Flood Emergency Response Plan (FERP)

District Name

Address

As of Date

\*\*This is a template to be used for your District’s needs. You may add and remove as you see fit.\*\*

**Person in charge of FERP:** Name/Title

**FERP Team Members:** Name/Title

Name/Title

Name/Title

1. **Introduction:** This Flood Emergency Response Plan (FERP) has been established to clearly define actions that should be taken in the event of a pending flood event to our facilities. The plan is designed to proactively outline actions to be taken to reduce physical loss to buildings, vehicles, machinery and equipment and stock/supplies in order that we may resume operations as quickly as possible after the flood event is over. This plan is to be updated every year during the month of Month.
2. **Overview and flood threat:** The District’s facilities are exposed to flooding from Name of Rivers/Lakes/Creeks in Name of City/Town. The following is a list of the District’s buildings and their respective finished floor elevations. There are also columns to note if the building is in the 100-Year and 500-Year flood elevations. The 100-Year flood is the definition of a flood that statistically has a 1 in 100 or 1% chance of occurring in a given year. 500-Year has a 1 in 500 or .2% chance of occurring in a given year. \*\*Floodplain levels can be located at [fmglobal.com/research-and-resources/global-flood-map/flood-map](http://www.fmglobal.com/research-and-resources/global-flood-map/flood-map).

|  |  |  |  |
| --- | --- | --- | --- |
| **Building/Structure** | **Finished Floor Elevation** | **In 100-Year Elevation?** | **In 500-Year Elevation?** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. **Monitoring Potential Flood Event:** The \_\_\_\_\_\_\_ Manager will advise the FERP leader when flood conditions are possible. When potential flooding goes beyond a flood alert stage, the FERP leader will assign personnel the responsibility to visually monitor the Rivers/Lakes/Creeks elevations each hour and record and report the findings to the FERP leader. The FERP leader will be responsible for implementing various components of the FERP based on river elevations.

The District’s facility and buildings are susceptible to flooding in the event of an extended period of rain. When a rainfall event of more than 2 inches per hour of rain for a sustained period of two hours occurs, the FERP leader or designate (Shift Supervisor during off peak hours) shall initiate the District’s Disaster Recovery phone tree. The listing of essential employees is as follows:

Name Title 000-000-0000(H), 000-000-0000(C)

Name Title 000-000-0000(H), 000-000-0000(C)

Name Title 000-000-0000(H), 000-000-0000(C)

Name Title 000-000-0000(H), 000-000-0000(C)

Name Title 000-000-0000(H), 000-000-0000(C)

1. **Before/during the rain event**

**Buildings:** The following precautions will be taken by essential staff to ensure safety of the building. (Add rows as needed)\*\*

|  |  |  |
| --- | --- | --- |
| **Building component/area** | **Damage potential** | **Required Action** |
| Egress locations | Water intrusion | Sandbag perimeter |

**Heavy Equipment and Vehicles:** Tractors, Backhoes, Excavators and vehicles shall be moved to an area or height deemed to be outside of the 100-Year floodplain. The area should be secured in a way to minimize damage due to vandalism. (Add rows as needed)\*\*

To give an example, before Hurricane Harvey, Houston Metro relocated a majority of their buses to the highway interchanges that were well above the floodplain. They were able to move the buses when the flood water receded.

|  |  |
| --- | --- |
| **Type of Equipment** | **Relocation Area** |
| Backhoe | Elevated area in yard |

**Equipment:** All equipment (electrical; motors, drives, batteries, etc.) located below grade or in the floodplain needs to be secured, removed or protected in a manner that would prevent damage from water intrusion. (Add rows as needed)\*\*

|  |  |  |
| --- | --- | --- |
| **Equipment** | **Location** | **Required Action** |
| Electrical Motor Drive | River Station | Remove and relocate until after water recedes |

1. **After the flood:**

**Salvage and Business Resumption Plan (24-48 hours)**

1. Removal of remaining floodwater, mud and debris in and around any buildings by using wash down hoses, brooms, squeegees, mops, sump pumps and clean-up supplies.
2. Analyze all salvageable materials and equipment, begin discard/removal of all non-salvageable materials/equipment.
3. Contact the insurance company.
4. Contact a debris removal company.
5. Photograph or videotape all damage.
   1. This will be useful for insurance claim submissions
6. Account for all damage related costs.
7. Keep detailed records.
   1. Establish record codes for purchases and repair work
   2. Keep all receipts
8. Conduct salvage operations.
   1. Separate damaged from undamaged property.
9. Take an inventory of damaged property. Damaged property and goods should be kept on hand until the insurance adjuster assesses the damage.
10. Assess the value of damaged property and the impact of business interruption.
11. Protect undamaged property by making temporary repairs.
12. Contact the local building department to get a list of reputable contractors to assist in building repairs.
    1. DO NOT use a contractor that shows up offering their services.
13. If possible, remove smoke, water and debris.
14. Clean roof drains and remove debris from roof to allow proper drainage.
15. Visually check and open bus bars, conductors and exposed insulators before restarting main electrical distribution systems
16. Remove sandbags, window boarding and other items used to protect the building exterior.
17. Cleaning/drying of all essential equipment (lubricate as needed).
18. Dehumidify/dry out all damp areas that are not commonly wet.
19. Preserve equipment/materials that might otherwise be lost.
20. Reclaim any salvageable supplies and operating equipment.
21. Conduct safety walkthrough by the Safety Officer and/or Safety Committee. Necessary utilities and other building professionals should be included as needed: Fire Department, Electric/Gas Utilities, Building Inspector, etc.
22. **Contractors List/Phone Numbers** (Add/remove as needed)\*\*

**Prior to the flood:**

Company Name Security/Monitoring XXX-XXX-XXXX

Company Name Fire Alarm Panel XXX-XXX-XXXX

Company Name Sprinkler System XXX-XXX-XXXX

Company Name HVAC XXX-XXX-XXXX

Company Name Building Supplies XXX-XXX-XXXX

**Immediately prior and during the flood:**

Company Name Electrical Contractor XXX-XXX-XXXX

Company Name Plumbing Contractor XXX-XXX-XXXX

**After the flood:**

Company Name Septic Service XXX-XXX-XXXX

Company Name Roof Contractor XXX-XXX-XXXX

Company Name Waste Removal XXX-XXX-XXXX

Company Name Water Damage Contractor XXX-XXX-XXXX

Company Name Oil Vendor XXX-XXX-XXXX

Company Name Gas Vendor XXX-XXX-XXXX

1. **Employee Safety**

All Preparation and RecoveryTeams

* Do not take short cuts!
  + Use the right tools for the job
  + If that means walking back to the shop to get the right tools/materials, you do it
  + Do not improvise
* Be mindful of trip hazards while prepping around the buildings
  + Cords and cables
  + Machines and tools
  + Building materials
  + Potholes in ground and parking lot
* When lifting, keep the item in front of you and as close to the body as possible.
* When crouching to lift, keep your back as vertical as possible and use your legs to lift.
* Team lift (ask for help) when items weigh more than you can comfortably lift and carry on your own
* Do not lift filled sandbags on your own
  + Use equipment or team lift
* Inspect all ladders prior to use to verify their stability
  + Ladders used for roof access should be secured to the building and should extend three feet beyond the roofline
* Wear appropriate Personal Protective Equipment (PPE)
  + Safety glasses
  + Gloves
  + Hard hat
* Utilize Lock out/Tag out if any work is performed on electrical/motorized equipment
  + One lock per individual working on the electrical equipment

Employee Safety Items – Make sure these items are ready to go by June 1 of every year

* Two radios
  + One for Emergency Broadcast System reports
  + One for weather reports
  + Battery powered or hand crank
* Two-way radio communication
* Enough water on hand for three days/person
  + For essential personnel that needs to stay during the storm
* Non-perishable food items for three days/person
  + For essential personnel that needs to stay during the storm
  + Manual can opener
  + Plastic spoons, forks or sporks
* Consider keeping meat on hand throughout the year and bbq if non-perishable food runs low due to prolonged outages and/or store closures.
  + Members ran out of non-perishable food items during Tropical Storm Allison
    - Residents in the area bbq’d and fed the member’s employees.
* Flashlights
  + Extra batteries
* Dust masks
* Sani wipes or moist towlettes
* Hand sanitizer
* Reserve water container for hand washing/showering
* Blankets
* Change of clothes
* Cash
  + Power outages will render credit cards useless
* All vehicle fuel levels topped off (prior to a storm)
* Reserve gas and diesel containers topped off (prior to a storm)

After the Storm

* Be mindful around high water levels
  + Do not take unnecessary risks
  + Flooding will hide potential hazards
  + Hidden power lines
* Be mindful of utility hazards
  + Live wires on the ground
  + Leaking gas or spilled flammable liquids
  + Release of poisonous gases
  + Damage to building foundation
  + Damage to underground piping
* Be wary of all animals
  + They will be displaced and most likely hungry and scared
  + If rescuing residents with pets, have a family member handle the pet at all times.
* Assume all water you come into contact with is unsanitary
  + Wash or sanitize your hands often
  + Carry latex or nitrile gloves with you at all times