



# Case Study: Tulare Lake Flooding

## Major Event Overview

In March 2023, an extraordinary flooding event occurred in the Tulare region of California, following record snowfall in the Sierra Nevada Mountains during the winter of 2022-2023. As a result, a veterinary research facility at a leading educational institution experienced severe flooding. The lab had to be evacuated, and adjacent facilities were also affected.

## Client Market Sector



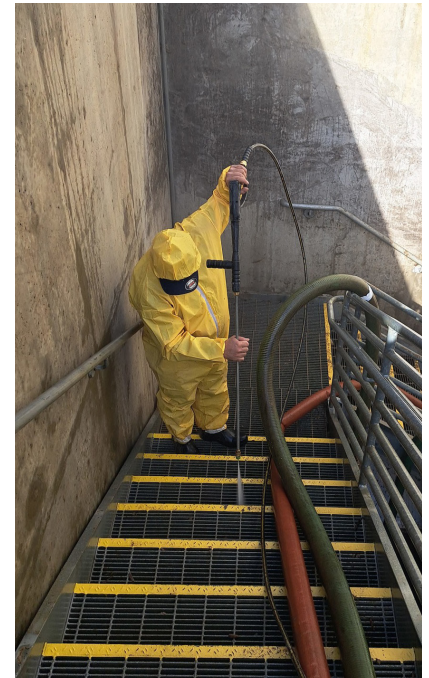
Education

## Job Size

The flooding event affected multiple lab facilities, spanning approximately 25,000 square feet. The flooded area covered around 6,000 square feet, including critical areas such as the incinerator space, with water levels reaching up to 30 feet deep.

## Job Amount

**\$604,000**



## Scope

- Water Extraction
- Water Damage Mitigation
- Debris Removal
- Selective Demolition
- Detailed Cleaning
- Salvaging
- HVAC Cleaning
- Disinfection



Before



After



## Project Challenges

Given the amount of flood water, the entire building was underwater, so the ATI team could not observe the affected area. The first step to determine the extent of the damage and prevent additional issues was to extract the water from the basement.

The water extraction was a concern, however, because of hydrostatic pressure. If the water was extracted too quickly, it could cause structural damage to the basement, or the basement could collapse entirely. The team also had to ensure that all water discharged met environmental health and safety standards.

The facility's sump pumps were not working because they were filled with sediment, so ATI secured four trash pumps, all operating simultaneously, to extract the debris. Any remaining liquid was removed by sump pumps. Once the water was pumped out, the remaining challenge was removing the four feet of sediment and mud in the basement and cleaning the facility.

To complete the work, the team also had to remove and clean complex equipment and systems, including electrical panels and conduits.



## Solution

ATI partnered with an environmental consultant to devise a systematic approach to expedite this remediation and restoration project and get employees back into the lab as quickly as possible.

Here are the steps that the ATI team took to restore the lab:

1

### Water Extraction

ATI worked with a structural engineer to develop a protocol that allowed for the extraction of up to four feet of water per 24 hours, ensuring safety and structural integrity.

2

### Environmental Assessment

A hygienist assessed the discharged water to ensure it met environmental safety standards.

3

### Debris Removal

ATI conducted extensive debris removal, including disposing of drywall, ducting, conduit, and other damaged materials. Recyclable metals were salvaged and recycled.

4

### Salvaging

A specialist was brought in to preserve equipment and contents for future lab operations.

5

### Remediation

ATI cleaned and sanitized the affected areas to prevent microbial growth and ensure safety.

6

### Safety Measures

ATI implemented lockout/tagout procedures to ensure worker safety before entering the flooded facilities.

7

### Temporary Power

ATI established temporary power sources to facilitate the remediation process.

8

### Coordination

ATI's close coordination with facilities management, environmental health services, and FEMA ensured a cohesive response to the flooding event.

## Conclusion

Despite considerable challenges, the project was completed in approximately 3.5 months, allowing the lab to resume its important research and teaching activities. The dedication and expertise of the ATI Restoration team, in collaboration with various stakeholders, played a crucial role in the efficient remediation and restoration of the flooded lab facilities.

## Job Completed

- ✓ On Time
- ✓ ZERO OSHA Violations
- ✓ ZERO Safety Incidents