



Water Leak Detection System

Possible Academic Connections: Civil Engineering, Business

Recommended project length: Semester

Experiential Learning? No

Community Engagement? No

Remote learning possible? Yes

Connection to OHIO Sustainability & Climate Action Plan: Water, Buildings

Brief description: Determine which leak detection system is the most effective and will cost the least for the University.

Project description:

Investigate various products that detect water leakage and will automatically shut valves to minimize losses; create written recommendations for purchase of water leak detection systems.

The written recommendations must include a triple bottom line cost-benefit analysis of the water leak detection system purchase with an expected payback period. Cost must include at a minimum system purchase cost, operating and maintenance costs. Benefits must include at a minimum savings from reduced water leakage, from reduced carbon emissions and some financial measure of water users' health, comfort or convenience.

Resources available to students/faculty to complete project:

- "Specifying Plumbing Leak Detection" PDF
- Case study: "Shutting Down Plumbing leaks in Commercial Mechanical Rooms" PDF
- Water Flow (GPM) based on pipe ID and pressure chart
- [Water loss due to leakage calculator](#)
- Staff time

Resources available upon request

Project alignment to OHIO Sustainability & Climate Action Plan:

- [Water](#) (goal #3)
- [Buildings](#) (goal #2)

Please send final project deliverables to sustainability@ohio.edu for tracking and reporting purposes.