours. A warning is issued when a hazardous weather or hydrologic event is occurring, is imminent, or has a high probability of occurring. A warning is used for conditions posing a threat to life and/or property.

**Policy**

It is the policy of <insert organization’s name> to protect our patients, staff, and others in our program site from harm during emergency events. To accomplish this, we have developed procedures for specific hazards which build on the cross-cutting strategies in our continuity of operations plan.

**Objectives**

* Maintain the security of <insert Organization’s name> program sites to protect the safety and well-being of patients, staff, and visitors.
* Maintain ongoing patient care and continuity of care during disaster.

# Procedures

1. **General Guidelines**
   * Staff shall receive training on this Plan.
   * Staff are required to follow this External Flood Response Plan and any instructions given by law enforcement, first responders, or management staff.
   * Staff are required to follow any instructions given through primary or backup communications systems.
   * Staff are required to know the program site exit routes and assembly points.
2. **Preparedness**

* **Management Staff**
  + - **Flood Watch and Flash Flood Watch:** Indicates a flood or flash flood is possible (within 36 hours):
* Management will actively monitor NOAA Weather Radio All-Hazards (NWR).
* Management will communicate with local government and the Office of Emergency Management (OEM) to determine the severity of the situation and to seek guidance per **Section 3: Communications Plan**.
* Management will communicate the facts to all staff and direct staff to either evacuate, shelter in place, or operate as normal.
* **Alteration of Services** may be necessary in advance of the emergency.

<Indicate how/when services/times may be altered, including criteria for making this decision>

* + **Flood Advisory and Flood Warning:** 
    - Flooding is Imminent (1-3 hours):
* Management shall follow all the steps of Flood Watch and Flash Flood Watch.
* If flooding is already occurring, Management shall direct staff to either evacuate or shelter in place as the situation determines, as advised by OEM, or by other regulatory agencies.
* If sheltering in place, Management shall direct staff to close blinds, shutters, windows, and doors.
* If evacuating, Management shall give staff enough time to allow for a safe evacuation from flood zones and critical impact zones.
  + **Flash Flood Warning:** Flash Flooding is Imminent (1-3 hours):
* Management shall follow all the steps of Flood Advisory and Flood Warning.
* Management shall also communicate the dangers of flash flooding and the unpredictability of flash flooding in addition to normal shelter in place or evacuation instructions.
* In the event of a shelter-in-place order, Management staff shall communicate to all staff, patients, and visitors at a program site to remain indoors until the all-clear notice is given.
* Management staff shall clearly activate and execute the Safe Evacuation or Shelter-in-Place Police and Procedure.

1. **Response**

* **General**
  + In the event of an external flood or flash flood:
* Remain Calm.
* Reassure patients.
* Follow orders from the Incident Commander or local first response agency.
* Assess the situation to determine the flood-related threats and the severity level of those threats, if safe to do so.
* In the event flooding is already occurring, staff shall assist patients and visitors as deemed safe and immediately seek safe shelter.
* Alert management staff as necessary to any infrastructural damage, including failing or near failing doors, windows, blinds, shutters, etc.
* During any form of electrical failure, use the stairs - DO NOT use elevators.
* If directed, follow evacuation procedures as determined necessary by Incident Commander.
* If directed, follow Shelter-in-Place procedures as determined necessary by Incident Commander.
* **Management Staff During an External Flood Response**
* Determine the severity of the flood-related threats, if safe to do so.
* Determine the need to activate ICS.
* Management staff will continue to communicate with local government and OEM to determine the need to activate:
* Safe Evacuation Policy and Procedure per **Section 2: Policy and Procedures #1: Safe Evacuation.**
* Shelter-in-Place Policy and Procedure per **Section 2: Policy and Procedures #1: Shelter in Place.**
* Utility Failure Response Plan in the event of utility failures.
* During floods that cause infrastructural damage leading to life-threatening conditions call 9-1-1.

1. **Recovery**

* After a flood occurs, the CEO/Executive Director or Incident Commander will assess each program site’s ability to continue and maintain operations. This will be accomplished with the aid of the fire department and/or trained building inspectors as death or severe injury can occur when untrained employees re-enter a damaged or contaminated program site. The closing of an entire program site or portions of a program site will be determined by the CEO/Executive Director or designate. Factors that go into this decision can include safety of drinking water and other utilities, stability of the building or surrounding areas, safe access for patients, and availability of communications to name a few.
* **Return to Normal Operations** may not happen, or be possible, immediately.

<Indicate how/when services/times may be resumed, including criteria for making this decision>

1. https://www.nhc.noaa.gov/surge/ [↑](#footnote-ref-2)
2. <https://www.weather.gov/mrx/flood_and_flash> [↑](#footnote-ref-3)
3. https://www.weather.gov/lwx/warningsdefined [↑](#footnote-ref-4)