Stony Run Walking Trail Support

Zachary Ellis, Chloe Frantz, Marissela Gomez, Amanda Hinton, Alexander Holt
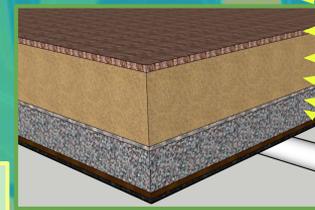
Problems:
- Section of the Stony Run trail has frequently been waterlogged and floods during heavy rain events
- Results in erosion and widening of the path as people seek a way around the muddiest areas
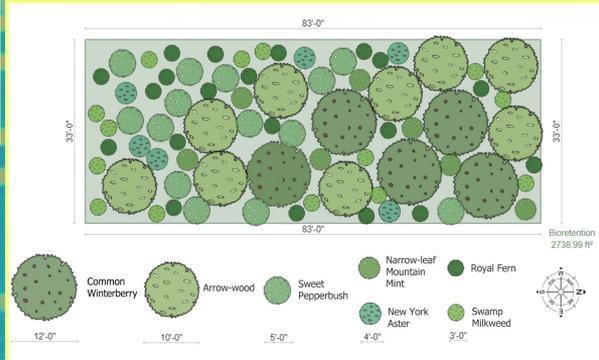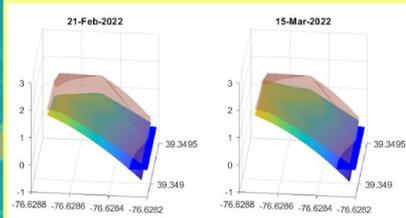- Invasive species

Objectives: Understand the underlying causes of the problems, why previous fixes have not been successful and design a solution to
1. Manage the persistent waterlogging and flooding of the area
2. Manage erosion of the trail
3. Facilitate local efforts to establish and maintain a native pollinator wildflower meadow

Data Collection:
Water table monitoring
Infiltration tests
Visual inspection
Community discussion

Hydraulic Conudctivity (in/hr)	
Well 2	0.205
Well 3	0.457
Well 5	1.307

21-Feb-2022 / 15-Mar-2022

Modelling

Solution: Bioretention Basin

Mulch (0.25 ft)
Filter Media (2.5 ft)
Small Gravel (0.25 ft)
Large Gravel (1 ft)
Geotextile
Impermeable Boundary

Bioretention 2738.99 ft²

Common Winterberry
Arrow-wood
Sweet Pepperbush
Narrow-leaf Mountain Mint
New York Aster
Royal Fern
Swamp Milkweed

83'-0"
33'-0"
12'-0" 10'-0" 5'-0" 4'-0" 3'-0"

95'
83'