

Water Budget of a Subecosystem at UF

ESOH340 Class Project

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Objective

The objective of the water budget project is to make our campus be more sustainable by having water use efficiency.

The goal is to find all the inputs and outputs of water in the area we studied on campus. Once we find the inputs and outputs, we can find and think of ways to save water and make the university of Findlay more sustainable with water.

Importance

The importance of this project is immense. By doing the field research we got to know what's the biggest source of water use and what's the biggest source which we can use more efficiently to reduce our waste of water. This way we are not just becoming environmentally sustainable but also economically sustainable which serves the goal of our project.

Study Site

The location of the ecosystem we studied was on the campus of the University of Findlay. Mostly the northern part of campus. Our boundary on the east side was Corey Street, the south boundary was the sidewalk in front of the business building, the western boundary was Morey Avenue. we found every thing that used water and where that water came from and where that water went too.

(location, boundary, composition, usage, and other relevant features)

List of the buildings & other use of land

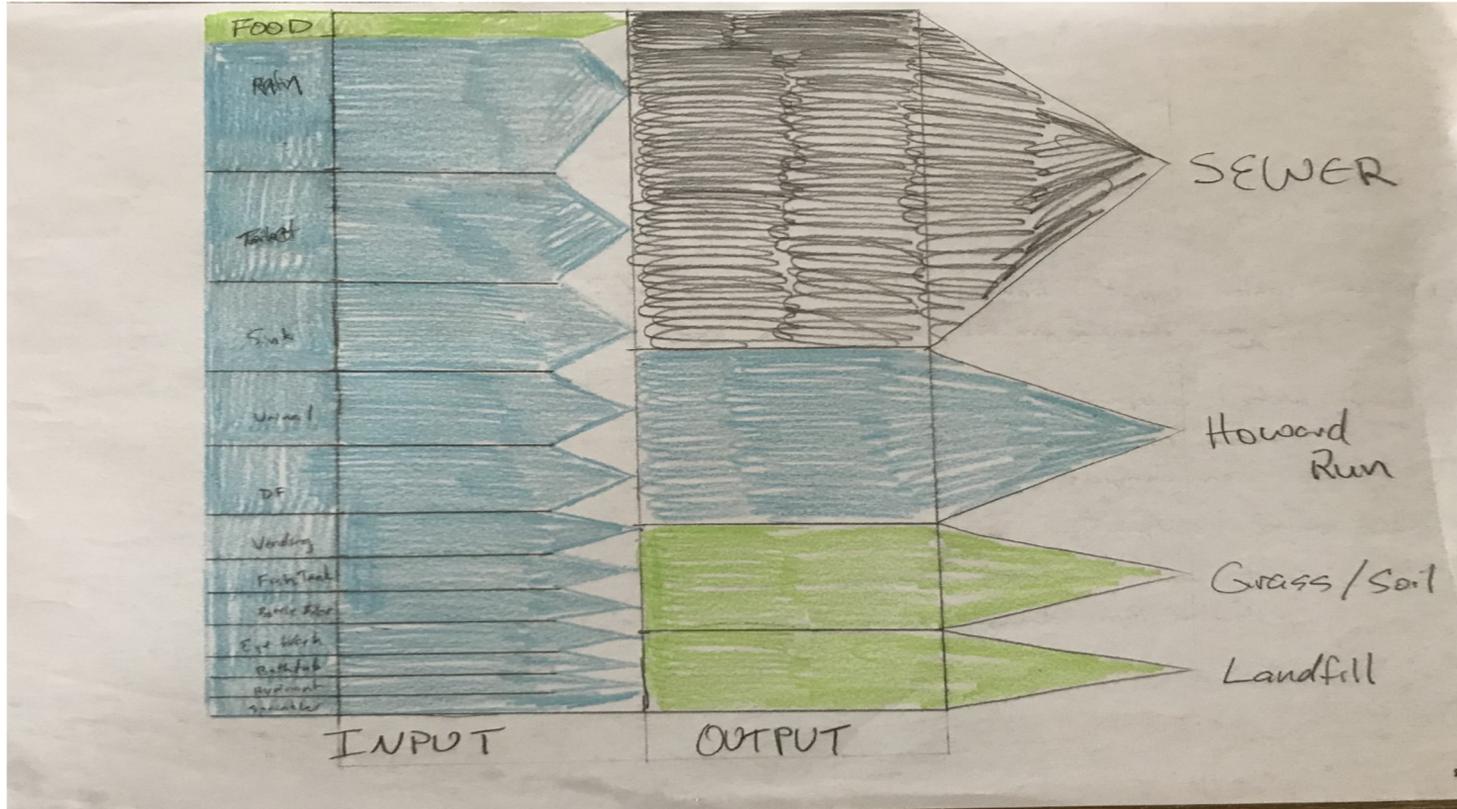
- davis building
- business building
- howard run
- Lawns
- Davis parking lot
- Brewer parking lot
- Japanese program house
- International house
- Buford house
- Computer house
- Pre vet house
- Math house
- IELP house
- English faculty house

Methodology

We walked inside each building and observed every class, bathroom, and dining hall. We found every input and output of water such as sinks, toilets, fountains, etc and documented it.

Findings

Input/Output Features

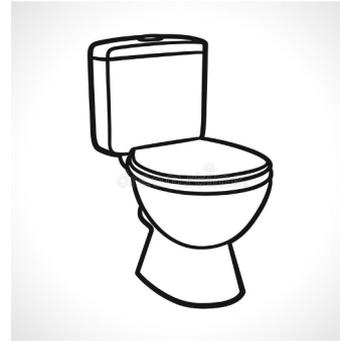


Top 3 input fluxes

1. Rain



1. Toilets



1. Sinks



Top 3 output fluxes

1. Wastewater Treatment Plant



1. Howard Run



1. Grass/Soil



Reducing Input fluxes

1. Toilets



1. Sinks



1. Drinking fountains



Reducing input fluxes: Suggestions

1. Capture Rainfall and Use

- Hook gutters up to rain barrels
- Water grass and plants
- Use for toilets and sinks



Reducing Output Fluxes

1. Amount of water going to treatment plant

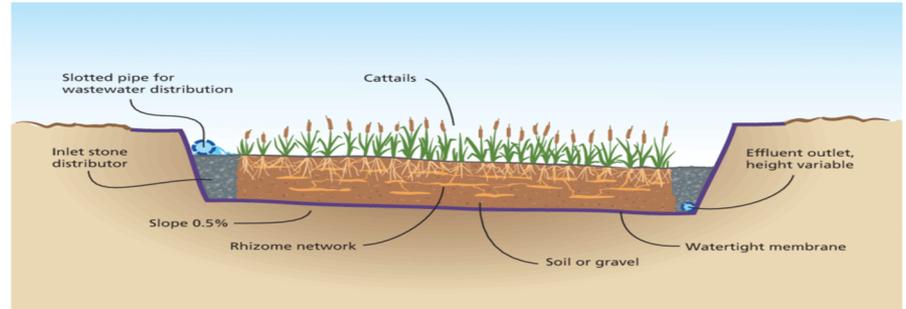


1. Amount of water discharged into Howard Run



Reducing Output Fluxes: Suggestions

1. Constructed Wetland
 - a. Clean own water
 - b. Don't have to send offsite



1. Collect water being discharged into Howard Run
 - a. Wasting water
 - b. Use water on campus



LIMITATION



1. Not having the funds
2. Evaporation
3. Not having enough data
4. Not enough time or people
5. The coronavirus
6. Weather

Future study

1. Doing study, taking in consideration what we can do and what can not
1. Fixing a plan and implement it
2. Do long term study
3. Studying community needs and culture
4. Researching possible funding options

