

# Case Study

Pipe Freeze Prevented

## BACKGROUND:

A high-rise residential property had experienced a significant water service failure due to frozen pipes. The failure involved the water service room's hot water heating system malfunctioning, causing the water main pipes and pumps to freeze. This resulted in a loss of water supply to the building and the need for extensive and costly repairs to replace the main water pipes. Given this history, property management recognized the importance of implementing the WATERSHIELD system to prevent similar issues from arising in the future.

## PROBLEM IDENTIFICATION:

The primary goal was to implement a monitoring system that would proactively detect potential issues related to temperature fluctuations and water usage. The WATERSHIELD system, equipped with the FLOODIE device, was chosen for its ability to monitor temperature and send alerts when temperatures dropped below a critical threshold. Every time outdoor temperatures fell below 0°C, FLOODIE sent alerts regarding the risk of freezing conditions inside the water service room. At times, the room's indoor temperature dropped below 2°C, which triggered an immediate alert to the management team, indicating the need for urgent attention.

## SOLUTION:

Upon receiving alerts from the FLOODIE device, the property management team launched an investigation. It was determined that the room's temperature was dangerously close to freezing, a direct result of a defective heater fan in the water service room. The malfunctioning fan was preventing the room from maintaining a stable and safe temperature, leaving the water pipes vulnerable to freezing. The heater fan was promptly repaired, restoring the room's temperature control and ensuring it remained well above freezing. If the FLOODIE alert had not been triggered, the temperature drop could have gone unnoticed, potentially causing extensive damage to the water supply infrastructure.

## CONCLUSION:

By implementing the WATERSHIELD system, the property was able to avoid potential damage to the water pipes and ensure that the water supply remained intact, even during extreme cold weather conditions.



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