

school operations

by tasbo

Planning For Major Weather Disaster

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Discussion Points



Preparation
before the
storm

During the
Storm

Remediation
& response
after the
storm



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Preparation before the storm



Preparation before the weather event



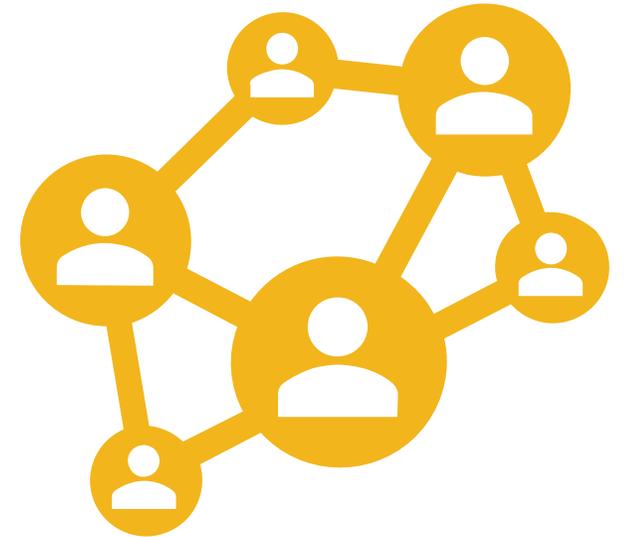
- ❖ Pre-generate work order tracking for all locations
- ❖ Engage contractor to be on stand-by in case you need them
 - Trades, rentals and mitigation
- ❖ Establish personnel assignments & duties
 - Use other departmental staff as needed
- ❖ Establish safety procedures
 - Who makes the call when it's safe.
 - How is that communicated
- ❖ Clear communication channels, identified
 - Establish chain-of-command for reporting
 - What if cell signal is lost
 - Apps such as Remind, GroupMe, Apptegy
 - Digital radios
 - Safe time for meeting and location
- ❖ Be aware of FEMA requirements in case of disaster declaration



Preparation before the weather event



- ❖ Establish Access to all shared drives
 - To store all Documentation, pictures, & videos
- ❖ Establish and verify operation of post weather event command center including supplies
- ❖ Documentation Pre inspection forms (Fast Field Forms)
 - Geo Location
 - Pictures
 - Preexisting conditions
- ❖ Base line assessments
- ❖ Verify documentation damage inspection forms are ready for after storm use

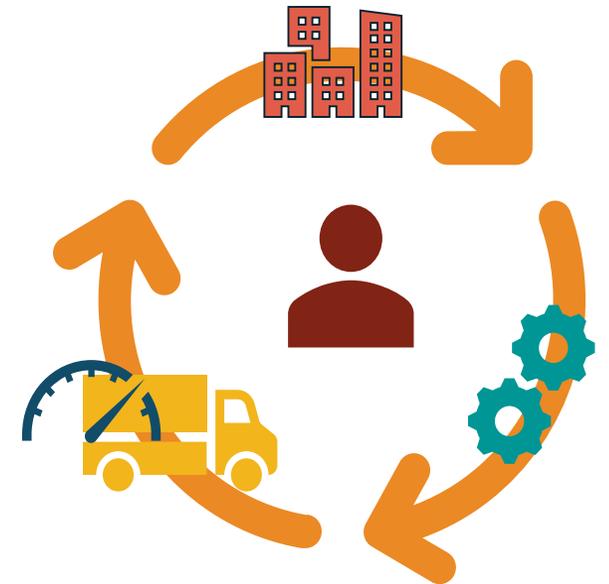


Preparation before the storm

Rain & Wind Event



- ❖ Schedule maintenance / custodian building walks to check for preexisting damage
 - Batten down the hatches
 - Cut down wind screens
 - Move loose items inside
 - Check & clean roof drains
 - Clean storm grates
 - Rake up loose grass clippings & pine needles
- ❖ Fuel up district vehicles and send key personnel home in vehicles
 - Assign staff based on where they live for post storm campus inspections
- ❖ Build stock in warehouse
 - Chain saw blades, gas cans, and check to make sure they are ready.

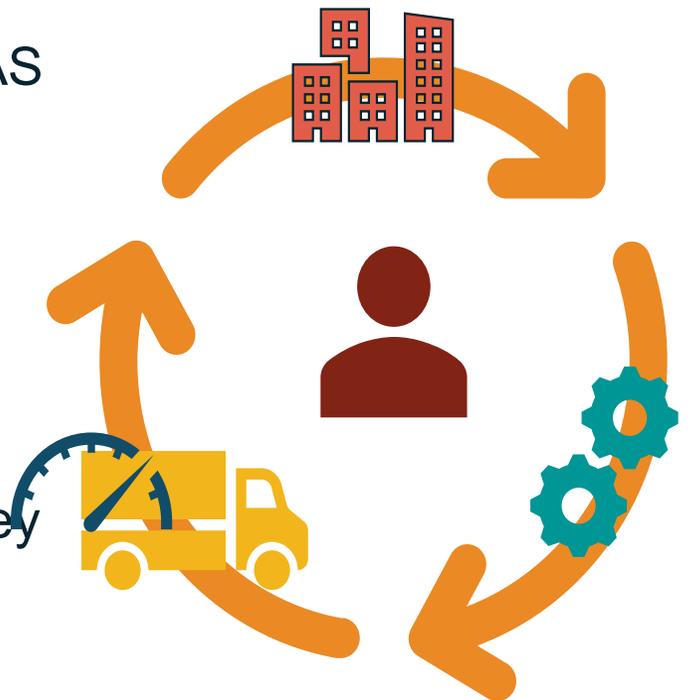


Preparation before the storm

Freezing Weather



- ❖ Schedule maintenance / custodian building walks to check for preexisting damage
 - Backflows are wrapped
 - Hose bibs wrapped
 - Cooling towers drained
 - OA dampers closed off (4CP)
 - Cooling and Hot water loops flowing, moving water.
 - HVAC 24/7 run schedules or BAS freeze protection verification
 - Irrigation turned off & drained
 - Build stock in warehouse for backflow parts, common backflows, and pipe insulation wrap
- ❖ Fuel up district vehicles and send key personnel home in vehicles

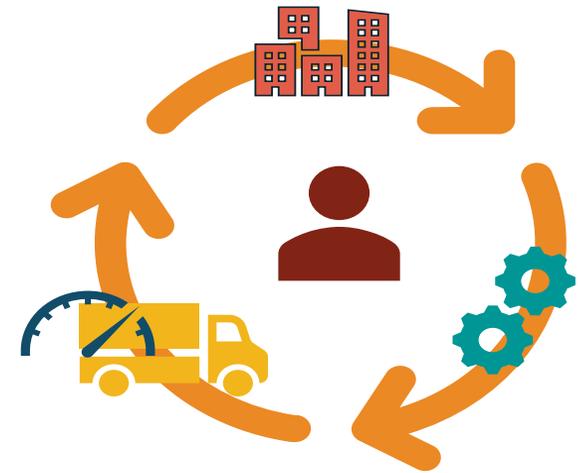


Preparation before the storm

Freezing Weather



❖ Freeze Plan Document



Preparation before the storm Freezing Weather



❖ Freeze Plan Document

Eiland

Before freezing conditions are forecasted all domestic and HVAC piping insulation should be made serviceable.
When freezing temperatures are forecasted, the following procedures are to be followed for the designated temperature ranges:

LEVEL 1: 28 - 32°

Electrical:

- Check each generator run operation
- Antifreeze level and block heater operation.
- Check heat tape on gym canopy water line

Plumbing:

- Check the condition of the insulation of all domestic water.
- Turn off and drain all sprinkler backflows.
- Use a solid metal cage/box and insulate around backflow preventers
- All vacuum breakers need to be drained, insulated & valves turned to a 45 degree angle.
- All vacuum breakers need to be drained, insulated & valves turned to a 45 degree angle.
- Turn off & drain all irrigation systems.
- Check exposed piping for insulation.
- Isulate protruding hose bibs

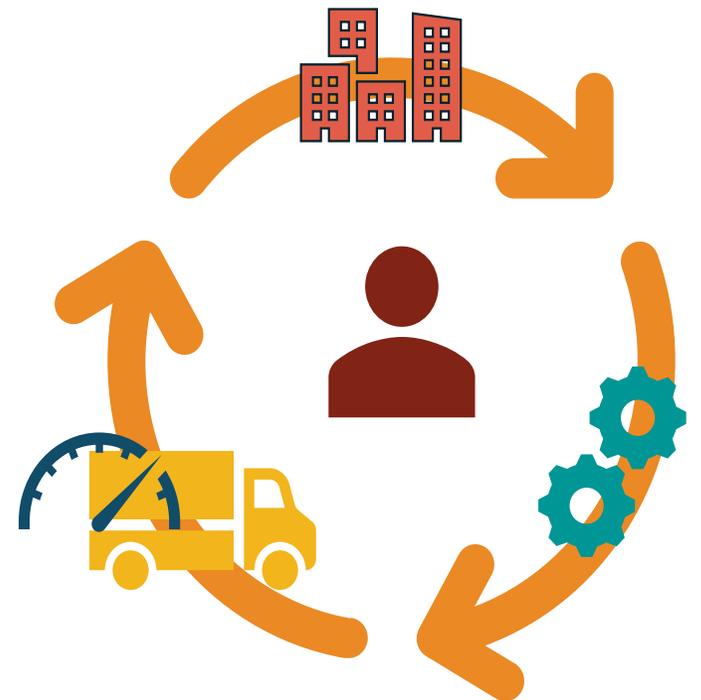
LEVEL 2: 27° & BELOW (Implement both levels)

Plumbing:

- Turn off the water to the outside mop sink and hose bibs, can washer and drain the lines when applicable
- Turn off water to all outside backflow devices and open drain.
- Insulate around backflow preventers.
- Turn off & drain all irrigation systems.
- Check exposed piping for insulation

Signature: _____ Date: _____

NOTES:



Preparation before the storm Freezing Weather



❖ Freeze Plan Document

Hofius

Before freezing conditions are forecasted all domestic and HVAC piping insulation should be made serviceable.
When freezing temperatures are forecasted, the following procedures are to be followed for the designated tempera

LEVEL 1: 28 - 32°

HVAC:

- Check the condition of the insulation of all piping.
- Close all fresh air dampers manually or by DDC operator and verify.
- Ensure the building DDC freeze protection sequence is functional to protect all equipment from freeze If not, notify Coordinator.

LEVEL 2: 27° & BELOW (Implement both levels)

HVAC:

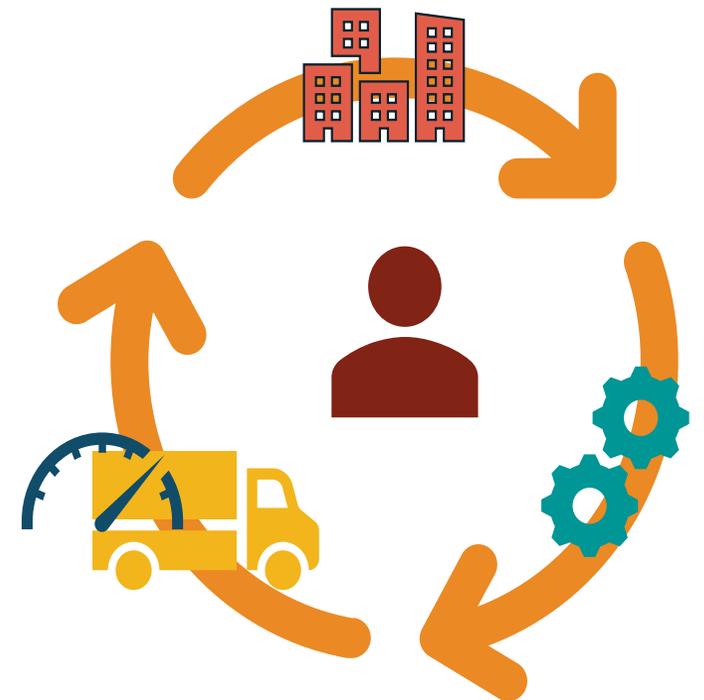
- Turn the chillers to the "off" position.
- Activate all freeze protection devices.
- Disable run operation of chillers and towers, drain outdoor condenser water pumps, and drain above ground cooling tower basin.
- Drain ISO tower makeup. Drain towers. Run 24 hours.
- Program HVAC time clocks to operate 24 hours a day in the Heating mode.
- Make periodic checks for proper operation.
- If DDC freeze protection sequence is not functional to protect all equipment from freeze, proceed to disable; valve out and drain all outdoor chillers and associated pumps as applicable.
- Check kitchen AHU fresh air damper is closed.

HVAC WHEN DIRECTED:

- Isolate tower make-up water lines & drain make-up lines to tower.
- Insure exposed back flow preventer is drained.
- Drain cooling tower pumps & tower basins (where necessary).

Signature: _____ Date: _____

NOTES:



During the Storm



During the Storm



- ❖ Ag barn walks
 - Water off or water on
 - Animals still must eat and drink
 - Water trailer delivery and shut off water to facility
 - Close doors to limit weather exposure where possible
- ❖ Staff assigned to monitor Cameras on a Rotational Basis
- ❖ Monitor the BAS online (if internet works)

Remediation & response after the storm

Remediation & response after the storm



- ❖ Perform walk through damage assessments
- ❖ Documentation damage inspection forms (Fast Field Forms)
 - Geo Location
 - Damage assessment pictures
 - Any Damage or Equipment Information
- ❖ Dispatch Contractors
 - Establish documentation protocols with vendor
 - Not to exceed proposals
- ❖ Internal Labor
 - Log labor hours
 - Equipment usage
 - Transaction vendor purchases
 - Documentation
- ❖ On hand warehouse inventory
- ❖ Log all work on work order database using special purpose codes
- ❖ Complete Post inspection forms for repairs (Fast Field Forms)
 - Geo Location
 - Post pictures
 - Any Completion Information

Remediation & response after the storm



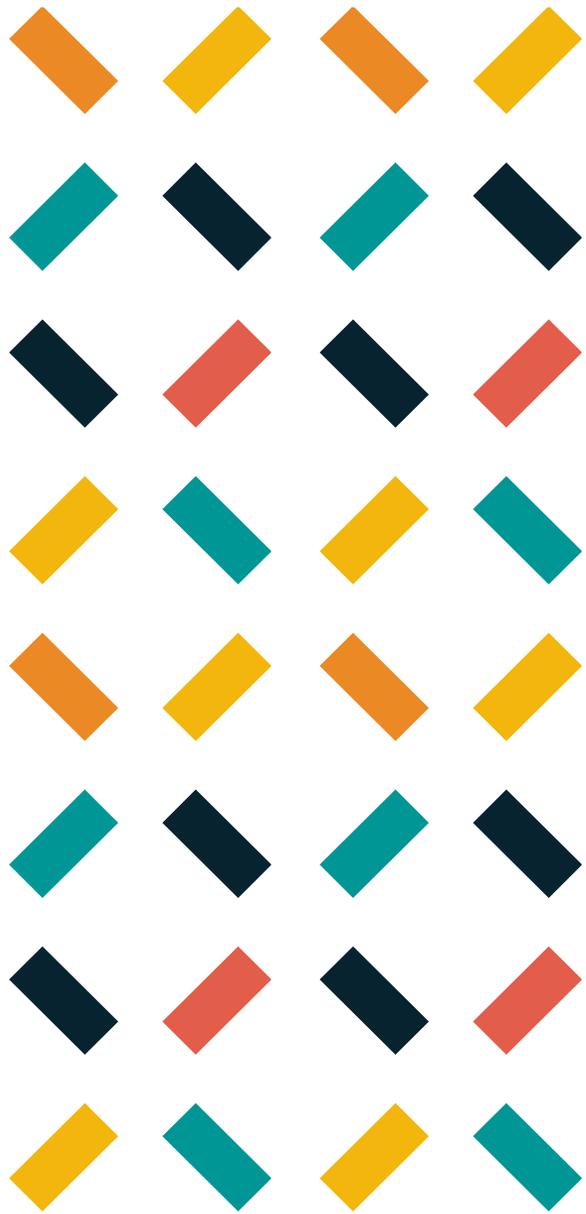
- ❖ Interagency cooperation
- ❖ Establish quality documents, expectations and relationships before the storm to fuel success for all parties after the storm
 - ❖ Power company
 - ❖ County, City or Municipal agencies
 - ❖ FEMA contractors
- ❖ Klein ISD Beryl success stories
- ❖ Conroe ISD Beryl success stories



Lessons Learned & Preparing for the Future

- ❖ After action reviews
- ❖ Review spec. changes
- ❖ Adding small generators
- ❖ Plumbers need to have “pro press guns” and assortment of fittings
- ❖ Hazard pay designation and review
- ❖ Environmentally friendly anti-freeze in exterior “P” traps on roofs & T-buildings
- ❖ Have supply of smoke bombs for detecting sewer gas leaks





Question?