





# A New (and Better) Approach to Water Intrusions

## HOW UNIVERSITIES CAN HARNESS INTERNAL RESOURCES TO SAVE MONEY AND MINIMIZE INTERRUPTIONS

BY TIM POSKIN

Pipe freeze-ups, plumbing mishaps, and roof leaks are all too common—and often occur over weekends or during school breaks when buildings are vacant and staff is limited. Windows left open while temperatures plummet, mechanical rooms and fraternity houses flooded, and heating system failures are all real-life scenarios that can cause major moisture problems. There's no doubt—in the realm of university building management and construction, water intrusion poses a significant challenge.

Despite advancements in building technologies, water intrusion remains a serious, multifaceted problem that regularly affects campus residential, academic, and athletic buildings. When unwanted water infiltrates, the roof, walls, windows, and foundation can all be impacted. On many campuses, poor construction and aging infrastructure exacerbate the risk of serious damage when intrusion occurs.

The consequences of water intrusion are far reaching. It compromises space use, leading to delayed classes, canceled events, and unhappy building occupants. Moreover, trapped moisture creates an ideal environment for mold and mildew to flourish, posing health risks to staff and students. Not addressing problems quickly can lead to expensive remediation, and, in severe cases, significant building reconstruction.

Today, universities often use existing, internal workforces to improve first response efforts—but those internal efforts to address water damage need to follow sound practices, with the right tools on hand, to be effective. Standardized processes and benchmarking systems revolutionize the way universities address water intrusion issues, saving both time and money as well as preventing space downtime that can impact the learning experiences of students. When in-house staff is trained for this work, universities can leverage this practical resource to tackle problems in house rather than contracting out every water issue.



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### A Standardized Process

Implementing a structured approach harnesses the power of university facility maintenance teams to address water intrusion and ensures effectiveness and consistency. An essential initial step involves a comprehensive assessment process, encompassing the following crucial elements:

#### Initial Evaluation

Conduct a full baseline evaluation of facilities requiring cleaning or potential restoration, as well as available equipment and materials needed, using an objective third party. Outside experts in water-damage restoration can help navigate the assessment process and share first-hand knowledge, including common readiness challenges and solutions.

This initial evaluation establishes the current situation and identifies critical gaps. It should:

- Include a facility tour with key leadership present and an inventory of available response tools and equipment
- Cover who will respond to water damage emergencies, what staff training has taken place, accessibility of equipment, and current response process
- Extend to logistical details such as identifying electrical outlets for equipment, confirming their functionality, checking air quality against EPA standards, and noting equipment storage locations

Initial evaluation can uncover gaps in preparedness as well as key strengths—both relevant to planning. For example, during a recent evaluation at a major university, evaluators from Legend Brands' Ready to Respond (R2R) program identified a range of areas that were being handled well—like personal protective equipment (PPE) use and record keeping—as well as a list of areas needing improvement, such as insufficient equipment on site, lack of monitoring of off-hours incidents, and inconsistent response protocols. These findings informed development of a systemized approach.

#### Detailed Procedures

Develop detailed response protocols for mitigation and restoration tasks, including step-by-step procedures for the use of cleaning agents and water damage restoration equipment. These protocols should define precise roles and responsibilities for staff and incorporate industry best practices. Many organizations effectively use flowcharts to outline standard operating procedures during emergencies. For example:

- **Step 1:** Locate and halt the water source.
- **Step 2:** Determine the type of water (clean or contaminated).
- Subsequent steps provide specific instructions for selecting equipment, setup, and disinfection.

In the R2R-assessed university's case, response protocols existed but were fractured—spread among different departments—therefore a new, integrated response protocol needed to be developed.

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### Employee Training

Provide comprehensive training to facility staff on standardized protocols, emphasizing the importance of timing, accuracy, and consistency. This training prepares staff to act as effective first responders during emergencies and includes instruction on:

- Proper equipment setup and operation
- Identifying potential safety hazards
- Preventing mold and mildew
- Employing general best practices for healthy cleaning and restoration

Industry partners, including Legend Brands and the International Sanitary Supply Association (ISSA), offer hands-on training opportunities, allowing staff to gain practical experience in handling building emergencies. Additionally, brief training sessions for all building occupants can cover initial actions to take during emergencies, including safety considerations.

### Equipment Inventory

Ensure the availability of appropriate equipment and supplies, including tools, PPE, and cleaning agents, while regularly checking and maintaining equipment to ensure optimal functionality. This includes considerations such as:

- Availability of moisture inspection tools
- Adequate storage space for equipment
- Types of disinfectants in use
- Availability of commercial-grade extraction, drying, dehumidifying, and air filtration equipment

Cutting corners on equipment can result in extended drying times, blown fuses, and occupant health concerns. Specialized meters designed for water-damage assessment provide more accurate readings than the hands and feet “touch test”—which the R2R-assessed university was relying on for moisture inspections.

### Documentation

Establish a robust system for documenting cleaning and restoration activities, including schedules, tasks performed, tools used, and outcomes. Comprehensive documentation facilitates progress tracking, identifies areas for improvement, and ensures compliance with safety and health regulations.

In cases where insurance claims are filed, detailed documentation is essential. Proper record keeping is also crucial for institutional guidelines and capital planning in public environments like universities.

### Quality Assurance

Implement quality control measures through regular evaluations and assessments of the response program’s effectiveness. Gathering feedback from staff and other stakeholders helps identify and address issues promptly. These evaluations should address questions such as:

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- What worked and what didn't?
- Why didn't certain approaches work?
- Is the issue isolated or systemic?

Meanwhile, be sure to stay informed about emerging technologies and practices in mitigation and restoration. Advancements in technology—such as the Legend Brands/Dri-Eaz Command Center system—now enable remote monitoring of moisture levels and equipment functionality.

**Effective Communication**

Establish clear communication channels to keep relevant parties informed about response requirements, updates, and protocol changes. An organizational pitfall the R2R team has observed is when facilities staff rely on one person with institutional knowledge to serve as the go-to when an emergency occurs. Training materials, inspection reports, and corrective actions must be easily accessible to all team members. Creating a central communication system ensures efficiency and prevents duplication, especially when an incident occurs off hours.



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**Risks to Avoid**

While utilizing the university workforce as first responders holds tremendous promise, it is essential to acknowledge and address possible challenges:

- **Resource allocation**—Universities must allocate resources to support

this initiative, including necessary equipment and materials.

- **Liability and insurance**—Universities must consider liability issues and ensure proper insurance coverage for students involved in on-site work.

- **Quality control**—Maintaining high quality standards is crucial. Oversight and industry partnerships can help ensure that the work meets professional standards.

Solving costly, everyday building water intrusion issues with university workforce teams is an innovative and promising approach that has proven success. Soon after its R2R evaluation was complete and standardized processes were enhanced, the major university that was assessed experienced a serious water intrusion impacting luxury suites at its large stadium—which was scheduled to be in use just two days later for a professional sporting event.

With an internal response system now in place, facilities staff worked immediately to extract water, dry down the area thoroughly, and meet the deadline. If a contractor had instead been called, scheduling the clean-up could have taken weeks. And if action had not been taken so quickly, the intrusion could have led to far more costly and extensive damage.

The university’s facilities staff said that having the option to handle a situation in house brought the team confidence and helped save thousands of dollars toward insurance deductibles. For a university with more than 16 million square feet of building space, the impact of having these capabilities in house is significant.

By implementing a standardized process and benchmarking system, universities can tap into their vast resources to address a critical real-world problem. As they continue to evolve as centers of knowledge and practical experience, addressing complex challenges like water intrusion is more critical than ever to ensure these spaces remain open, safe, and healthy

**ABOUT THE AUTHOR:** Tim Poskin is the current MRO Program Director for Legend Brands, managing its Ready2Respond Facility Assessment Program. He currently serves as chair of the ISSA Cleaning Management Institute (CMI) Workloading and Benchmarking Council and is the former Director of the ISSA Consulting Division. Tim is one of the world’s leading authorities on cleaning and restoration workloading, converting outsourced response contractors to in-house response specialists, and transitions from polluting programs to restoration systems. Tim can be reached at 206-384-6967 or t.poskin@legendbrands.com.





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