

Rooftop Rainwater Collection System on Foisie Innovation Studio

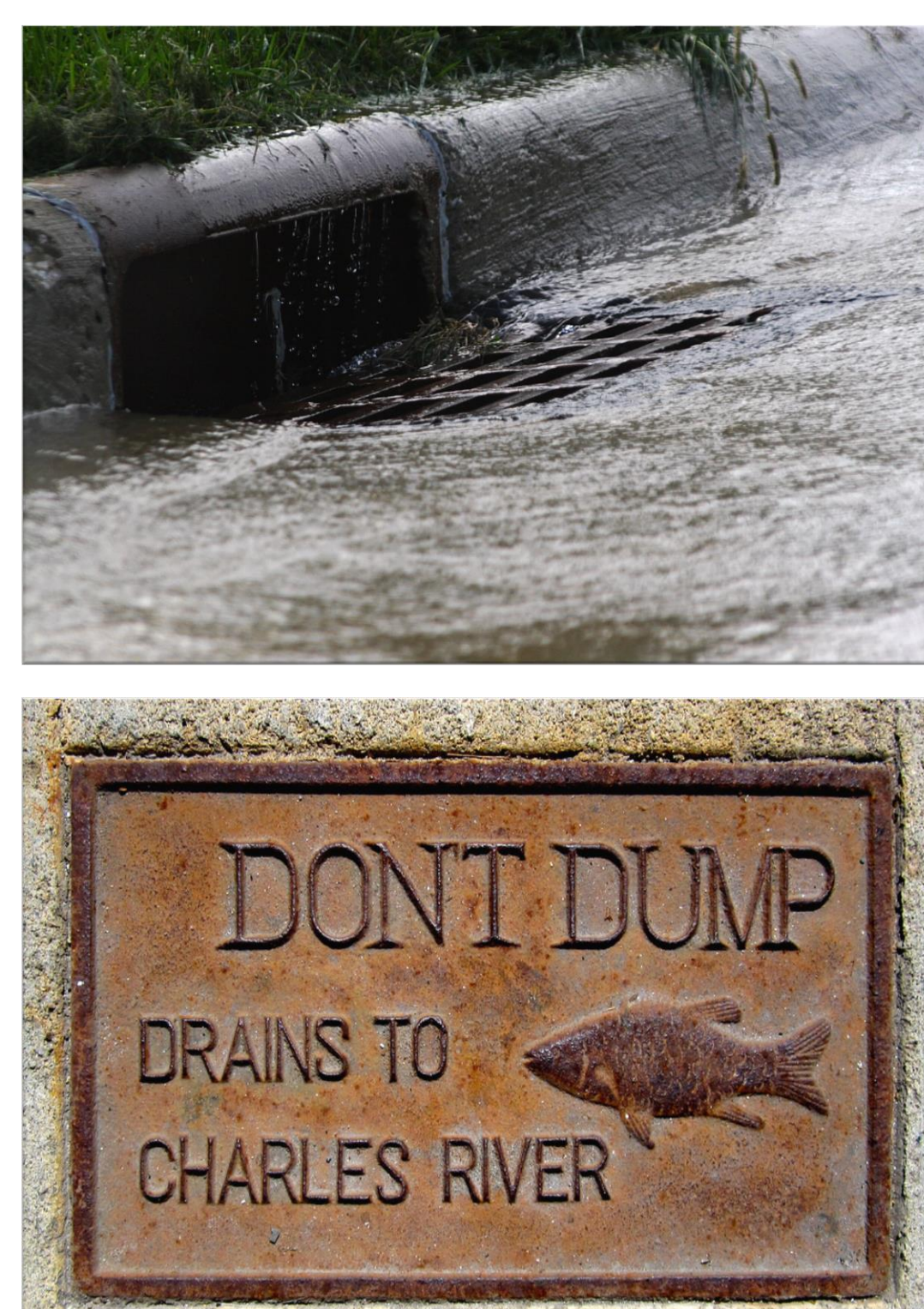
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The Problem

Runoff is destructive toward cities and ecosystems alike. The excess water floods sewer systems and pollutes local waterways.



Project Goal

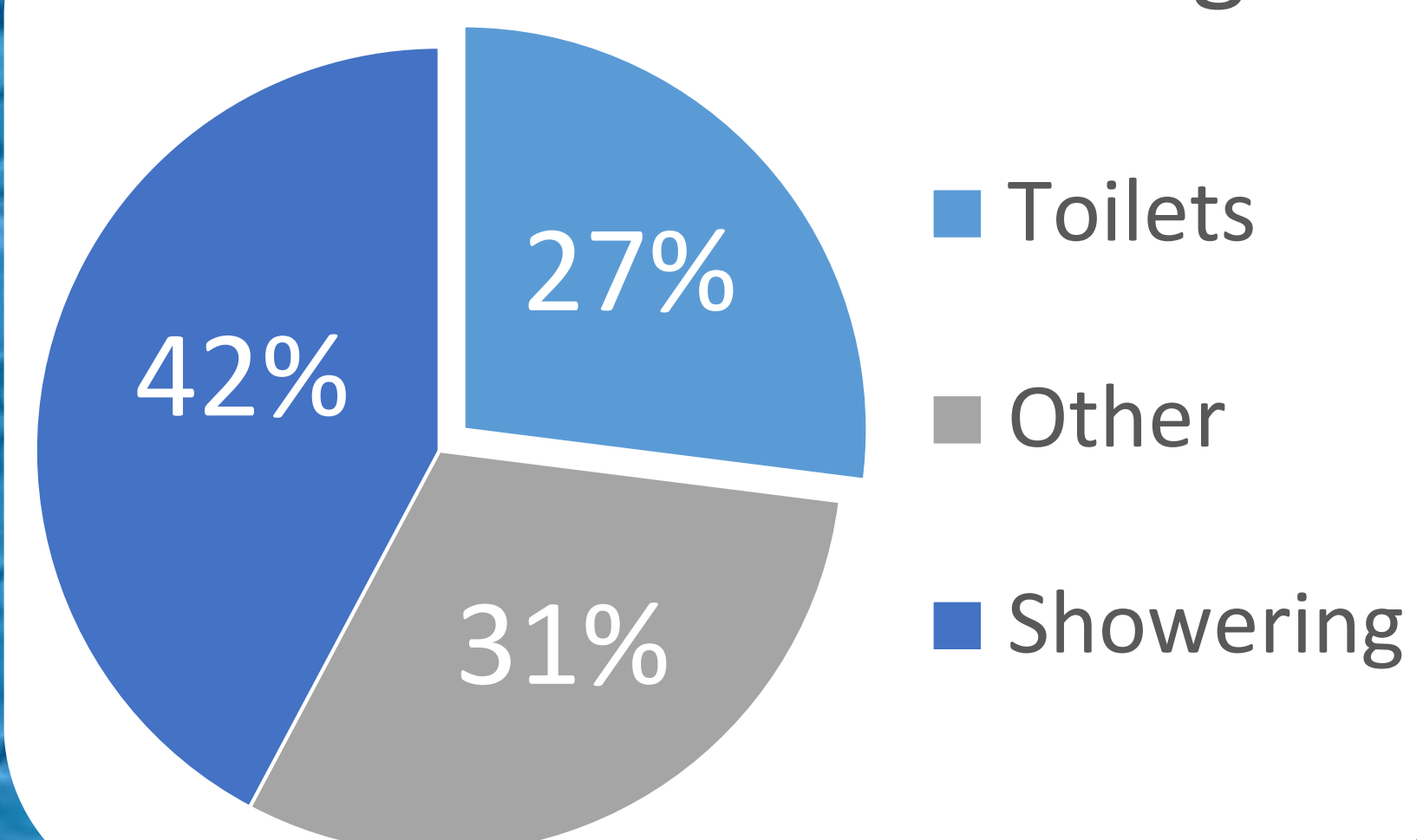
Find a feasible way to cut down the amount of runoff on the WPI campus through rooftop rainwater collection.

Methods

- Interview Elizabeth Tomaszewski
- Find location for system
- Data collection
- Data manipulation
- Specifics of system

Data

Residential Water Usage



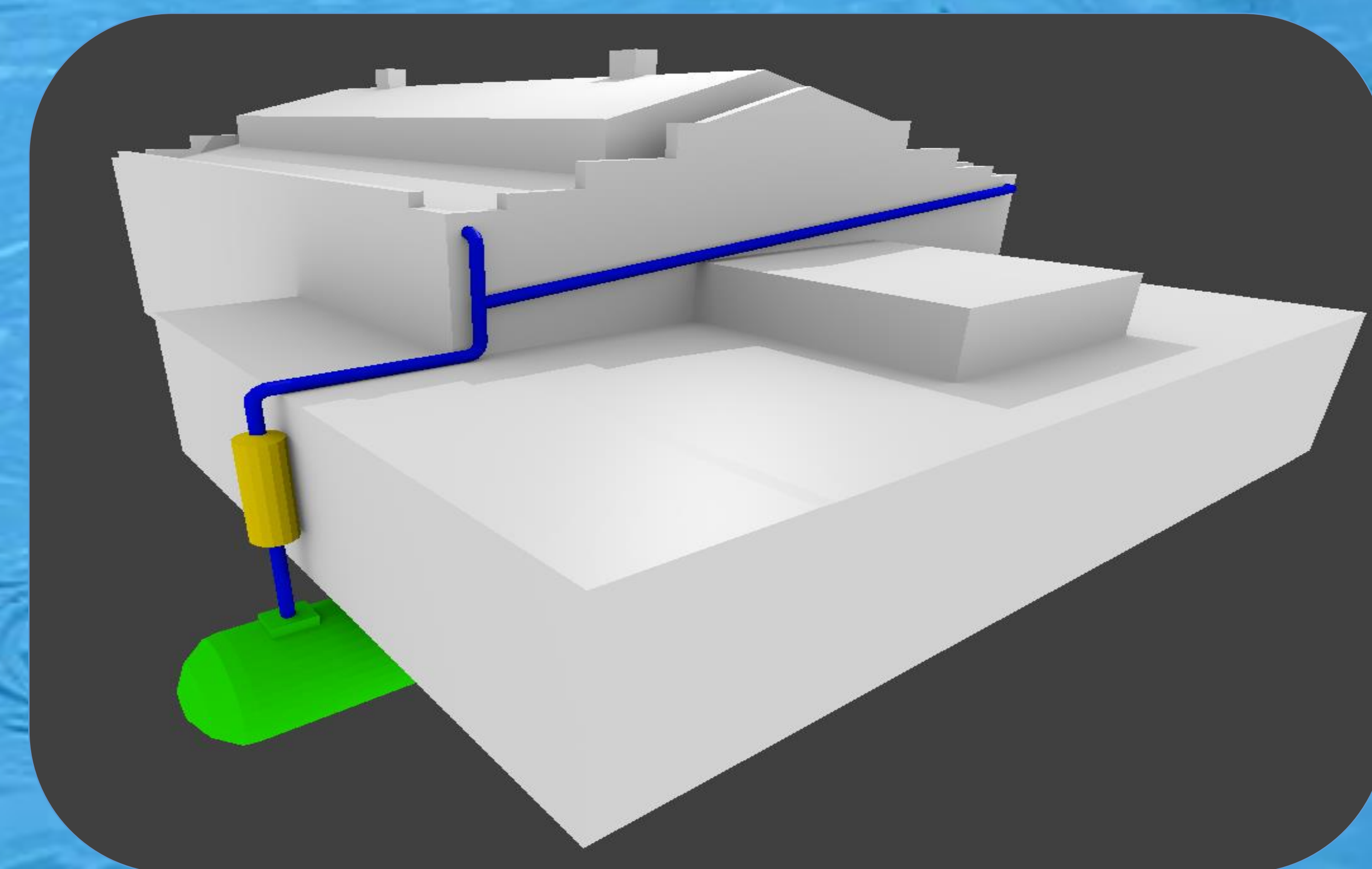
48in
of rainfall per year
48,125 ft³
of water potentially collected

99%

Of toilet water usage will be covered with our collected water

Solution

Our solution is a rainwater collection system designed for the rooftop of the new Foisie Innovation Studio.



Next Steps

- Water quality laws
- Filtration research
- Cost vs Benefit
- Implementation?

Acknowledgements

Thank you to Elizabeth Tomaszewski for providing us the necessary data and Peter Emidy for creating the model.