This document provides the framework and process for responding to a flooding event on campus. This framework may also be used for other events such as fires.

Yale University

Flood Response Plan

July 2016

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Flood Response Plan

Introduction

Yale University is committed to providing a safe and healthy place of work and study. To that end, it is committed to preventing floods and water intrusion events that themselves can damage sensitive equipment and irreplaceable materials as well as create conditions suitable for molds and other microorganisms to grow. While New Haven, West Haven or Orange, CT, are not geographically located in a region of excessive mold susceptibility, high humidity conditions can occur through a variety of weather, building, and event conditions.

Successful flood responses and mold mitigation require the close cooperative interactions of many individuals and departments. They begin with prompt recognition of a problem, timely notifications to appropriate responders, corrective actions, and follow-up. Typically, physical plant, custodial, environmental health and safety, risk management, emergency management, and project management are involved, along with individuals from the affected location or department.

Purpose

The purpose of this document is to provide those with responsibilities for flood and mold prevention and response with a ready and easily understandable source of information about these kinds of events and the steps that are needed to help prevent them as well as successfully respond to them. This document contains a contact list of key facility and emergency response personnel, generalized emergency procedures, prospective pre-event planning opportunities, and pre-approved contractors. As this document is meant to be a "living" one, it will be reviewed by the flood and mold response planning committee in the Fall before the winter's pipe freezing season. A review of the plan will occur based on the lessons learned through the Winter in preparations for the Spring and Summer flood season.

Situation Overview

Floods are water release or intrusion events that result in the presence of water in unwanted locations. They include all forms of water: "clean" potable water, drain waste vent wastes ("sewage"), steam condensate, high ambient humidity, process chilled water, and rain, ground, and surface run-off water. The uncontrolled presence of water can create a range of potential physical hazards, from minor slips or trips from unseen submerged objects, to the short-circuiting of electrical devices and equipment with the potential for electrocution. Water can cause serious damages to porous and non-porous objects, equipment, and building materials. It can also dissolve or otherwise transport contaminants from one location to another, whether naturally occurring or from laboratory or other operations. The water source itself can be potentially harmful, especially if it is sewage-related. Floods are disruptive to all built environments, but are especially damaging in buildings with residential, healthcare, laboratory, library, and museum occupancies.

Regardless of source, prolonged moisture conditions can create an environment suitable for the rapid growth of microorganisms, most commonly in the form of molds and mildews. If these conditions persist long enough, other organisms may develop, bringing even more extensive

problems (e.g., termites, mosquitoes). The severity, extent, and duration of such impacts are largely based upon the extent of the water intrusion and the speed with which water is removed.

This plan discusses the response procedures for:

- Academic/Core Facilities – Any building or property owned and occupied solely by Yale and used in furtherance of Yale's academic mission. Users include Central Campus, Med Campus, West Campus and Administrative Units. Management of these properties is the responsibility of the Office of Facilities and are serviced by Facilities employees and/or outside vendors.
- University Properties – Commercial Property owned by Yale where Yale is Landlord and buildings are occupied by third-party tenants. Buildings may also be occupied by Yale units but not exclusively. Management of these properties is the responsibility of the Office of University Properties. Operationally, these buildings are serviced by outside property management groups including Elm Campus Partners, Winstanley Property Management and Konover.
- Leased Properties – Commercial properties owned by third-parties and occupied in part or in whole by Yale as Tenant. Management of the buildings is the responsibility of the Landlord. Management of the interior of Yale occupied spaces is handled by Tenant Services. Tenant Services engages outside vendors to service Yale spaces in these buildings.
- Mixed Use Buildings. Buildings that have more than one of the above designations, most commonly, academic buildings with a retail commercial component on the street level. Management of the base buildings is handled by the Office of Facilities. Management of the third party tenant space is handled by University Properties through its outside vendors.

In order to frame the financial impact, from flooding, the following are an average and year-by-year property claims and dollars related to water damage at Yale. Water related issues have a significant impact on our operations and quality of life. Through greater awareness, training and teamwork hopefully the negative impact of flooding can be reduced.

Averages per year: (EXCLUDING FY 16)

- Plumbing pipe flooding 13 incidents $172,415
- Storm caused flooding 10 incidents $690,126
- HVAC caused flooding 5 incidents $73,948
- Fire System caused flooding 5 incidents $658,447
  - Totals 33 incidents $1,594,936

Actual numbers by year:

- FY 13
  - Plumbing pipe flooding 10 incidents $11,857
  - Storm caused flooding 10 incidents $1,848,084
  - HVAC caused flooding 5 incidents $29,964
  - Fire System caused flooding 2 incidents $6,190
    - Totals 27 incidents $1,896,095
- FY 14
  - Plumbing pipe flooding 17 incidents $311,407
  - Storm caused flooding 11 incidents $68,264
  - HVAC caused flooding 5 incidents $131,163
  - Fire System caused flooding 4 incidents $1,002,660

- Totals 37 incidents $1,513,494
- FY 15
  - Plumbing pipe flooding 13 incidents $193,982
  - Storm caused flooding 10 incidents $154,031
  - HVAC caused flooding 2 incidents $60,719
  - Fire System caused flooding 8 incidents $996,493
  - Totals 33 incidents $1,405,225
- FY 16 (cost are still estimates)
  - Plumbing pipe flooding 6 incidents $38,000
  - Storm caused flooding 0 incidents $0
  - HVAC caused flooding 3 incidents $25,000
  - Fire System caused flooding 3 incidents $125,000
  - Totals 12 incidents $188,000

Concept of Operations

Levels of Response:

The levels of response will be classified by the size of the affected area (small, medium, large, catastrophic) as defined below or by type of work that is occurring in the affected area. The type work will classify a building by Class 1, 2 or 3 also defined below. In some instances a small flood may occur that would normally require a minimal response but because the flood is in a Class 1 building, the response may be greater and possibly equal to a moderate or large response.

Small Flood – Focused / contained flood affecting less than 300 sq. ft. feet limited to two or three rooms/offices or areas. Drywall cutting or demolition may not be required. Facilities Operations will contact either Facilities Superintendent and Custodial Services (owned properties) or Tenant Services (leased properties) who will perform the cleanup and repairs using ordinary cleaning tools and equipment. Minor repairs might be required. The response team will facilitate or perform mitigation of any issues for occupants. Expected clean up time is less than 4 hours. Drying time between 15-24 hours.

Medium Flood – More widespread but still shallow or limited in area affecting flooring, including carpets, or drywall damage. Water did not transfer through floors. Impact area over 300 sq. ft. or deep enough to floors and wallboard. Facilities Operations remains the primary responder activating internal and possibly some external resources. Clean-up and repairs can be handled by local assets or small service provider using local equipment or service provider equipment unless the building is identified as CLASS 1.

Large Flood- Multi-room, multi-floors, that significantly impacts one or many buildings. Indicators include affecting a number of floors in one building, the relocation of offices, people, functions, and critical functions, or the interruption and inability of these functions to continue operating. A service provider should handle a large flood.

Catastrophic Flood – Extensive and deep flooding across many areas. This level of flooding may be caused by a hurricane, heavy and persistent or flash rainstorm, or a sudden and significant snowmelt. Facilities Operations, Security, EHS and Risk Management would be primary responders to this event, activating all needed resources within each department. Coordination occurs through the Emergency Operations Center (EOC) and will include Police, Lead Administrators, Operations Management, and Risk Management. Response Teams (RT) will sweep each building to determine the impact of flooding damages. After an initial assessment, a detailed damage assessment will be conducted. The Finance and Administration group in the EOC will immediately begin working with affected units to mitigate the impact on business continuity. Affected buildings which may pose hazard or significant disruption to normal operations may be temporarily closed or "red lighted" to restrict access, until it is deemed safe for occupancy.

a. Building/Facilities Classifications:
    i. Class 1 Building- Public Safety, YARC, Clinical/Patient Care Space, High Hazard, Lab Research, Cultural Properties, Data Center, specialized equipment, utilities.
    ii. Class 2 Building- Housing, Day Care, Dining
    iii. Class 3 Building- Classroom, general office building

Initial Response

***Initial Response*: defined as the first steps taken by the Response Team (RT) to determine the impact of an incident.**

The Yale Emergency Operations Plan defines a Response Team (RT) as follows:

Response Team

A Response Team (RT) is the group of departments with responsibility to respond to flood or other disaster and together they collaborate to bring the locations back to as normal operations as possible. In general, these departments are a subset of the Yale Emergency Operations Team and they help coordinate activities and resources that support the response efforts and also may coordinate with agencies not affiliated with Yale. The Response Team may be activated in conjunction with the EOC. The Response Team will identify a Person-in-charge to lead the team. A Response Team (RT) is not the incident command or policy group. Each member has specific duties as determined by their department and identified in this plan.

The Response Team's primary functions are to:

- Support University, departmental, and the IC priorities
- Facilitate logistics support and resource tracking
- Allocate resources according to University and IC priorities
- Coordinate incident related information
- Report daily activities, or as necessary to affected department, other members of the RT and to the EOT/EOC

- Help mitigate business continuity issues

Note: Response Team (RT) structure, coordination and communications (see table of organization)

Regardless of location, occupants should report incidents to Facilities Operations. IN CASE OF IMMEDIATE DANGER TO LIFE OR LIMB, EVACUATE THE PREMISES AND CALL 911.

If the incident is related to a fire alarm or the release of water through a sprinkler head, the lead response agency according to CT State Statue is the Fire Department as stated in **Chapter 104 Municipal Police and Fire Protection Sec. 7-313e.**

If the event is a criminal or a police matter, the New Haven, Orange, West Haven or Yale Police Department will act as the lead response agency. The NH, Orange or West Haven Fire Departments will transition control to Yale's Office of Fire Code Compliance Services (Y-FCCS). Once the water is contained, YFCC will transition command to the Facility Manager of that facility (Superintendent for owned space, Tenant services for Leased Properties, Property Manager for University Properties).

In response to non-fire alarm or sprinkler head floods, the building use will determine the "Person in Charge" of the initial response and small and moderate floods (see workflow). If the flood is large or catastrophic, the command of the incident is transitioned to the Director of Facilities for owned spaces and the Associate Director of Leasing for Leased Properties. Other functions that participate in the initial response are Physical Plant and Facilities Services and/or Tenant Services. The initial responders will determine the level of response (small, medium, large, catastrophic and/or facilities classification) based on the damage assessment. The damage assessment (DA) will be conducted through VEOCI and will determine if the cleanup will be in-house or by an external contractor. Facilities Operations Customer Services Center will be notified by the initial responders of the DA and based on that assessment they will call out the appropriate resource.

The process for responding to mixed-use space managed by Elm Campus partners is externally managed by Elm Campus Partners.

**Affected departments and building occupants will receive *Attachment H* during the initial response.

Critical decisions:

1) Person in Charge MUST be identified to RT and whoever is conducting the clean-up
2) Damage Assessment and status of initial response MUST be communicated to FacOps. FacOps will make the necessary notifications to include external clean-up companies if necessary.

Response

***Response:* defined as the actions taken by the response team to mitigate the consequences of the incident.**

University owned buildings:

The Facilities Superintendents that oversees the day to day of the facility or the Facilities Operations Manager on-call is the Person-in-Charge of the response. As stated above, if the incident is large or catastrophic, the Director of Facilities Operations will be the Person-in-Charge of the incident although each Superintendent will maintain supervision of their building. For large or catastrophic events, the Office of Emergency Management will support the Director of Facilities Operations with coordination, communications and maintaining situational awareness. OEM or the University Crisis Commander may also activate the Yale Emergency Operations Center (EOC)

Regardless of the size of the flood, Facilities, Environmental Health and Safety (EHS) and Risk Management (RM) and Office of Emergency Management will be notified of the flood.

If the flood affects a Class 1 building (as defined above) and the damage cannot be repaired by Physical Plant or the cleanup company, then Project Management (PM) will be notified.

During large and catastrophic incidents, EHS, RM, PM and OEM will all be notified. During large and catastrophic floods, the Yale Emergency Operations Team will be notified.

In all cases, Facilities Operations will maintain control of the incident and will ensure coordination with all university responders and business owner. Once the team is formed, the team will determine best method of coordination and communications.

Elm Campus Properties (Yale commercial landlord):

University Properties initial call to First Responders and Elm Campus Partners.

Yale Commercial Properties are externally managed by Elm Campus Partners who have a 24/7/365 manned answering service- 203-776-4466. Calls inadvertently received by FACOPS should be directed to First Responders and ECP. ECP will manage the response with own resources.

Yale as a tenant (tenant services)

Initial calls go to FACOPS and are triaged to First Responders (FCC, EHS, RM) and Tenant Service. Tenant Services are the "Person-in-charge" and will determine who else needs to be at the table for response and recovery.

Mixed Use

Initial calls to go to FACOPS and to be triaged to First Responders and building management as outlined in Mixed Use building spreadsheet. Attachment#

In **leased space** the person in charge will be Associate Director of Leasing for Tenant Services or designee

Regardless of the size of the flood, Facilities, Environmental Health and Safety (EHS), and Risk Management (RM) will be notified of the flood.

If the flood affects a Class 1 building (as defined above) and then it is determined that the flood has affected a class 1 space, Project Management (PM) and the Office of Emergency Management (OEM) will be notified.

During large and catastrophic incidents, EHS, RM, University Properties, and OEM will all be notified. During large and catastrophic floods, the Yale Emergency Operations Team will be notified.

In all cases, Facilities Operations will maintain control of the incident and will ensure coordination with all university responders and business owner. Once the team is formed, the team will determine best method of coordination and communications.

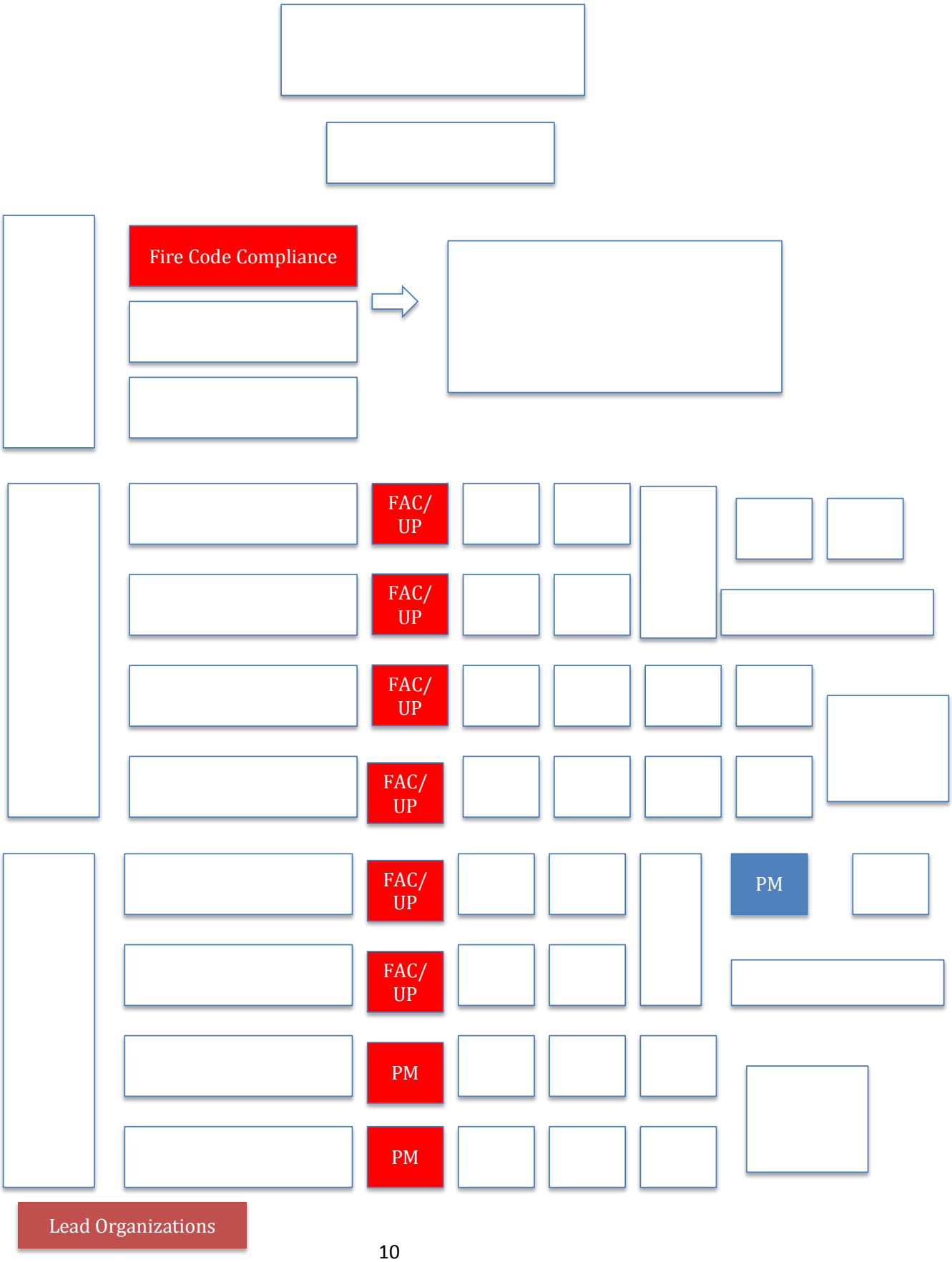
Recovery: defined as- cleanup has been completed and the restoration of the affected area begins.

Yale Owned buildings: After the incident has been cleaned up, Facilities Operations transitions control to Project Management if the affected area requires restoration. EHS and RM as still involved in this phase of the response. OEM is involved in large and catastrophic events.

Buildings where Yale is a tenant: the party will be responsible for the cleanup and recovery of the affected space, will determined by cause.

Elm Campus Properties (Yale commercial landlord): In most cases, Elm Campus Partners will be responsible for the recovery and restoration of the space

Mixed use: In most cases, Yale Facilities or University Properties will be responsible for the recovery and restoration of the space.


Fire Code Compliance
FAC/ UP
FAC/ UP
FAC/ UP
FAC/ UP
FAC/ UP
FAC/ UP
PM
PM
PM
Lead Organizations

Incident coordination

The initial call will come in through Facilities Operations Customer Service. The Facilities Operations Customer Service Center (FAC OPS) will call out the initial facilities response team (RT). RM and EHS will also be notified. The Fire Code or Facilities person-in-charge will advise Facilities Operations Customer Services Center (FacOps) of the level of damage and if outside support is needed for cleanup. FacOps will call out appropriate clean up company. The person-in-charge will advise FacOps when email updates and other communications are needed to a broader group.

Once the damage assessment and level of response has been established, the person in charge will coordinate with the additional responders. The RT will decide the level of coordination and communications that will work for the team- i.e. will they coordinate via e-mail, VEOCI, daily briefings etc. This level of coordination will also occur in the recovery phase.

Initial Notification

FACOPS Service Center - (Initial) Flood Service Response Procedure

Service Request:

1. Service call received through:
   - Phone
   - Radio
2. Specialists capture as much information on the problem as possible:
   - Location
   - How much water is coming out?
     - A little or gallons?
   - Is the source identified?
     - Examples: *Leak coming from the roof, wall, pipe, equipment, sewage?*
   - Is it isolated to one area, or more?
   - Is it spreading?
     - Examples: *hallway, common areas, to lower levels.*
   - Will water pickup require a mop, wet vac, or more?

Response Procedures

1. Dispatch service responders:
   - Contractors
     - Note: 1st level of response for Leased Properties
   - Custodial, including superintendent
   - Plumbing, including supervisor
   - Other service providers
   - EHS when required
     - Lab
     - Brown water
     - Etc.

2. Other departments that may be called include:
    - Elm Campus Partners
    - Emergency Management
    - Leased Properties
    - University Properties
    - Risk Management
3. Emergency notification sent, with updates as required.
4. Depending on the scale of the flooding:
    - Service responders may be called in for additional support
        - Class 1 building
        - Class 2 building
        - Example: for water pickup, e.g., drain vendor, flood restoration, etc.
    - FACOPS Service Center will use FEC to call in a vendor

5. Superintendent takes the lead on coordinating cleanup and restorative action.
    - Work with various support groups
        - Physical Plant
        - Planning & Project Management
        - Risk Management
        - Other
6. Superintendent keeps customer informed

Damage Assessment Procedures

The initials damage assessment will be conducted by the Person in Charge of the scene in collaboration with EHS and RM. For University owned properties it will be the Facilities Superintendent, for University Properties it will be Tenant Services and for Elm Campus properties it will be Elm Campus Partners. A damage assessment sheet is attachment A. The Person in Charge will then call FACOPS with damage assessment and advise them to include:

i. Level of damage
ii. If the affected space is a Class 1 space
iii. Recommend a plan for cleaning the space (internal or external assets)
iv. Advise FAC OPS to communicate updated information to Response Team and Administration

Emergency Response Procedures

<u>Floods and Water Intrusion Events</u>

Most of the larger flood events on campus originate from fresh water supply line breaks, ground/rainwater infiltration, roof leaks, and drain leaks. Most are quickly identified and responded to by Facilities Operations and Custodial Services. A small subset of flood events involve contamination by laboratory materials, and require additional assessment prior to finalizing cleanup. EHS will need to be involved in assessing potential hazards from contaminated flood water, and ensuring that flooded areas suffer no long-term health or safety problems (e.g., mold growth, residual hazardous materials contamination).

1. Upon identification of a flood or water intrusion event, individuals should immediately contact Facilities Operations Customer Service Center for assistance. If the event poses

an imminent risk to life or health, the Yale Police or University Security department should be notified for emergency assistance.

2. Responders should identify the potential source of the flood/intruding water and work to safely stop active flooding. It is important to determine the source of the water, i.e. whether it is clean water, sewage or other drain-waste-vent line effluent, rainwater, bulk chemical from equipment (e.g., film processor), etc.

3. Evaluate liquid migration route and determine whether there was any potential for contamination along its path (e.g., direct travel across/through hazmat storage or use areas).

4. Identify potential physical dangers (e.g., soggy/falling ceiling tiles, electrical hazards, chemical reactions) and safely attend to these, bringing in the appropriate departments/staff as necessary.

5. For floods overhead, cover valuable equipment, objects, and supplies with plastic sheeting, if safely possible.

6. Ensure that Facilities Operations Customer Service Center has been notified, who in turn will summon necessary contractors, custodial and specialized trades, as needed, e.g., plumbers, HVAC, electricians, structural mechanics. Floods of low hazard material or relatively small to moderate scale can generally be managed in-house; see Appendix C for a listing of flood response supplies and equipment available through Custodial. Larger events may require additional contracted services; see Appendix D for pre-qualified vendors.

7. Person-in-charge also ensure that occupant representatives have been notified of the event, typically the Principal Investigator, area manager, or business manager/administrator. Many areas of campus are considered “Special Locations”. These locations are considered Class 1 and 2 buildings. A Class 1 or 2 building representatives should be notified and if possible, be on–scene before the next phase of active cleanup. The Person-in-charge should let them know what the cleanup and repair plan is, and how long the occupants will be displaced. Share with them attachment G: “note to building occupants”.

8. Most flood liquids can be efficiently cleaned up with wet vacuums and absorbent materials. Unless verified as clean water by EHS, cleanup crew should always wear appropriate PPE’s (safety glasses, goggles, or face shield), impermeable gloves, shoe covers or impermeable boots, and additional external garments as needed to minimize contact with the liquid.

9. Clean-up crews should always wear appropriate PPE’s when responding to a flood. Notify EHS immediately, they will assess the area for contaminated water, waste water disposal and next steps in the clean-up process. Clean-up crews should never leave the affected area until cleared by EHS. Special Laboratory access and response is found on page 42.

10. Soap or detergent and water are good for final cleaning of most floods; Virex 256, 10% bleach or other disinfectant may also be valuable for those involving possible biological

materials and sewage. See Appendix E for additional information on disinfectants and cleansers.

11. Prompt removal of water and thorough area drying is essential to avoid mold/mildew growth and minimize long-term damage to floors, carpets, wallboard, and other building materials. Use portable fans, dehumidifiers, increase area ventilation if possible, and consider special cleansers and deodorants. Additional specialized cleaning (e.g., water extraction from carpets and rugs, HEPA vacuuming, steam cleaning of carpeting and rugs) may also be beneficial. Post Attachment G: "Note to building occupant" throughout the affected area.

12. As soon as possible, the applicable "Person in Charge" should ascertain the level of damage to building surfaces and materials, and determine if replacement or repairs are immediately needed. Removal and replacement of damaged surfaces and materials can be minimized by drying down the affected area within 24 – 48 hours, depending upon the time of year and ambient humidity levels. Failure to effectively dry areas down within these timeframes can lead to mold growth and material damages that require full replacement. It is especially important to remove water thoroughly from carpeting within this timeframe, because mold will begin to form readily on the backing. If this is not possible or if the carpeting and/ or backing is damaged from mold, then it may need to be removed and replaced. Contact EHS before removing carpeting to determine whether there is any asbestos containing material in the mastic or floor tiles below. Note that clinical/healthcare occupancy areas generally need more extended and immediate removal of damaged/affected areas.

13. Ceiling tiles that have been damaged by water will normally need to be discarded and replaced, because these tiles will normally stain after water damage and lose integrity and strength.

14. Revisit the area in the near future to confirm the effectiveness of cleanup and drying steps. Contact EHS if additional monitoring or verification testing is needed as well.

15. Where building materials and surfaces require removal or more aggressive cleaning, it is essential to communicate the work needs with occupants and provide temporary relocation. Standard Yale dust control practices should be implemented, and efforts made to protect all undamaged surfaces, objects and surrounding areas using the principal of containment, and negative exhaust pressure.

<u>Mold Impacted Spaces</u>

Mold, mildew, and other microorganisms will grow on continuously wet or damp surfaces, most often those consisting of porous organic material such as sheetrock wall board, plaster, particle board, and carpeting. They can also colonize in HVAC air conditioning drain pans, insulation, and ceiling tiles. While molds are ubiquitous in the outdoor environment, indoors their visible appearance generally indicates problems with moisture and water. Some molds also produce toxins and allergens that can trigger allergic and hypersensitivity reactions or asthma attacks in some people. These symptoms can range from eye and respiratory irritation and allergic reactions to asthma and other potentially serious respiratory illnesses.

The prevention of mold growth and the immediate remediation of mold growth is necessary to prevent building occupants from experiencing these potentially serious health effects. Since mold requires water to grow, it is important to prevent floods and moisture indoors. If floods or moisture problems occur, prompt attention to finding and repairing the source of the water and rapid removal and drying of affected surfaces will help keep mold growth to a minimum.

a. Identify the potential source of the moisture and ensure that active steps are taken to stop it and make any necessary corrective repairs.

b. If mold or mildew does develop, determine whether the impacted area is small or large. For the purposes of this program, a "small" area is one of about 10 square feet or less; a "large" area is greater than about 10 square feet. Small mold growths in discrete areas (small patch on wall, area directly below a dripping pipe, etc.) may be remediated simply by disinfecting the surface with a mold-killing disinfectant, waiting for the contact time to elapse, and wiping it clean.

c. For larger mold impacts or materials that are more invasively damaged by mold, contact Facilities Operations Customer Service Center or EHS to assist in decisions about the scope of remedial work needed. It is essential that Physical Plant also be notified if the work will require removal or replacement of building materials such as ceiling tiles, wall boards, flooring, or other building components that need to be opened, removed, disposed of, or replaced. Those responding should wear basic personal protective equipment, and evaluate need for barrier protection/containment and negative exhaust.

    a. For large areas requiring a more comprehensive mold remediation, consult EHS. The scope of work will be developed by EHS in consultation with one or more of the following, as applicable: Physical Plant, Custodial Services, Yale Project Management, outside service providers. This work may require the temporary relocation of occupants, installation of filtered exhaust air to keep the space under negative pressure, erection of plastic barriers at doors, and either covering the diffusers or temporarily shutting down the supply and exhaust air systems. Ensure that there is sufficient fresh air ventilation in the area if large scale surface disinfection is needed.

d. Floods and mold growth can have more serious impacts in many of the special locations and departments due to the nature and sensitivity of their holdings, as well as the potential for damage during cleaning and abatement. Except for initial emergency response and medical triage, cleanup and abatement efforts in these locations require direct consultation with professional conservation and care staff.

b. Business Continuity
   During a flood or water-intrusion events minimizing the impact and limiting any disruption to the work or operations located in the affected area should be a high priority. Work with the occupants to address any disruption and evaluate any relocations needs. In some cases the occupant may choose to suspend their operations or close their offices if the cleanup and restoration will be done quickly. In other cases work cannot stop and a relocation plan will need to be developed. Resources to assist with business continuity are available through the Office of Emergency Management.

Special attention should be given to departments that preform critical or high priority functions such as those that involve life, health, safety, or security activities.

Recovery

Recovery – This is defined as the phase that helps those affected by the incident begin the process of getting back to "normal" operations. The recovery phase begins when the incident has been stabilized and the event is no longer progressing or getting worse. Depending on the level of damage, the recovery phase may take as little as three days (for required drying time) or three weeks (for required reconstruction). For a small or moderate event where only the three days of drying time is required to bring the location back to "normal", then the "person in charge" of the recovery will be the Superintendent of the building or designee.

For incidents that require sheetrock demolition and reconstruction, or more, the "person in charge" will be identified by Facilities Project Management. Project Management will lead the process of reconstruction and will develop a construction plan and approximate timeline for the affected departments. This timeline will be provided to the occupant as soon as possible, usually within 3-4 days. The level of business interruption will guide the development or activation of the business continuity plan. The Office of Emergency Management, Business Continuity Manager will guide the department through this process in order to minimize the impact on the department's essential functions. Other activities that may be required during this phase may include relocating affected departments to alternative space, communications with campus partners, clients, visitors and guests, financial and other types of reporting, and conducting after-action reviews. Once the reconstruction is completed, the department(s) will be able to move back in only after the area has been inspected and approved by Environmental Health and Safety.

Mitigation (Preventative Measures)

Preventative measures can be the easiest way to prevent floods from occurring or reduce the amount of damage that floods or water flow can cause.
For exterior water intrusion there are some steps to follow:

- Surface water flow. If there is a problem with water flowing into the building:
  - Early warning of approaching storms and monitoring storms progress.
  - Make sure surface water has a place to flow. Make planter bed lower than the sidewalks to allow water to flow into them instead of out of them. Channeling in the landscape beds.
  - Use landscaping materials that don't float and will help the surface water stay in the non-walkway areas.
  - Make sure the outside drains are checked and clear of debris.
  - Rain gutters are clean and clear and the downspout flow is away from the building.
  - Use portable diversion devices such as sandbags or other water channeling devices.

        - Inspect door thresholds and sweeps on exterior doors prone to water seepage.
    - Interior water flow usually plumbing, fire system or sewage flows;
        - Periodic pipe and sewer inspections.
        - Know the location of the water source shut-off values.
        - Educate building users on fire sprinkler head protection.
        - Weekend and holiday cold weather notices to office users.
        - Keep flood and water cleanup supplies on hand.
        - Educate building users on reporting leaks and backups

New Construction and Renovation

Designs for new construction as well as substantive renovation of existing buildings must incorporate water management and control steps. These require the recognition of regional and local water influences as well as the planned occupancy of the building and means for protecting against preventable events. Efforts must be incorporated to identify water-sensitive occupancies, and measures taken to minimize possible impacts from leaks, breaks, back-ups, and overflows. All designs must meet minimum IBC, State of Connecticut, and City of New Haven building codes, and also pass FM review.

Basic design criteria and guidance include:

- Assessment of hydrogeological and surface water runoff setting as part of project planning phase, including identification of unusually high groundwater table and recognizable surface water issues.
- Permitted site dewatering, erosion control, and groundwater diversion as needed.
- Basement exterior wall damp proofing and installation of applicable foundation drain systems.
- Installation and maintenance of permanent sump pumps and sewage ejectors with readily-accessible means of inspection and repair.
- Avoid the installation of floor carpeting systems in lieu of other less porous systems in basements and other areas subject to water intrusion, as feasible.
- Roof and building systems that reflect southern New England rainfall, snow and ice conditions, and high storm winds under guidance from FM Global Loss Prevention criteria, including:
    - Perimeter Flashing (FM 1-49);
    - Roof Deck Securement (FM 1-29);
    - Wind Design (FM 1-28).
- Gutter and leader systems that reflect roof, parapet, and other non-vertical surface precipitation catchments, directed to storm sewer, approved water detention devices, or rainwater water collection tanks with appropriate overflow devices. Drywells should be avoided to the greatest extent possible.
- Coordination of overhead piping and other potential water sources, with efforts to divert piping from passing directly over sensitive occupancies, storage areas, and water-sensitive utilities. As preparation for this work, perform vulnerability assessments in consultation with intended occupants and other end users.

- Installation of floor drains for emergency drainage, as well as with all emergency showers in laboratory areas.
- Installation and labeling an appropriate number of readily-accessible shut-off valves for all water supply and process supply lines, especially those near/servicing emergency showers.

Maintenance of existing buildings

Yale University operates a comprehensive Facilities Operations department to help ensure timely and appropriate maintenance of its owned buildings. Emergency and routine work is scheduled through a computerized work process system known as FAMIS, to track events, history, materials, and labor. Many of Yale University's buildings also have their own Facility Stewards and occupant department facilities coordinators who keep alert to problem conditions.

Existing buildings are subject to the following range of preventative maintenance activities:

- Regular exterior grounds keeping services include periodic removal of leaves and other debris from drains, drywells, and window wells.
- Periodic drain purging on AC condensate pans and cleaning of slime accumulations on pans.
- Routine filter replacement on all HVAC systems.
- Aggressive sampling and monitoring program of cooling towers and related non-potable water sources on campus for *Legionella* and other bacteria to verify chemical disinfection regime, coordinated by EHS and outside water treatment chemical contractor.
- Routine contracted pump-outs from dining service grease traps and settling tanks, as well as emergency services for back-ups anywhere on-campus.
- Annual (or more frequent) safety inspections of all laboratories and most non-laboratory locations on-campus, by EHS and Fire Code Compliance Services. Inspectors identify and act upon evidence of excessive moisture or leaks/floods by initiating work orders with Physical Plant.
- Areas normally subject to elevated humidity (e.g., hockey rink, gymnasium locker rooms, indoor pool) have enhanced cleaning schedules with the regular use of special cleansers and disinfectants.
- Room-by-room dormitory inspections prior to extended cold weather holidays by Facilities Services to ensure windows are closed, heat levels are appropriate, and water sources are off.
- Prepare for possible extreme weather emergencies by increasing on-site and on-call staff.
- Routine maintenance of specialized water tank equipment systems (ex. deionized water systems)

In addition, Facilities Operations annually develops lists of buildings requiring additional contracted inspections, maintenance, repair, or construction to ensure that their exterior envelopes are intact. This work includes, but is not limited to, roof inspections and repairs, gutter and downspout clearing, and exterior drainage systems. Building selection is based upon historical issues relating to roof construction and gutter details as well as records of reported problems involving water infiltration and exterior drainage problems.

Roles and Responsibilities (Alpha Order)

Custodial Services

Provides routine cleaning and housekeeping, as well as prompt emergency cleanup to various emergencies including floods and other water intrusion events, using applicable techniques and personal protective equipment. For water events, custodial services are equipped with wet/dry vacuum cleaners, submersible pumps, water extractors, fans, and industrial-scale dehumidifiers for primary responses to floods, along with pre-approved disinfectants and cleansers. Custodial staff are also trained and equipped to cleanup small areas of mildew and other minor microbial contaminated surfaces and objects.

Emergency Management

Responsible for overall campus emergency preparedness, management, and response, including convening the Emergency Operations Team for large/major impact events. Among other surveillance activities, provides regular campus notifications about severe weather forecasts and preparedness needs. Coordinates business continuity planning and response on campus.

Employee Health Office

Provides medical consultative services and advice to employees concerned about allergies, sensitivities, and other medical conditions potentially associated with floods, molds, and other water intrusion events.

Environmental Health & Safety

Provides training as well as a participate in campus floods response events and other water intrusion events with the potential to involve or generate contaminated water or other serious hazards, and participates in post-flood monitoring and evaluation to minimize the potential for long-term negative consequences, including mold growth.

Fire Code Compliance Services

Establishes and approves design criteria for fire suppression systems in all locations on campus, including those requiring alternative suppressants to avert potential water damages in highly water-sensitive locations. Routinely tests and services all fire prevention, detection, and suppression systems, and works to avoid catastrophic and incidental floods and leaks from such equipment.

Grounds Maintenance

Provides routine and emergency landscaping and exterior building and grounds services, snow and ice removal, and other severe weather related services. Grounds Maintenance also provides routine maintenance services to avoid water infiltration and flooding from exterior sources, including clearing of catch basins and below-grade window wells, leaf and debris removal, and street and sidewalk clearances.

Physical Plant

Manages overall work order process for routine and emergency services and repairs, including customer service notification and dispatching, providing trained professional tradespersons and managers, assisting in the evaluation of damages to building materials and furnishings, and post-event return to normal operating conditions. Physical Plant also provides routine maintenance on critical building systems to ensure appropriate indoor conditions and prevent water infiltration and floods (e.g., clearing indoor plumbing and drainage systems, window repairs, and roof, gutter, and leader inspections and repairs).

Project Management

Prepares, reviews, and implements capital renovation and new construction projects. As part of renovation projects, strong efforts are made to identify and ameliorate recognized pre-existing buildings conditions, including those involving water or moisture problems. During actual construction and renovation work, project managers periodically monitor work areas to ensure that applicable water management measures are correctly implemented, including any temporary site dewatering, trenching, or sheet pile activities.

Risk Management

Interfaces with university insurer's on underwriting, emergency pre-planning, and recovery efforts. Facilitates claims for damages with end users.

Service Providers

A small number of outside vendors have been identified as emergency service providers to the university. These have been reviewed by Yale's purchasing and materials management departments, and also reviewed and approved by the University's insurers. Selected contractors are responsible for providing timely, effective, and cost-appropriate responses to floods, other water intrusion events, and clean-up as needed to prevent or remove molds, other microbial growth, and other recognized hazards. These contactors are required to follow applicable University procedures, including the Contractor Safety Advisory.

Special Locations and Departments

Highly water-sensitive departments (e.g., museums, galleries, libraries, certain laboratories) are responsible for developing and implementing their own internal preventative measures against foreseeable floods and other water intrusion events. In addition, as the custodians for their special materials and equipment, these departments are also responsible for developing site-specific continuity of operations procedures to protect human health and their specialized holdings and equipment.

Tenant Services
Manages and dispatches vendors to perform facilities-related work in properties where Yale is tenant (Leased Properties). Receives and manages requests for routine maintenance, repairs, and tenant/department specific requirements. Manages emergency repairs in coordination with Facilities Operations, EHS, RM, Police, Security, and FCC. Manages contracts and work-order process for services including repairs and preventative maintenance provided by Yale-approved outside vendors, including custodial services where not provided by landlord. Acts as responder in place of Superintendent and Facilities Manager for Leased Properties.

Yale Police Department and University Security Programs
Provides professional 24/7 dispatching and notification services for all campus emergencies, including floods, as well as on-scene access control, evacuations where needed, and coordination of other emergency responders.

Education, Training and Exercise

c. Training will be conducted at many different levels.
   i. Facilities will introduce the plan and provide updates during a managers meeting in the Fall and in the Spring. If updates take place in-between, they will be communicated via VEOCI. A summary of flood operations will be circulated to all staff that would be involved in a flood response (i.e. custodial services, FAC Ops, project management etc.)
   ii. EHS, RM and OEM – Managers will review and participate in the Fall and Spring review of the plan and update of the summary or flood operations. The summary of flood operations will be distributed to all responding staff.

Finance and Logistics

d. Finance
   It is important that Risk Management is notified immediately when a flooding event occurs. Delays in reporting the incident and/or determining coverage could cause delay in payment or claim denials. Most of the flooding events that occur on Yale University owned properties are covered by the University's property insurance policy and the claim would be adjusted by the Risk Management Department or the University's Insurance Company. If the flooding occurs on a Yale University leased property the coverage will be determined by cause and lease agreements. Some example of events or items that may not be covered are:
   - Repairs to the item or mechanism that caused the flooding.
   - Damage or flooding caused by lack of or poor maintenance.
   - Late reported claims.
   - Items not owned by Yale University

   Unless other arrangements have been made during the initial stages of the flood event the response to the event should follow these guidelines:

- The Department overseeing the cleanup and repairs should closely monitor the work being performed.
- While the cleanup and repairs are being performed the overseeing Department should keep Risk Management updated on the progress and projected cost.
- Risk Management will update the Insurance Companies.
- Once the work is completed the overseeing Department should gather all the invoices, confirm that they are accurate and pay them through their normal PTAEO/invoice process.
- The invoices should then be forward to Risk Management or the designated Insurance Company Representative for reimbursement processing.
- Risk Management will interface with the Insurance Companies to insure that the Departments are reimbursed for all covered event cost.
- Reimbursements will be sent to the Department.

e. Logistics
Responsible for developing and maintain the pre-approved list of outside service providers who have the staff, equipment and capabilities necessary to perform emergency recovery for flood and mold remediation assignments on an as need basis. Logistics will vet outside providers with key internal departments including Purchasing, EHS, Risk Management and the Customer Service Center. Once approved, these outside contractors will be categorized based on their capabilities vs. the response levels identified in the Flood Response Plan. Selection of specific contractors will be done utilizing the Facilities Emergency Contractor (FEC) system, which is maintained by Facilities Purchasing and accessed through the Facilities Operations Customer Service Center.

Language is in the service providers' contract

- ❑ The Service Provider that is hired must provide the following and it should be highlighted in there contract:
- ❑ The air movement and dehumidifying equipment
- ❑ Moisture testing equipment
- ❑ Provide an employee to monitor, check/test for effectiveness and move the equipment so that the area is being dried properly. They should not just set up and leave.
- ❑ Must be advised that they only take direction from the assigned event commander.

Plan development and maintenance

The plan will be reviewed by Facilities (FAC OPS, FCC, Project Management), University Properties, Environmental Health and Safety, Risk Management, Emergency Management every Fall and prior to the winter pipe freezing season. All changes will be communicated via trainings or memos to all responder. An after-action will be conducted after the winter season in preparation of the Spring/Summer flooding season.

Summary

In coordination between Facilities, Environmental Health and Safety, University Properties and Tenant Services, Risk Management and Emergency Management, this document has

been created to support flood responses at Yale. As the leading incident, this document organizes the responses into levels, determined by the damage, and building class, determined by occupants. The success of this plan depends on the close coordination, communications and collaboration among the Response Team, and the departments impacted by a flood.

Attachments

A. Damage Assessment worksheet and Flood Response Checklist
B. Assets and Vendors
C. Internal Assets
D. EHS Monitoring
E. Flood Response Levels
F. Management and Ownership of Yale Mixed Use Buildings
G. Emergency laboratory entry for fire or flood emergencies
H. Note to Building Occupants
I. Yale Flood Response Training

Attachment A Damage Assessment worksheets

Yale University

Flood Response Preliminary Damage Assessment

Event Description:	Date:

Preliminary Damage Assessment							
Building Address/Name	Specific Location (Room #, Lab name etc)	Facility use	**Damage Assessment	How much water?	Source of water	Critical equipment/ function	People impacted

- ❑ **Catastrophic**: Extensive and deep flooding across many areas. Needs to be completely rebuilt. Space cannot be used.
- ❑ **Large**: Multi-room, multi-floor, requires professional cleaning/repair. Space cannot be used at this time.
- ❑ **Moderate**: More widespread but still shallow or limited in area affecting flooring, including carpets, or drywall damage, Can be quickly and easily cleaned / repaired. Space can be used after it is cleaned.
- ❑ **Small:** Focused/Contained flood affecting less than 300 sq ft.

If the Preliminary Damage Assessment (PDA) determines that a department is destroyed or has major damage, complete the Flood Response Checklist to determine specific follow-up actions.

Yale University

Flood Response Checklist

Event Description:	**Date:**
Building / Address:	**Room Number(s):**
Space Use:	**Bldg/Space Class:**

Preliminary Damage Assessment						
Overall Damage Assessment*	# of Rooms Impacted	# of People Impacted	Source of Water	How Much? Level?	Critical Equipment Impacted?	Other
Observable hazards (tiles, electrical etc.)						

Catastrophic: Extensive and deep flooding across many areas. Needs to be completely rebuilt. Space cannot be used.

Large: Multi-room, multi-floor, requires professional cleaning/repair. Space cannot be used at this time.

Moderate: More widespread but still shallow or limited in area affecting flooring, including carpets, or drywall damage, Can be quickly and easily cleaned / repaired. Space can be used after it is cleaned.

Small: Focused/Contained flood affecting less than 300 sq ft.

Follow-Up Actions **Indicate what actions are needed for each room impacted**					
	Room #	**Room #**	**Room #**	**Room #**	**Room #**
Facilities					
Is it a critical building to the life, health, safety and security					
Do you need a Facilities Manager?					
Assign to Custodial for cleanup					
Assign to outside contractor for cleanup- if it is a critical building review floor and mold plan for appropriate vendors					
Do you need a Project Manager					
Pull up carpet					
Remove cove molding					
Place Fans					
Place Dehumidifiers					
Needs major restoration and repairs					
Move equipment/furniture					
Who is communicating with Business Owners					
Update to FAC Ops					
EHS					
Is it a Lab					
Is this a critical building?					
High Hazard environment					
Moisture mapping/testing needed					
Special cleanup or disinfecting					
OEM					
Critical or high priority function					
Need to relocate staff / work/students					
Alternate work location identified					
Can staff work remotely					
Timing significantly impacts work					
Risk Management					
Will this be reimbursable?					

Update November 2015

ATTACHMENT B: Assets and Vendors

Facilities Operations Center (FacOps) will us the FEC systems to rotate through the vendor list. The activation on a vendor will also depend on the vendor's response time.

Company	City/Town	Street	Phone				
				Small	Medium	Large	Catastrophic
ARS	North Haven	355 Sackett Point Road	(203) 497-3671	X	X	X	X
Belfor USA	Wallingford	30 North Plains Ind. Road	(203) 949-8660	X	X	X	X
Bloxam Enterprise LLC	Derby	12 New Haven Ave	(203) 888-5560	X	X		
ProKlean	North Haven	P.O Box 920	(866) 463-2313	X	X		
Service Master Albino Services	Waterbury	579 South Leonard St	(203) 753-0666	X	X		
ServPro of New Haven	North Haven	1 Corporate Drive	(203) 234-1100	X	X		
Steamatic of CT	North Haven	11 Leonardo Drive	(877) 821-1962	X	X	X	

Grease, Septic, and Sewage Tank/Pumping

- CAN Vacuum and Jet (203) 654-5663
- McVac (203) 498-1427
- Newport Biodiesel (401) 846-1117 (Dining Hall Fats and Grease)
- Sanitrol (203) 315-3202
- Wind River Environ. (203) 426-6807

Emergency Rooftop/Building Envelope Repairs

- F.J. Dahill (203) 469-6454
- Silktown Roofing (203) 735-0552
- Tecta America (860) 828-0380 or (860) 471-0101

Analytical Laboratory Service Providers

ChemScope
North Haven, CT
(203) 865-5605
Asbestos, lead

CT Testing Laboratories
Meriden, CT
(203) 634-3731
Water analysis (drinking and waste)

EarthWise Laboratories
New Haven, CT
(203) 787-6662
Multi-media chemical and bulk analyses

Environmental Health Laboratory
Industrial hygiene, bulk analyses, unknowns

Cromwell, CT
(800) 243-4903

Northeast Laboratory — Microbiological
Berlin, CT
(800) 826-0105

EM Lab P & K Laboratories — Microbiological
Cherry Hill, NJ
(866) 871-1984

ATTACHMENT C: Internal Assets

Payne Whitney Gym Sub-Basement TS12 **Custodial Services**	
Dehumidifiers	Industrial wheeled, built-in pumping and accessory hoses
Wet/Dry Vacuums	Industrial wheeled, built-in pumping and accessory hoses
Fans	Axial fans Low carpet drying style
Carpet Extractors	Industrial wheeled
Pumps	Submersible, with extra hoses
Disinfectants and Cleansers	Virex 256 disinfectant concentrate Microban mildewcide concentrate Household bleach
Sprayers	Hudson sprayers – 4 and 2 gal capacity Hand spray bottles – quart size
Kits	Bloodborne pathogens kits First aid kits
Personal Protective Equipment	Tyvek suits Safety glasses and faceshields Disposal exam gloves (nitrile) Work gloves Rubber boots N95 face masks
Electrical and Lighting	Extension cords Portable GFCI units Portable lighting Flashlights
Miscellaneous	Caution tape Shovels and brooms GE moisture meter instrument Spill pigs, pads, and wipes Tongs Heavy plastic trash bags

Hall of Graduate Studies Basement Room B63 **Custodial Services**	
Dehumidifiers	Industrial wheeled, built-in pumping and accessory hoses
Wet/Dry Vacuums	Industrial wheeled, built-in pumping and accessory hoses
Fans	Axial fans (4) Low carpet drying style (6)
Carpet Extractors	Industrial wheeled
Pumps	Submersible, with extra hoses
Disinfectants and Cleansers	Virex 256 disinfectant concentrate Microban mildewcide concentrate Household bleach
Sprayers	Hudson sprayers – 4 and 2 gal capacity Hand spray bottles – quart size
Kits	Bloodborne pathogens kits First aid kits
Personal Protective Equipment	Tyvek suits Safety glasses and faceshields Disposal exam gloves (nitrile) Work gloves Rubber boots N95 face masks
Electrical and Lighting	Extension cords Portable GFCI units Portable lighting Flashlights
Miscellaneous	Caution tape Shovels and brooms GE moisture meter instrument Spill pigs, pads, and wipes Tongs Heavy plastic trash bags

ATTACHEMENT D: EHS Monitoring Equipment

Equipment	**Capabilities**	**Units**	**General Utility/Comments**
Lumidor Micro-Max Multi-Gas Meter (Yale Fire Code Compliance and NHFD also own this unit)	Oxygen	%	Oxygen deficiency potential, including confined space entry, cryogenic gases, etc.
	Lower explosive limit	%	Confined space entry, first approximation for unknowns
	Carbon monoxide	ppm	Confined space entry, combustion sources, IAQ
	Hydrogen sulfide	ppm	As above, plus sewer gas, sulfides
RAE Photoionization Detectors (Mini and ppb Rae)	Non-specific organic vapors and some gases with ionization potential ≤ 10.6 eV (no R-Xs)	ppb - ppm	First approximation for unknowns, quantifying knowns, IAQ/odor assessments (ppb RAE). Humidity interferences.
Indoor Air Quality Meters (TSI Q-Track, or Metrosonics IAQ-5000)	Carbon dioxide	ppm	IAQ – assessment of occupancy/fresh air
	Temperature	degrees F	IAQ – comfort
	Relative humidity	%	IAQ – comfort, steam leakage
	Carbon monoxide	ppm	IAQ - combustion sources
TSI Dust-Track	Non-specific total and respirable airborne particles	mg/m^3	Comfort/nuisance dusts, first approximation of exposure limit with known airborne dusts. Must calibrate flow rate for cyclone (respirables)
Miran Sapphir Infrared Spectrophotometer	Specific organic vapors and many gases	ppm	Unknowns, quantifying knowns, IAQ/odor assessments (internal library > 100 cmpds). Must field

Equipment	Capabilities	Units	General Utility/Comments
			calibrate, sensitive to CO2 and humidity
Draeger "CMS" Chemical Monitoring System	Current inventory	ppm, mg/m^3	Quantifying knowns
Color Indicating Tubes (Sensidyne, Gas Tech & Draeger)	Current inventory	ppm, mg/m^3	Presence/absence (remember only ± 25% accuracy!). Sensitive to temperature extremes, color stains difficult to read, each compound requires different tube
Anderson 2-Stage Microbial Sampler	Culturable bacteria or fungi (media selective)	colonies per unit volume (air)	IAQ assessments, post-emergency releases (biological aerosols). Calibration critical as airflow determines particle size deposition.
Moisture Meters	Moisture in concrete, sheetrock, and wood materials	% moisture	Post-flood events

ATTACHMENT E: Flood Response Levels

Clean Water

	Small	**Medium**	**Large**	**Catastrophic**
Description	Focused/Contained flood affecting less than 300 sq ft.	More widespread but still shallow or limited in area affecting flooring, including carpets, or drywall damage, Can be quickly and easily cleaned / repaired. Space can be used after it is cleaned.	Multi-room, multi-floor, requires professional cleaning/repair. Space cannot be used at this time. Impact area over 300 sq. ft. or deep enough to floors and wallboard.	Extensive / deep flooding in many areas. . Needs to be completely rebuilt. Space cannot be used.
Team	Facilities/University Properties (UP)/Elm Campus (superintendent, custodial) may have follow-up by safety advisor and EHS Reported to Risk Management If class 1 Bldg. PM and OEM	Facilities/University Properties (UP)/Elm Campus (superintendent, custodial) may have follow-up by safety advisor and EHS Reported to Risk Management If class 1 Bldg. PM and OEM	Facilities/University Properties (UP)/Elm Campus, EHS, RM, PM, OEM, Service Provider	Coordination through Emergency Operations Center (EOC) Facilities/University Properties (UP)/Elm Campus, EHS, RM, PM, OEM, Service Provider.
Damage Assessment	1) Initial assessment conducted over the phone by the Facilities Operations Center 2) Preliminary damage assessment conducted by Facilities using visual means and/or moisture meter 3) Detailed conducted by Superintendent and Risk Management	1) Initial assessment conducted over the phone by the Facilities Operations Center 2) Preliminary damage assessment conducted by Facilities using visual means and/or moisture meter. 3) Detailed Assessment conducted by Facilities, EHS and Risk Management. And entered into VEOCI	1) Initial assessment and collections of data is conducted over the phone by the FacOps. 2) Preliminary damage assessment is conducted by the building superintendent. 3) Detailed Assessment conducted in collaboration with Facilities, EHS and Risk Management. OEM, building occupant and entered into VEOCI	4) Initial assessment and collections of data is conducted over the phone by the Facilities Operations Center. 5) A general sweep of the campus is done via drive-by to visually determine how to prioritize damage assessment 6) Teams of Facilities Superintendents, EHS and Security conduct a preliminary damage assessment (PDA) building by building checking to see if building is operable and dry: a. Entry-Accessibility

	Small	**Medium**	**Large**	**Catastrophic**
				b. Elevator (s) c. Basement d. Other hazards 7) Based on conduct a more thorough assessment to determine: a. Business Impact b. Clean-up and recovery needs. 8) Affected buildings which may pose hazard or significant disruption to normal operations may be temporarily closed or "red lighted" to restrict access, until it is deemed safe for occupancy. 9) Report findings to EOC and entered into VEOCI
Caution	Verify absence of other potential hazards in the area, especially electricity, trip hazards, and any recognized hazardous materials. If unsure, contact Facilities Control Center and Environmental Health and Safety.			
Basic PPE	Slip-resistant shoes or boots Disposable gloves Safety glasses	Slip-resistant waterproof boots Disposable gloves Safety glasses	Slip-resistant waterproof boots Disposable gloves Safety glasses	Slip-resistant waterproof boots Disposable gloves Safety glasses
Basic Work Practices	Mop, squeegee, absorb, or wet vacuum Increase ventilation if possible by opening doors or windows, higher setting for HVAC Consider a fan or dehumidifier for critical spaces	Mop, squeegee, absorb, or wet vacuum Deploy specialized extraction tools for water removal from carpeting and flooring Disinfection generally needed if > 24 – 48 hours standing water Carpeting will generally require shampooing and extraction	Mop, squeegee, absorb, or wet vacuum Deploy specialized extraction tools for water removal from carpeting and flooring Disinfection generally needed if > 24 – 48 hours standing water Carpeting will generally require	Pumps needed for initial dewatering Mop, squeegee, absorb, or wet vacuum residual Assess impacted surfaces - if deemed salvageable, deploy specialized extraction tools for water removal from carpeting and flooring Otherwise, initiate demolition and removal of impacted surfaces after

	Small	**Medium**	**Large**	**Catastrophic**
		Install fans and / or dehumidifiers Absorbent surfaces such as sheetrock generally require removal and replacement > than 48-72 of continuous soaking.	shampooing and extraction Install fans and / or dehumidifiers Absorbent surfaces such as sheetrock generally require removal and replacement > than 48-72 of continuous soaking.	assessing potential for ACM in substrates or adhesives Disinfection generally needed if > 24 – 48 hours standing water

Sewage Impacted Water

	Small	**Medium**	**Large**	**Catastrophic**
Description	Focused/Contained flood affecting less than 300 sq ft.	More widespread but still shallow or limited in area affecting flooring, including carpets, or drywall damage, Can be quickly and easily cleaned / repaired. Space can be used after it is cleaned.	Multi-room, multi-floor, requires professional cleaning/repair. Space cannot be used at this time. Impact area over 300 sq. ft. or deep enough to floors and wallboard.	Extensive / deep flooding in many areas. . Needs to be completely rebuilt. Space cannot be used.
Caution	Verify absence of other potential hazards in the area, especially electricity, trip hazards, and any recognized hazardous materials. If unsure, contact Facilities Control Center and Environmental Health and Safety,			
Basic PPE	Slip-resistant shoes or boots Disposable gloves Safety glasses	Slip-resistant waterproof boots Disposable gloves Safety glasses	Slip-resistant waterproof boots Disposable gloves Safety glasses	Slip-resistant waterproof boots Disposable gloves Safety glasses
Damage Assessment	Local	1) Initial assessment conducted over the phone by the Facilities Operations Center 2) Preliminary damage assessment conducted by Facilities using visual means and/or moisture meter. 3) Detailed Assessment conducted by Facilities, EHS and Risk Management.	1) Initial assessment and collections of data is conducted over the phone by the FacOps. 2) Preliminary damage assessment is conducted by the building superintendent. 3) Detailed Assessment conducted in collaboration with Facilities, EHS and Risk Management. OEM, building occupant and entered into VEOCI	1) Initial assessment and collections of data is conducted over the phone by the Facilities Operations Center. 2) A general sweep of the campus is done via drive-by to visually determine how to prioritize damage assessment 3) Teams of Facilities Superintendents, EHS and Security conduct a preliminary damage assessment (PDA) building by building checking to see if building is operable and dry: a. Entry-Accessibility b. Elevator (s) c. Basement d. Other hazards 4) Based on conduct a more thorough assessment to determine: a. Business Impact b. Clean-up and recovery needs.

	Small	Medium	Large	Catastrophic
				5) Affected buildings which may pose hazard or significant disruption to normal operations may be temporarily closed or "red lighted" to restrict access, until it is deemed safe for occupancy. 6) Report findings to EOC

ATTACHEMENT F: Management and Ownership of Yale Mixed Use Buildings

Management and Ownership of Yale Mixed Use Buildings (date current 7/17/13)

Address	Owner	Tenants	Agreement Type	Building Type (comm/ acad)	Building Envelope Shell/ Exterior	Store Front	Grounds/ Plowing Landscaping	Common Areas/ Elevators/ Stairwells	Interior Tenant Services	Notes
Broadway 0029-0045 FAC ID 2125	UP	Urban Outfitters	Lease	comm	UP	UP	UP	UP	Tenant	Common Area includes 1st floor Bathrooms serving retail tenant.
Broadway 0029-0045 FAC ID 2125	UP	J Crew	Lease	comm	UP	UP	UP	UP	Tenant	
Broadway 0029-0045 FAC ID 2125	UP	Laila Rowe	Lease	comm	UP	UP	UP	UP	Tenant	
Broadway 0029-0045 FAC ID 2125	UP	Thom Brown	Lease	comm	UP	UP	UP	UP	Tenant	
Broadway 0029-0045 FAC ID 2130	Central	FAS Writing Center and FAS Faculty offices	N/A	acad	Facilities	N/A	Facilities	Facilities	Facilities	Building Envelope includes 35 Broadway rear entry
Broadway 0029-0045 FAC ID 2132	Central	Off Broadway Theatre	N/A	acad	Facilities	N/A	Facilites	Facilities	Facilities	UP responsible for Trash Room
Broadway 0029-0045 FAC ID 2132	Central	Rear Courtyard(35 Broadway)	N/A	acad	Facilities	N/A	Facilities	Facilities	N/A	
Chapel 1082-1104	Central	Former Scoozi	Lease	comm	YCBA	YCBA	YCBA	YCBA	Tenant	Tenant responsible for Restarant Elevator repair and maintenance
Chapel 1082-1104	Central	Froyo	Lease	comm	YCBA	YCBA	YCBA	YCBA	Tenant	UP responsible for snow removal for building perimeter sidewalks
Chapel 1082-1104	Central	Shen	Lease	comm	YCBA	YCBA	YCBA	YCBA	Tenant	LAZ parking responsible for snow removal of parking lot and parking lot perimeter sidewalks
Chapel 1082-1104	Central	Atticus	Lease	comm	YCBA	YCBA	YCBA	YCBA	Tenant	

Management and Ownership of Yale Mixed Use Buildings (date current 7/17/13)

Address	Owner	Tenants	Agreement Type	Building Type (comm/ acad)	Building Envelope Shell/ Exterior	Store Front	Grounds/ Plowing Landscaping	Common Areas/ Elevators/ Stairwells	Interior Tenant Services	Notes
Chapel 1082-1104	Central	BAC	N/A	acad	YCBA	YCBA	YCBA	YCBA	YCBA	YCBA responsible for freight elevator and connecting hallway leading to load dock, patio, walkway and stairs (fire egress) and sidewalk between.
Chapel 1082-1104	Central	Derek Simpson	Lease	comm	YCBA	YCBA	YCBA	YCBA	Tenant	
Church 0258 / Grove 0096	Central	Academic departments above ground floor	N/A	acad	Facilities	Facilities	Facilities	Facilities	Tenant	Facilities doing snow removal for Willoughby's
Church 0258 / Grove 0096	Central	Walker Loden's & Willougby's	Lease	acad	Facilities	UP	Facilities	Facilities	Tenant	Facilities doing snow removal for Willoughby's
Church Street South 0100	Central	Various Yale	Use Agreements	acad	UP	N/A	UP	UP	Tenant	
Church Street South 0100	Central	Davita	Lease	comm	UP	N/A	UP	UP	Tenant	
Church Street South 0100	Central	CDS	Lease	comm	UP	N/A	UP	UP	Tenant	
Church Street South 0100	Central	YNHH	Lease	comm	UP	N/A	UP	UP	Tenant	
Congress 0320	YSM	YPI	N/A	acad	YSM Facilities	YSM Facilities	YSM Facilities	YSM Facilities	YSM Facilities	
Congress 0320	YSM	Blue State Coffee	Lease	acad	YSM Facilities	YSM Facilities	YSM Facilities	YSM Facilities	Tenant	Tenant responsible for bathrooms on ground floor that serve retail area
Congress 0320	YSM	vacant	Lease	acad	YSM Facilities	YSM Facilities	YSM Facilities	YSM Facilities	Tenant	

Management and Ownership of Yale Mixed Use Buildings (date current 7/17/13)

Address	Owner	Tenants	Agreement Type	Building Type (comm/ acad)	Building Envelope Shell/ Exterior	Store Front	Grounds/ Plowing Landscaping	Common Areas/ Elevators/ Stairwells	Interior Tenant Services	Notes
Elm 0296	Central	Trailblazer	Lease	comm	Facilities	UP	UP	UP/ Facilities	Tenant	UP responsible for stairway to mechanical room. Facilities responsible for stairway to 2nd floor
Elm 0304	Central	Vacant	Lease	comm	Facilities	UP	UP	Tenant	Tenant	
Elm 0310	YSM	Trash Room		acad	Facilities	Facilities	Facilities	Facilities	Facilities	
Howard 0840	YSM	Walgreens	Lease	comm	YSM Facilities	N/A	YSM Facilities	YSM Facilities	Tenant	No Retail Common Areas
Howard 0840	YSM	Clinical	N/A	acad	YSM Facilities	YSM Facilities	YSM Facilities	YSM Facilities	YSM Facilities	
Howe 0067-0081	Central	Vacant	Lease	comm	Facilities	UP	Facilities	Facilities	Tenant	
Temple 0421	Central	International Center	N/A	acad	Facilities	N/A	Facilities	Facilities	Facilities	
Temple 0421 (Whitney 0060)	Central	Katahdin Furniture	Lease	comm	Facilities	UP	UP	Facilities	Tenant	
Temple 0425	UP	Parking Lot	N/A		UP	UP	UP	UP	N/A	Includes alley to Whitney Ave and Temple Street sidewalk
Temple 0433 (Whitney 0068-0082)	UP	Office of Sustainability	Needs Use Agreement	acad	UP	UP	UP	UP	Tenant Services	Tenant Services to contract for R & M of HVAC RTU.
Temple 0433 (Whitney 0068-0082)	UP	OCR	Use Agreement	comm	UP	UP	UP	UP	Tenant Services	
Temple 0433 (Whitney 0068-0082)	UP	ONHSA	Use Agreement	comm	UP	UP	UP	UP	Tenant Services	
Wall 0082-0090	Central	Phil's Barber	Lease	comm	Facilities	UP	Facilities	Facilities	Tenant	
Wall 0082-0090	Central	Blue State Coffee	Lease	comm	Facilities	UP	Facilities	Facilities	Tenant	
Wall 0082-0090	Central	Wall Street Pizza	Lease	comm	Facilities	UP	Facilities	Facilities	Tenant	Except Retail Tenant Trash -> Trash Area Inside the Gate

Management and Ownership of Yale Mixed Use Buildings (date current 7/17/13)

Address	Owner	Tenants	Agreement Type	Building Type (comm/ acad)	Building Envelope Shell/ Exterior	Store Front	Grounds/ Plowing Landscaping	Common Areas/ Elevators/ Stairwells	Interior Tenant Services	Notes
Wall 0082-0090	Central	Academic departments above ground floor	N/A	acad	Facilities	Facilities	Facilities	Facilities	Facilities	
Whitney 0055	Central	Various Yale	Use Agreement	acad	UP	N/A	UP	UP	Tenant	
Whitney 0055	Central	Various Retail	Lease	comm	UP	UP	UP	UP	Tenant	
Whitney 0055	Central	GSA (Judge Winter)	Lease	comm	UP	N/A	UP	UP	Tenant	
Whitney Grove Square 0002	Central	Yale	N/A	acad	Facilities	N/A	Facilities	Facilities	Facilities	
Whitney Grove Square 0002	Central	Murtha Cullina	Lease	comm	Facilities	N/A	UP	Facilities	Tenant	
Whitney Grove Square 0002	Central	Connex	Lease	comm	Facilities	UP	UP	Facilities	Tenant	
Whitney Grove Square 0002	Central	Taft	Lease	comm	Facilities	UP	UP	Facilities	Tenant	
Whitney Grove Square 0002	Central	Knit	Lease	comm	Facilities	UP	UP	Facilities	Tenant	
Whitney Grove Square 0002	Central	H Pearce Realty	Lease	comm	Facilities	UP	UP	Facilities	Tenant	
York 0150	Central	Vacant Retail	Lease	comm	Facilities	Facilities	Facilities	Facilities	Tenant	Managed by Parking and Transit
York 0194	Central	Willoughby's	Lease	comm	Facilities	Facilities	Facilities	Facilities	Tenant	

Changes in Ownership

Address	Owner	Tenants	Agreement Type	Building Type (comm/ acad)	Building Envelope Shell/ Exterior	Store Front	Grounds/ Plowing Landscaping	Common Areas/ Elevators/ Stairwells	Interior Tenant Services	Notes

No changes in building ownership anticipated within FY 14 at this time.

Management and Ownership of Yale Mixed Use Buildings (date current 7/17/13)

Address	Owner	Tenants	Agreement Type	Building Type (comm/ acad)	Building Envelope Shell/ Exterior	Store Front	Grounds/ Plowing Landscaping	Common Areas/ Elevators/ Stairwells	Interior Tenant Services	Notes

Footnotes:

Owner is responsible for common Life/Safety and HVAC systems

Owner Funds management and capital repairs and replacement costs and books income

Landscaping includes all exterior groundwork including snow removal and sidewalk repair

Attachment

	Yale University	
Standard Operating Procedure (SOP)	**Emergency Laboratory Entry for Fire or Flood Emergencies**	**Date Adopted**:
Revision Date: May 8, 2014		**Approver**: For Facilities: For EHS:

Purpose: This SOP should be used as a guideline when entering lab spaces during Emergencies or a potential Emergency. An Emergency is classified as life threatening and/or an equipment damaging event, such as a fire or flood.

Scope:

- To provide the Facilities Operations (FACOPS) personnel with a guideline for steps to take prior to entering the lab space
- Notification process prior to entry

Procedures:

- The FACOPS Service Center will dispatch appropriate service personnel upon receiving notification of a maintenance problem.
- The service responders will report to the site and isolate the cause of the flood immediately.
- "Fire" notification: in most instances, the smoke detectors will activate a fire alarm. The fire alarm is received by the Yale Security Department.
- Yale Security will dispatch NHFD, YPD, and Yale FCCS. In addition, Yale Security will notify the FACOPS Service Center.
- The FACOPS Service Center will immediately notify EHS, the Facilities Superintendent(s), the trades supervisors, and senior leadership.
- Upon notification, each service provider will initiate their corrective action plan.
- Off Shift support:
    - **YSM Campus:** the second shift Facilities Superintendents are the primary M&P contacts, Monday - Friday, from 4:00 PM until 12:30 AM.
    - **Central Campus:** the second shift FACOPS Service Center Supervisor is the primary contact and also supports YSM and West Campus as needed.
    - **Central Campus:** the third shift FACOPS Service Center Supervisor is the primary contact, campus wide.

  - The FACOPS Service Center first shift supervisors are the primary contacts for **Saturday & Sunday, from 10 AM – 7 PM.**
  - **Saturday & Sunday, from 7 PM – 12 Midnight**, the FACOPS Service Center specialists will refer to the On Call Manager schedule for notification and corrective action through the On Call Manager for each campus.
- Service response activity will be coordinated by the shift supervisors, or the On Call Manager
  - Duties included but not limited to:
    - Contacting customers, employee callbacks, coordination of work, etc.
    - The shift M&P or the On Call Manager will use the "Laboratory Information Card" contact information to call the space occupiers. The "blue cards" are posted by the lab wall next to the entrance door.

LABORATORY ACCESS / RESPONSE:

- The first service responder should review the "Laboratory Information Card". The Laboratory Information Card is posted on the lab wall next to the lab entrance door. The service responder should identify possible hazards, such as "Chemical" and/or "Radiation", but treat all rooms as if they were **"potentially contaminated"**.
- The service responder(s) should make sure that they have appropriate PPE at all times while in the lab.
- The service responders must remove the PPE and dispose of them properly before exiting the lab space.
- The service responder(s) must don new PPE before entering the lab space.
- The service responder(s) cannot travel through common spaces with their PPE on.
- Commence cleanup of water as soon as practical to minimize further spreading and facility/equipment damage. Full wet vacuums can be discharged down the sanitary sewer via any laboratory sink. All extraction equipment, including mops and buckets, will be surveyed by the EHS emergency responder when they arrive. Do not leave the immediate area until the EHS emergency responder arrives and they give you the all clear. Also check lower floors for possible infiltration of water.
- All staff and equipment may need to be surveyed prior to leaving from work and before equipment can be put back into service in other areas.
- The FACOPS supervisor will contact additional personnel if needed.
- If needed, the service responder and/or supervisor will call the FACOPS Service Center to inform them that they will be entering a secured space (alarmed).
- The FACOPS Service Center will contact Yale Security, EHS or YPD to notify them of activity.
- The service responder must place plastic covering over equipment affected by water hazards. This will reduce any potential for further damage.
- Again, make sure you are wearing your PPE at all times from entry to exit of the lab.

Below are the locations of the Flood Response rooms for all three campuses:

YSM Flood Rooms:	
LEPH 1st Floor, Room 0154	Items: PPE, Pumps, Wet Vacs
TAC South, loading Dock 046	Items: Blowers, Pumps, Dehumidifiers, PPE, Wet Vacs

Central Campus Flood Rooms:	
Payne Whitney Gym, Room TS12	Water Hoses, Pumps, Fans, Dehumidifiers, Wet Vacs, Moisture Meter, PPE
Science Hill, Klein Biology Tower, Room CD2AA	Wet Vacs, Dehumidifiers, Fans, Air Scrubbers, Moisture Meter, PPE
Hall of Graduate Studies, Room B63	Blowers, Pumps, Wet Vacs, Moisture Meter, Air Scrubbers, Water Hose, Generator, PPE

West Campus Flood Room:	
Building B27, loading dock	Pump, Wet Vacs, Plastic Sheeting, Spill Absorption Kits, PPE

Additional Notes:

It is the responsibility of the individual labs and their respective Business Managers to maintain the "Laboratory Information Card". EHS will regularly audit these cards to ensure that they are updated.

If a contact person cannot be reached, the Business Manager for the laboratory involved will be contacted.

- This SOP will be maintained on the Facilities Operations SharePoint document site. ,
- All Facilities Operations M&P's have access to SharePoint.
    - The document is saved in the Facilties Documents tab
    - Subfolder: "Facilities Building Services Group Folder
- Distribution:
    - Facilities Operations Area Managers

  - On Call Manual for each campus
  - FACOPS Service Center
- SOP should be used as a reference in the event of an Emergency.

This SOP is to be reviewed and updated as needed, a minimum of once per twelve (12

ATTACHEMENT G: Note to building occupant

Attention Building Occupant

In order to reduce the amount of business interruption, student, faculty, staff, and visitor inconvenience and event cost, we ask all building occupants affected by this flood to adhere to the following requirements.

- ❑ In the majority of cases the most effective, expedient, and cost efficient way to cleanup-flooded areas is to allow the area to dry completely. Usually the drying time will take at least three days.
- ❑ You **MUST** keep the dehumidifiers and fans on at all times. Turning them off will extend the drying time and possibly extend your recovery for many days, if not weeks.
- ❑ If the area is not allowed to adequately dry, water will rise up through the sheetrock which will have to be replaced. Rugs and furniture may also be affected unnecessarily increasing the cost and business interruption.
- ❑ Environmental Health and Safety will frequently monitor the flood-affected areas to ensure proper drying and prevention of mold.
- ❑ If the noise level is too much of a nuisance, then alternative work areas should be considered.
- ❑ In some cases due to space usage or extent/type of flooding more drastic restoration steps may need to be taken.
- ❑ Cost recovery and insurance claims may be denied if improper actions, such as turning off drying equipment, occur. The cost of the response may become the burden of the affected department.

Our commitment is that we will have a response and recovery plan in place within 48 hours of the flood. We will work in collaboration with your department to ensure that you are aware of this plan, what you can expect, and if anything changes along the way. We understand that this is very inconvenient and we appreciate your help and cooperation in minimizing the impacts of this flood. If you have any questions or concerns please contact Facilities Customer Services at 203-432-6888. FAC Ops would be able to address any question about the recovery plan or the placement of drying equipment.

Thank you,

Yale Facilities
Yale Environmental Health and Safety
Yale Risk Management
Yale Office of Emergency Management

Attachment I- Yale Response Plan Training

Yale Flood Response Plan Training Document

Purpose: The purpose of this document is to inform persons who are responsible for responding to a flood on the Yale campus of the University's Flood Response Plan. This document includes instructions for the "person in charge", chain of command, individual departmental responsibilities, building priorities, damage assessment and levels of response.

Audience: Facilities Operations (Facilities Services, Facilities Customer Service, Fire Code Compliance (FCC), Grounds, Physical Plant, Project Management), Environmental Health and Safety (EHS), Risk Management (RM) and Emergency Management (OEM), YARC.

This plan discusses the response procedures for:

- Academic/Core Facilities – Any building or property owned and occupied solely by Yale and used in furtherance of Yale's academic mission. Users include Central Campus, Med Campus, West Campus and Administrative Units. Management of these properties is the responsibility of the Office of Facilities and are serviced by Facilities employees and/or outside vendors.
- University Properties – Commercial Property owned by Yale where Yale is Landlord and buildings are occupied by third-party tenants. Buildings may also be occupied by Yale units but not exclusively. Management of these properties is the responsibility of the Office of University Properties. Operationally, these buildings are serviced by outside property management groups including Elm Campus Partners, Winstanley Property Management and Konover.
- Leased Properties – Commercial properties owned by third-parties and occupied in part or in whole by Yale as Tenant. Management of the buildings is the responsibility of the Landlord. Management of the interior of Yale occupied spaces is handled by Tenant Services. Tenant Services engages outside vendors to service Yale spaces in these buildings.
- Mixed Use Buildings. Buildings that have more then one of the above designations, most commonly, academic buildings with a retail commercial component on the street level. Management of the base buildings is handled by the Office of Facilities. Management of the third party tenant space is handled by University Properties through its outside vendors.

Levels of Response:
The levels of response will be classified by the size of the affected area (small, medium, large, catastrophic) as defined below or by type of work that is occurring in the affected area. The type work will classify a building by Class 1, 2 or 3 also defined below. In some instances a small flood may occur that would normally require a minimal response but because the flood is in a Class 1 building, the response may be greater and possibly equal to a moderate or large response.

Small Flood – Focused / contained flood affecting less than 300 sq. ft. feet limited to two or three rooms/offices or areas. Drywall cutting or demolition may not be required. Facilities Operations will contact either Facilities Superintendent and Custodial Services (owned properties) or Tenant Services (leased properties) who will perform the cleanup and repairs using ordinary cleaning tools and equipment. Minor repairs might be required. The response team will facilitate or perform mitigation of any issues for occupants. Expected clean up time is less than 4 hours. Drying time between 15-24 hours.

Medium Flood – More widespread but still shallow or limited in area affecting flooring, including carpets, or drywall damage,. Water did not transfer through floors. Impact area over 300 sq. ft. or deep enough to floors and wallboard. Facilities Operations remains the primary responder activating internal and possibly some external resources. Clean-up and repairs can be handled by local assets or small service provider using local equipment or service provider equipment unless the building is identified as (CLASS 1)

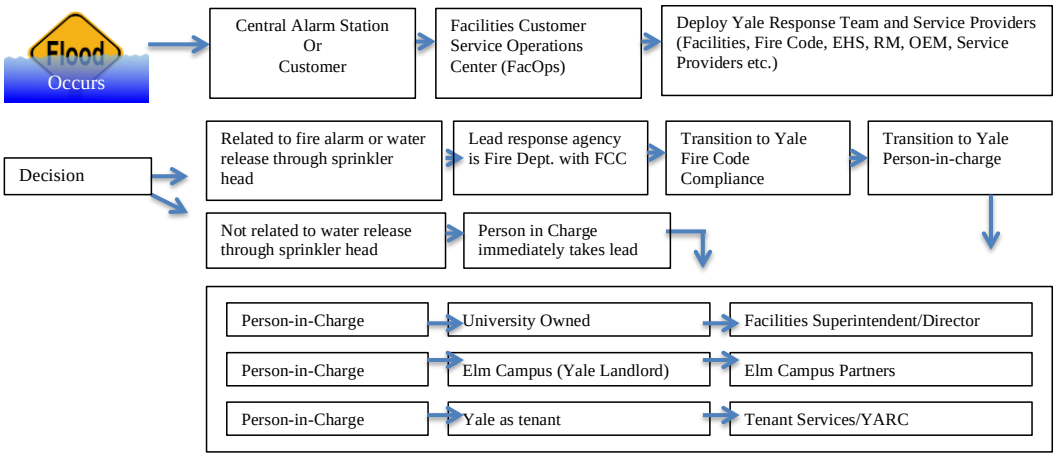
Large Flood- Multi-room, multi-floors, that significantly impacts one or many buildings. Indicators include affecting a number of floors in one building, the relocation of offices, people, essential functions, and critical functions (life, health, safety and security) , or the interruption and inability of these functions to continue operating. A service provider should handle a large flood.

Catastrophic Flood – Extensive and deep flooding across many areas. This level of flooding may be caused by a hurricane, heavy and persistent or flash rainstorm, or a sudden and significant snowmelt. Affected buildings which may pose hazard or significant disruption to normal operations may be temporarily closed or "red lighted" to restrict access, until it is deemed safe for occupancy.

Building/Facilities Classifications:

i. Class 1 Building- Public Safety, YARC, Clinical/Patient Care Space, High Hazard, Lab Research, Cultural Properties, Data Center, specialized equipment, utilities.
ii. Class 2 Building- Housing, Day Care, Dining
iii. Class 3 Building- Classroom, general office building

Initial Response: defined as the first steps taken by the Response Team (RT) to determine impact of an incident



Person-in-Charge	❑ Using VEOCI conduct damage Assessment (small, medium, large, catastrophic) ❑ If large or catastrophic- Person-in Charge transition to Director of Facilities ❑ Affected area deemed a class 1 or 2 location? ❑ Call FacOps to activate resources needed for cleanup (internal/external) ○ Custodial, contracted cleaners, movers etc… ❑ Call FacOps to advise additional responders – form Response Team (RT) (EHS, RM, Project Mgt. OEM) ❑ FacOps notify affected department- Determine if department needs relocation?

Response: Defined as the actions taken by the response team to mitigate the consequences of the incident.
Recovery: Defined as the phase that helps those affected by the incident begin the process of getting back to "normal" operations

FacOps	❑ Coordinate the activation and communications of response team ❑ Manage information through VEOCI ❑ Ensure that the right service responders, according to the damage assessment is activated
Person-in-Charge	❑ Coordinate cleanup with Physical Plant, custodial, contractors, EHS, RM, Project Mgt, OEM, building occupants ❑ Develop response and recovery plans with Physical Plant, contractors, EHS, RM, Project Mgt., OEM, building occupants. ❑ Post "Note to Building Occupant" throughout the affected area- document in VEOCI
Service Provider	❑ Activated by FacOps and directed ONLY by the Person-in-Charge ❑ Recommend a cleanup plan and ensure that employees have access to affected area ❑ Conduct cleanup as agreed/directed and provide regular updates to the Response Team (RT) ❑ Works with Person-in-Charge on recovery/cleanup plans
Environmental Health and Safety	❑ Determine if any hazard exist in flooded area ❑ Plan for remediation action ❑ Monitor and evaluate affected area to minimize potential for long-term negative consequences, including mold growth. ❑ Give the all clear for re-occupancy
Project Management	❑ Based on the damage (med, large, cat.) and building designation Project Mgt. will prepares, reviews, and implements re-construction of affected area. ❑ Person in charge during recovery phase.
Risk Management	❑ Interface with university insurers. Facilitates claims for damages with end-users.
Emergency Management/ Business Continuity	❑ Support the business continuity of impacted departments and assist with temporary housing ❑ Activate Yale EOT if event is large or catastrophic