



UNIVERSITY OF
NORTHERN COLORADO

Environmental Health and Safety

Water Intrusion Procedure

March 2023



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TABLE of CONTENTS

- I. Purpose
 - II. Responsibilities
 - III. Prevention
 - IV. Notification
 - V. Procedure for Remediation
 - VI. Documentation and Recordkeeping
 - VII. Area Review
 - VIII. Inventory of Equipment
 - IX. Remediation Contractors
- Appendix A. – Water/Flood Incident Checklist



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Water Intrusion Procedure

I. Purpose

The purpose of this procedure is to be used as a guide for preventing and responding to water incidents at the University of Northern Colorado (UNC). This can include but is not limited to, outside water sources due to building leaks, pipe breaks that can occur from plumbing and sprinkler systems, and HVAC system malfunctions. Insurance companies show that most claims come from liquid damage. This procedure is designed to explain prevention strategies and what to do when water damage occurs.

II. Responsibilities

Environmental Health and Safety (EHS)

1. Respond to all reported water incidents including sewage backflows and assist Facilities Management (FM) with assessing the extent of moisture intrusion/flooding.
2. Respond to complaints made by building occupants and investigate potential water leaks and or causes of complaints.
3. Evaluate areas that could have potential mold growth and provide recommendations for remediation including visual inspection and sampling/testing when needed.
4. Provide training for FM employees and other staff members.
5. Oversee all safety concerns including the distribution of PPE for employees providing clean-up.
6. Contact building occupants that need to be contacted for the incident and contact a contracted water mediation company.
7. Provide status updates on the area that was affected.

Facilities Management

1. Provide prompt clean-up to floods and other water intrusion events using appropriate methods and equipment.
2. Assist in the cleaning and drying process using proper equipment.
3. Assist in evaluating repairs needed for each incident and post-event returning to normal operating conditions.
4. Provide routine maintenance on critical building systems to ensure appropriate conditions to prevent water damage from water infiltration and floods.

III. Prevention

FM staff is the primary preventative measure. Below are the tasks for each department.

HVAC Plumbing

1. Maintaining HVAC units for proper working conditions and do periodic checks and regularly scheduled maintenance.
2. Identifying and repairing roof leaks, window leaks, or door leaks.
3. Keeping rain gutters and floor drains clear of debris to prevent water backup and flooding.
4. Repairing plumbing fixtures, clogged toilets, or drains that are leaking.

Grounds Maintenance

1. Grounds staff should monitor for leaking pipes, broken sprinklers, puddling against buildings, and overly watered ground.
2. Maintain sprinklers to spray away from buildings.
3. Keep root systems from penetrating building structures and sprinkler systems.
4. Keep drains, gutters, and drainage ways clear.
5. Maintain stormwater drains.
6. Maintain watering cycles to prevent oversaturation of the ground.

Custodial Staff

1. Identify leaky plumbing and plugged toilets and contact FM Service Center to create a work order.
2. Identify water intrusion or condensation issues and create a work order.

IV. Notification

During regular business hours 7 AM to 5 PM, FM Service Center will be notified of any leaks or floods. The service center will create a work order and assign departments, as necessary. EHS can be contacted to help evaluate and mitigate the water incident. If a water intrusion occurs after business hours in a resident's hall, the resident should contact the Housing front desk or UNCPD. If a water event occurs in other facilities, the individual shall contact UNCPD for assistance.

V. Procedure for Remediation

Water remediation within the first 24-48 hours is critical to preventing mold growth. The following steps are a guide to help minimize mold growth.

1. Identify the source of the moisture
 - a. When a water leak is reported the first step should be to identify where the water is coming from and identify what type of incident it is. If a sewage leak occurs, appropriate PPE shall be used before remediation work begins.

2. Prevent further moisture intrusion, including halting further damages, by repairing the leak or shutting down the system.
3. Retain any evidence
4. Identify all impacted areas
5. Create a work order if during hours of operation. If after hours, this step will occur the next business day.
6. Contact EHS
 - a. EHS will contact additional staff members as needed.
 - b. EHS will contact a water remediation company.
 - c. Conduct an assessment and document all water damage areas, building materials, and furnishing. Pay special attention to areas where moisture could be trapped in or under cabinets, furniture, and furnishings.
 - d. Review all high-hazard areas (electrical rooms, IMT rooms, chemical storage areas).
 - e. If not already performed, contact FM Service Center to have appropriate departments respond to an incident (custodial, plumbing, HVAC, etc.). to provide clean-up and shutdown of systems.
 - f. Contact Purchasing Department - issue emergency Purchase Order
 - g. Issue Fire Impairment permit if needed
7. Notify housing if the incident is in a residence hall.
8. Notify occupants of a building (Building Coordinator).
9. Collect photos, timeline of the event, and any other necessary evidence.
10. Review the need to temporarily relocate occupants/residents.
11. Begin drying process of wet areas (fans, dehumidifiers, contractor if necessary)
12. EHS will provide monitoring. This includes:
 - Checking damaged areas after an event takes place to monitor the drying process
 - Monitor any other issues that arise
 - Develop a restoration plan
 - Investigate an incident (if needed)
 - Provide email updates including impacted areas and current and future activities on site.
 - Inform FM of repairs needed to the facility
 - Inform occupants when they can move back into an area
13. Once dry, facilities will provide repairs to the building or area affected.
14. If an insurance report is required EHS will provide appropriate information including charge-out times and materials for repairs. Final cost reports and insurance claims will be submitted.

VI. Documentation and Record-Keeping

Documentation of damages will be maintained by EHS and FM for each event. This includes but is not limited to:

1. Damage to student property
2. Damage to university property
3. Maintain evidence (if found)

4. Provide charge-out times for each employee working on the incident, including student employees
5. Provide the cost of materials used for repairs
6. Maintain invoices for repairs and water remediation
7. Complete and file the Incident Report (UNCPD, EHS)

VII. Area Review

EHS will meet with the contractor to review the areas continuously until the area becomes dry. This time frame can vary depending on the availability of contractors and availability of EHS personnel. During this review, EHS personnel will make notes of any additional damage and work with contractors to provide more fans if the area is not dry or remove fans if the area becomes dry.

EHS will send out email updates to staff members involved in the incident. Each email will have an update with room numbers, the number and type of equipment placed, and any damages that are in that area. In addition to this, the room number will be highlighted with a color corresponding to the severity of the moisture damage. A high amount of moisture and damage will be highlighted in **red**, medium amounts of moisture and damage will be **yellow**, and when all fans are removed the room number will not be highlighted. If any shop needs to be added to do work in the area the shop name will be underlined and highlighted with the color **teal**. Once all rooms are clear of moisture EHS will no longer provide updates on room status. Below is an example of an update.

3/27/2023 Update

150 – 5 fans placed and 1 dehumidifier; Damage to paint on the walls and the floor

149 – 3 fans placed; paint bubbles present on walls

148- All fans removed

Trades – Repair paint bubbles located in room 149.

VIII. Inventory of Equipment

The following is equipment that the University of Northern Colorado has on hand for water mitigation.

Parsons Hall:

Flood pumps – 3

Wet/dry vacuums – 3

Floor fans – 20

Dehumidifiers – 3

South/McKee/Kepner (each):

Wet/Dry Vacuums – 1

Floor fans – 3

IX. Remediation Contractors

Servpro – Luke McGuffey

Day Phone – (970) 353-1388

Emergency Phone – (970) 590-2848

Luke@servpro10134.com

All Phase Restoration – Lucas Blackman

Day Phone – (970) 685-0828

Emergency Phone – (970) 213-1900

lblackman@aprestoration.com

HRS Restoration Services – Donna Seward

Day Phone – (303) 406-1911

Emergency Phone – (303) 459-7953

donnaseward@hrsdr.com



WATER / FLOOD INCIDENT CHECKLIST

Name(s)	Date of Incident	Time of Incident
Location of Incident		
Departments Assisting	Outside Resources Assisting	

Completed	Task	Notes
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Secure Source – Ensure Safety of Area	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Notify Custodial and other Depts. (clean up)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Contact water restoration contractor (if needed)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Notify Housing (if Residence Hall) or notify Building Coordinator (non-resident facility)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Notify Blaine (or Dale) (Kirk/Glenn to perform this if available)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Notify Media Relations (Deanna) – PIO (If Deanna is not available call Sydney)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	EHS – Issue Fire Impairment Permit (if needed)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Temporary relocation of occupants	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Asbestos / Lead Present	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Identify impacted areas: <ul style="list-style-type: none"> ○ Photos, Drawings, Damage Inventory ○ Restoration Equipment Inventory ○ Water Restoration Template (Spreadsheet) 	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Investigate / Retain all evidence / Hold onto the damaged part	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Implement Temporary Services (as needed)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Notify Insurance (Flood and Peterson); if the estimate is greater than \$50,000)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Issue tracking work order – FM Support Services	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Issue Emergency PO – Contact Curtis Benton Issue Project Authorization – Kirk (if needed)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Log timeline of event / Log hours of operation	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Develop restoration plan and schedule (EHS / Project Manager)	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Assign restoration staff and/or contractors	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	On-site coordination meetings (as needed) <ul style="list-style-type: none"> ○ Moisture testing ○ Add/remove equipment 	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Daily email updates (keep all emails on one chain) <ul style="list-style-type: none"> ○ Impacted areas, Activities on site ○ Daily Drawings / Inventory ○ Scheduling – contact individuals 	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Collect Invoices, work order reports, and labor charges for insurance or resident claim	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Final cost reports and insurance claims	
<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Close work order and/or project	