

Eagle Scout Project - Floating Wetlands Proposal summary and maintenance - Colin Cooper

Summary

I will build six floating wetlands at Spy pond, McClennan Pond, and at The Arlington Reservoir, two at each. They will be constructed out of 4" diameter Corrugated Polyethylene pipes filled with 1 liter plastic soda bottles, Polyethylene mesh with 1 inch square holes, burlap to hold the soil in place, and zip ties for holding it all together. Two layers of the mesh are zip tied together around the outside of the other materials to hold them together. The islands at McClennan pond will have 3' by 4' dimensions, the islands at Spy pond and The Reservoir will have 3' by 6' dimensions. These floating islands will be anchored to the bottom of the pond using polypropylene rope and cinder blocks. Plants will be installed by cutting a slit in the top of the mesh and sliding them in.

The plants I will use are Swamp Milkweed, Marsh Marigold, Joe-Pye weed, Swamp Rosemallow, Northern Blue Flag Iris, Cardinal Flower, and Sensitive Fern.

Maintenance

I would water the plants daily for the first two weeks to give enough time for the plant roots to reach the water. After these first two weeks I will check on the wetland at least monthly and make any repairs if necessary. For the winter months the wetland will not need any additional maintenance or docking because the wetland plants can almost hibernate in the winter yet still come back in the spring.

I hope that the floating wetlands can remain until August 2021. I will work with the conservation commission to make a decision on how to proceed from there. This could mean just leaving the floating wetlands out and letting the plants continue to grow. It could also mean splitting the plants and bringing some to the shore but still leaving the other ones to continue growing.