

PLANNING AND DEVELOPMENT SERVICES STAFF REPORT

For Planning Commission Meeting of April 7, 2015

**SUBJECT: Thurston Pond Restoration Project Site Plan for City Council Approval and Wetland Use Permit
(2350 Yorktown Drive)
File Nos. SP15-007 & WUP15-002**

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby recommends that the Mayor and City Council approve the Thurston Pond Restoration Project Site Plan.

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby recommends that the Mayor and City Council approve the Wetland Use Permit for the Thurston Pond Restoration Project.

PROPOSED CITY PLANNING COMMISSION MOTION

The Ann Arbor City Planning Commission hereby authorizes activity in the natural features open space for the Thurston Pond Restoration Project.

STAFF RECOMMENDATION

Staff recommends the **site plan** proposal be **approved** because it complies with all local, state and federal laws and regulations; the development would limit the disturbance of natural features to the minimum necessary to allow a reasonable use of the land; and the development would not cause a public or private nuisance and would not have a detrimental effect on public health, safety or welfare.

Staff recommends that the **wetland use permit** be **approved** because issuance of the permit is in the public interest, the permit is necessary to realize the benefits from the development, and the activity is otherwise lawful.

Staff recommends **authorization for activity** in the natural features open space be **approved** because it is in the public interest and the benefits of the development are greater than the detriments of the activity.

LOCATION

The site is located on the north side of Yorktown Drive, west of Georgetown Boulevard. (Northeast Area, Millers Creek Watershed).

DESCRIPTION OF PETITION

The Ann Arbor Public Schools and the Thurston Nature Center Committee are working together on a restoration project for Thurston Pond, which is located behind Thurston Elementary School in the Northeast Area. A portion of the project will be located on property owned by the Orchard Hills Athletic Club and therefore requires approval from both the City Planning Commission and City Council as the project will impact a wetland and natural features open space.

Thurston Pond is made up of about 7 acres of open water, one small, low island, and about 2 acres of shoreline wetland. A large mud flat appears when summer water levels are lowered by insufficient rainfall, and routine evaporation, and percolation into the ground water table.

The petitioners propose to restore pond health through sediment dredging, creation of a waterfowl nesting island, construction of a new pond outlet structure, and fortification of a berm on the west side of the pond with clay excavated from the pond.

Thurston Pond currently functions as a storm water retention pond that benefits the city of Ann Arbor, the Millers Creek watershed, and the Huron River. The petitioners indicate that the proposed re-grading of the pond basin would have the beneficial effect of increasing the capacity of the pond to hold storm water following major storm events. This increased storage capacity would help maintain pond levels during dry years and would have a beneficial effect on Millers Creek, which suffers from flash flows and erosion.

The proposed pond alterations are anticipated to have other benefits, including improving the island habitat, providing more deep-water habitat, and allowing the pond to be periodically drained to improve pond water and pond bottom sediment quality and to manage pond plant and animal communities. Removal of the phosphorous-laden sediments will also improve pond water quality.

A wetland use permit is requested to allow for dredging of the pond and pond fringe, which is considered to be a low-quality wetland. Authorization of activity in the natural features open space is requested to allow for construction staging to occur adjacent to the pond, off of Yorktown Drive. The staging area will be restored after completion.

The petitioners obtained a Michigan Department of Environmental Quality permit for the wetland disturbance in 2005, which expires in September 2015. The restoration work is proposed to commence in May 2015 and be completed by September 2015.

Although a Citizen Participation Meeting is not required, Thurston Nature Center will be holding a public/town hall meeting at Thurston School on April 15th at 7 pm to answer questions about this project.

SURROUNDING LAND USES AND ZONING

	LAND USE	ZONING
NORTH	Single Family Homes	R1C (Single-Family Dwelling District)
EAST	Single Family Homes	R1C (Single-Family Dwelling District)
SOUTH	Single Family Homes	R1C (Single-Family Dwelling District)
WEST	Public School	PL (Public Land)

HISTORY

The Thurston Pond Restoration Plan was prepared by the Thurston Nature Center Committee in 2005. Based on this plan, the Ann Arbor Public Schools obtained a grant from the Michigan Department of Environmental Quality (MDEQ) to prepare engineering plans for restoration of the pond. A permit was obtained from the MDEQ at that time. A portion of the originally planned work has been completed, and the remainder is proposed to be completed by September 2015, consistent with the permit deadline.

PLANNING BACKGROUND

The Master Plan: Land Use Element supports parks and recreation uses for this site.

STAFF COMMENTS

Systems Planning – The proposed 16” HDPE pipe and 16” valve will be privately owned and maintained, and will not become part of the city’s stormwater system.

Soil Erosion Sedimentation Control – Provide a note stating that both internal and external streets will be cleaned of any tracked mud immediately following each mud-tracking occurrence.

Permanent erosion control measures must be installed within 5 days of completing final grading. This should also be reflected in the sequence of construction.

Planning – The Planning Commission, upon review and public hearing, may grant authorization for an activity with the natural features open space upon the determination that the proposed activity is in the public interest, and that the benefit which would reasonably be expected to accrue from the proposal shall be greater than the reasonably foreseeable detriments of the activity, per Section 5:51 (6) of the Zoning Ordinance.

Impacts to the fringe wetlands and the natural features open space will be minimal and temporary and improve habitat. There are no other feasible alternatives to staging, access, or restoration of the pond that would accomplish the project purpose or further reduce impacts.

Thurston Pond Restoration Site Plan
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Prepared by Christopher Cheng
Reviewed by Wendy Rampson
3/31/15

Attachments: Zoning/Parcel Maps
Aerial Photo
Site Plan
3/16/15 ECT Letter

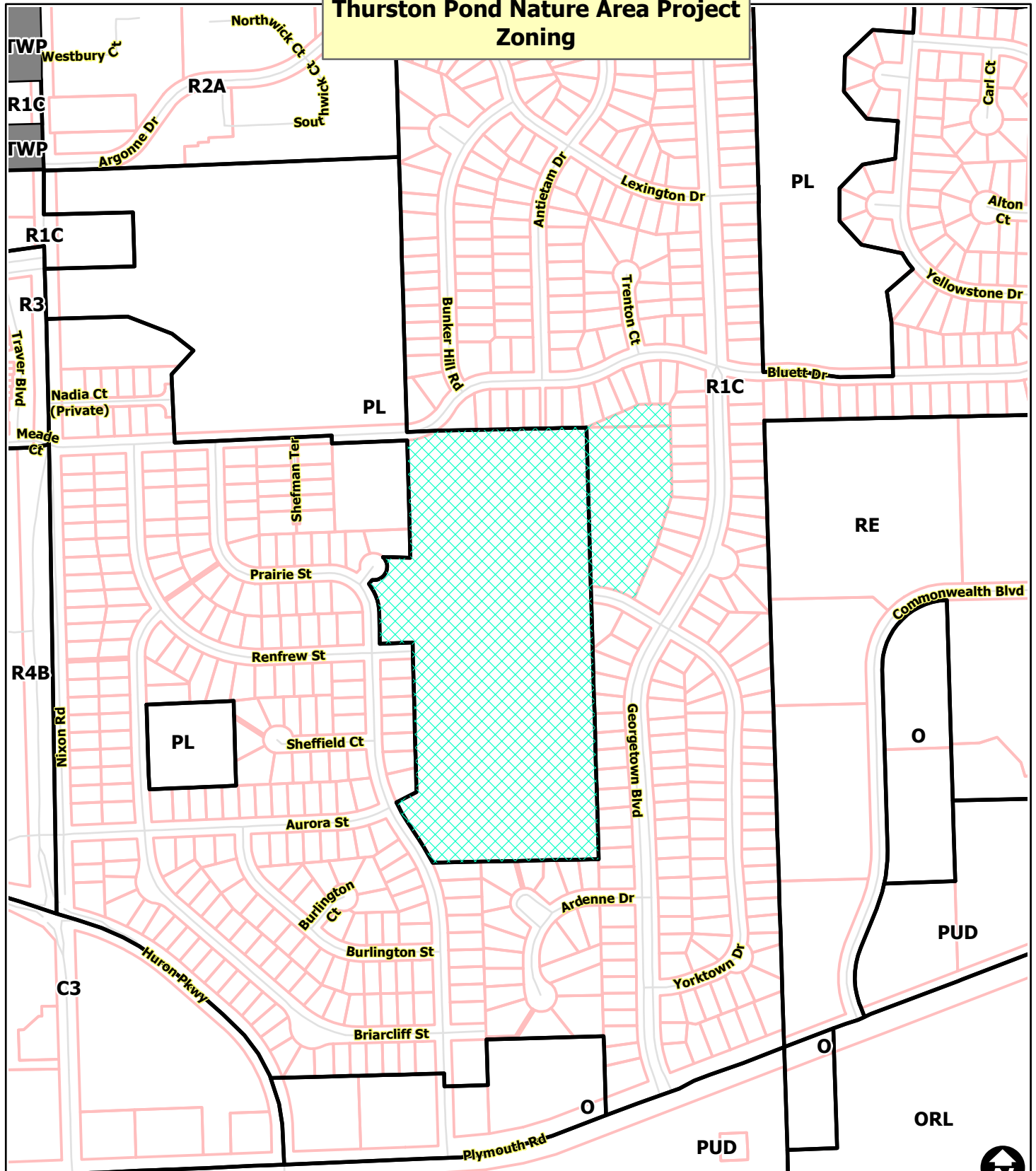
c: Petitioner: Thurston Nature Center/Ann Arbor Public Schools
2555 S. State Street
Ann Arbor, MI 48104

Petitioner's Agent: Marty Boote
2200 Commonwealth Blvd., Suite 300
Ann Arbor, MI 48105

Owner: Orchard Hills Athletic Club
P.O. Box 131277
Ann Arbor, MI 48113

Systems Planning
File Nos. WUP15-002 & SP15-007

Thurston Pond Nature Area Project Zoning



Zoning Districts

- Township Islands
- City Zoning Districts
- Railroads
- Parcels
- Huron River



City of Ann Arbor Map Disclaimer: Map Date 3/13/2015

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Thurston Pond Nature Area Project Aerial



-  Railroads
-  Parcels
-  Huron River



City of Ann Arbor Map Disclaimer: Map Date 3/13/2015
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THURSTON POND RESTORATION PROJECT

THURSTON NATURE CENTER

ANN ARBOR PUBLIC SCHOOLS

ANN ARBOR, MICHIGAN

3 WORKING DAYS
 BEFORE YOU DIG
 CALL MISS DIG
 1-800-482-7171

CITY OF ANN ARBOR SITE PLAN REVIEW 03-17-15

140494-0200
 ECT PROJECT NUMBER
 EC/AB/MB DESIGNED BY MB CHECKED BY
 ECPH DRAWN BY MB APPROVED BY

SHEET TITLE
SITE WORK LOCATION PLAN

SCALE: 1" = 80' @ 22" x 34"

NORTH SHEET NUMBER
2



NOTES: WETLAND BOUNDARY MAPPING WAS CONDUCTED OUTSIDE OF THE GROWING SEASON AND WAS BASED ON VEGETATION, INCLUDING MATTED HERBACEOUS VEGETATION. HYDROLOGY AND SOILS COULD NOT BE EVALUATED DUE TO FROZEN GROUND PRESENT AT THE TIME OF MAPPING.

ALL SITE SOILS ARE MIAMI LOAM (MMb), 2 TO 6 PERCENT SLOPES.

AERIAL PHOTO SOURCE: GOOGLE EARTH (ACCESSED MARCH 2, 2015)

Image © 2015 DigitalGlobe

P:\Thurston Nature Center\CAD\Site Work Location Plan_3.2.15.dwg



March 16, 2015
ECT No. 140494-0400

Chris Cheng
City of Ann Arbor
Planning & Development Services
301 East Huron Street
Ann Arbor, MI 48107-8647

Re: Site Plan Review Petition Cover Letter
Thurston Pond Restoration Project - Ann Arbor Public Schools

Dear Mr. Cheng:

Environmental Consulting & Technology, Inc. (ECT) is acting as agent for the Ann Arbor Public Schools (AAPS) in making this petition for City of Ann Arbor (City) site plan review and approval under the Natural Features Ordinance. The AAPS is proposing to restore Thurston Pond in the Thurston Nature Center. Most of the project is occurring on property owned by the AAPS. However, some of the work is being conducted on property owned by the Orchard Hills Athletic Club (OHAC). Per the attached e-mail dated 3/11/15 from Wendy Rampson, Planning Manager, the City is only reviewing the portion of the project located on private property owned by OHAC. The private property owned by OHAC is managed as part of the Thurston Nature Center, which operates the TNC as natural feature open space and an outdoor education center for AAPS; it is open to the public. AAPS's interest in the property owned by OHAC is management of the TNC for these purposes. OHAC has been a cooperating land owner in this regard for a number of years and has submitted a project authorization letter to the City. The letter is attached to this petition cover letter.

The project involves restoration of the pond through sediment dredging; restoration of an outlet channel via sediment dredging and invasive species removal (narrow-leaf cattail and phragmites); creation of a waterfowl nesting island in the pond via placement of dredged sediment; and fortification of a berm with clay excavated from the pond. A new, valved 18-inch HDPE outlet pipe will be installed underground beneath the restored outlet channel to allow pond dewatering for the restoration work and future pond maintenance. The pipe will require a tap of the City's catch basin. The remainder of dredged sediment will be placed in upland areas around the pond and seeded with a temporary seed mix for stabilization. The Thurston Nature Center will be planting the sediment disposal areas with native seed mixes containing grasses and forbs with the help of volunteers.

Natural features associated with the project include Thurston Pond, a natural open water pond with a surface area of 7.44 acres and OHWM of 906.7 feet. The pond receives storm water from multiple City of Ann Arbor storm sewer outfalls, and discharges to a City catch

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basin that drains into an 18-inch storm sewer also owned by the City. Thurston Pond is fringed by emergent and scrub-shrub wetlands. There are woodlands located south and west of Thurston Pond, but not on property owned by OHAC. There are no landmark trees located on OHAC property and no trees will be cut as part of the project. The project area does not contain threatened and endangered species or regulated 100-year floodplains. Pond access and staging will occur within Thurston Pond, the wetland fringe, and the 25-foot open-space buffer. Dredging within Thurston Pond represents a wetland impact. Therefore, the AAPS is petitioning for City approval of the site plans, wetland impacts, and natural feature open space. A completed wetland use application is attached to this cover letter. The AAPS has already obtained a permit from the Michigan Department of Environmental Quality under Parts 301 and 303 of the Natural Resource Protection Act. A copy of the permit is attached.

Natural feature impacts are related to dredging in Thurston Pond and construction vehicle access into Thurston Pond from the designated construction staging area. The dredging will enhance the wetland feature by removing sediment accumulated from storm water inputs and creating deep-water habitat for fish, amphibians, and reptiles. The dredging will not damage or otherwise impact the pond. The outlet channel restoration will also require dredging to remove accumulated sediment, and invasive narrow-leaf cattails and phragmites that is blocking water that would normally flow from the pond into the City catch basin. Due to this blockage, the pond water level cannot be regulated at a safe level, resulting in overtopping and erosion of berms. Although the nesting island is a discharge of fill in Thurston Pond, its main purpose is to create nesting habitat for waterfowl rather than disposing of dredged sediments. Therefore, it will improve this natural feature. Construction staging and access have been located in an area where managed turf grass is close to the edge of the pond. Impacts to the fringe wetlands and natural feature open space will be minimal and temporary. Because the proposed natural feature and natural feature open space impacts have been minimized, are temporary in nature, and improve rather than degrade habitat, mitigation is not proposed. Furthermore, the only alternative consider is the no-action alternative. There are no other feasible and prudent alternatives to staging, access, or restoration of the pond that would accomplish the project purpose or further reduce impacts.

During construction, appropriate levels of soil erosion and sedimentation control (SESC) measures will be used as shown on the site plans to prevent dredged sediments placed in uplands from eroding into protected natural features and natural feature open space. Appropriate SESC measures, including proper dewatering techniques, will be used to prevent the discharge of sediments into the City catch basin and storm sewer during restoration of the outlet channel. During pond dredging, the pond will be dewatered to prevent the transport and offsite discharge of exposed/disturbed pond sediments. Sumps will be maintained within the dewatered pond to collect rain water and storm water discharges to the pond. Construction water will be managed by pumping from the sumps into filtration

C. Cheng
City of Ann Arbor
3/16/2015
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bags prior to discharge to the City catch basin and storm sewer. Within 48-hours of dredged sediment placement and final grading in upland areas, the sediments will be seeded and covered with erosion control blanket.

The proposed project will not increase traffic except temporary local construction traffic during equipment mobilization/demobilization and materials delivery, which are minimal. Because dredged sediments are being disposed on-site, off-site construction traffic will be minimized. Construction staging is planned immediately adjacent to a community pool managed by OHAC. However, AAPS has coordinated with OHAC on this issue and has specified the use of security fencing with privacy screen around the staging area to minimize impact on that adjacent land use. OHAC has reviewed these staging plans and authorized the work in the attached letter. Furthermore, pedestrian access will be maintained in and out of the Thurston Nature Center during construction via an existing sidewalk outside of the staging area. The security fencing will keep pedestrians from entering the staging area and active construction area. During equipment and material deliveries, flag men will be used to protect pedestrians and vehicular traffic.

Following City site plan approval by the Planning Commission and City Council, the construction contractor will be required to apply for all other necessary City permits, including traffic control, plumbing, and sewer tap permits as necessary.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Martin J. Boote
Environmental Scientist

Attachments:

Wendy Rampson E-mail Dated 3/11/15
OHAC Authorization Letter
Wetland Use Application
MDEQ Permit #

Cc: Frank Commiskey, TNC
Tim Gruszczynski, AAPS
Mario Demetrio, AAPS

THURSTON POND RESTORATION PROJECT - 2015

Summary

The current Thurston Pond Restoration Project is a continuation of the restoration of Thurston Pond that began in 2005. A 2005 grant from the Michigan Department of Environmental Quality (MDEQ), assisted Ann Arbor Public Schools (AAPS) in preparing an engineering plan, obtaining a permit from the MDEQ and doing work to protect the pond and improve the quality of stormwater entering the pond. All work that was in the plan was not completed due to the need for additional funds.

The current work proposed to be done in 2015 is to complete the work started in 2005 and includes some minor modifications to the original MDEQ permit. MDEQ approved the minor modifications March 26, 2014. Under the MDEQ permit all construction must be completed by September 30, 2015. MDEQ has said this permit cannot be renewed.

As this is an ongoing project we are requesting that any reviews needed be accomplished in an expedited effort so that this project can proceed with solicitation of bids, selection of contractors, obtain final approvals from the AAPS Board of Education and construction can be completed by September 30, 2015.

History

The Thurston Pond Restoration Project had its beginnings when the Thurston Pond Restoration Plan was prepared by the Thurston Nature Center Committee in February 2005. JFNew, a consulting firm, assisted the Ann Arbor Public Schools in applying for a grant with the Michigan Department of Environmental Quality (MDEQ). The MDEQ approved a grant for the project and assigned it a MDEQ Tracking Code: 2005-0014. Under this grant the Basis of Design Thurston Restoration Project, was prepared by JFNew. This report was submitted to MDEQ on September 8, 2008.

September 15, 2010, the AAPS applied for a permit from the MDEQ for Thurston Pond outlet modification and berm repair. The State of Michigan Department of Natural Resources (DNRE) issued a Public Notice in response to the AAPS application. The proposal in the Public Notice stated the permit application was "... to drawdown Thurston Pond and dredge a channel and wetland for the purpose of repair and restoration of a berm and adjacent forested areas." The Public Notice was issued October 18, 2010.

Permit 10-81-0062-P was issued January 24, 2011 by the MDNRE. That permit expires January 24, 2016.

All the work described in the permit and approved plans was not completed under the grant from the MDNRE. The grant work did provide new information about the pond and was the basis for revision to the Thurston Pond Restoration Plan prepared in 2005. A new report prepared by the TNCC, titled Restoration of the Thurston Pond Ecosystem, was finished July 12, 2013. This plan supported completing the work originally identified in the MDNRE permit and recommended additional work that would improve the pond ecosystem and its value as an educational resource for the AAPS.

It was recognized that the recommendations in the Restoration of the Thurston Pond Ecosystem would require modifications to the MDNRE permit. AAPS applied February 21, 2014 for a revision to MDEQ Permit 10-81-0062-P. MDEQ approved the minor modifications March 26, 2014.

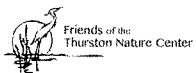
ECT was contracted by AAPS to prepare the modifications to the original plans for the pond restoration. Revised plans and specifications were completed in February 2015.

The current work that is planned for 2015 are minor modifications of the work started in 2008. The minor modifications include; widening the outlet channel by 4 feet, adding a 50 foot long 16 inch diameter pipe to help with maintenance, identifying the areas of the pond that will be re-contoured, and adding a sedimentation basin to benefit Miller Creek and Huron River with containment of high phosphorous laden sediment.

Additional Information

Additional phases for restoring Thurston Pond are also planned. These phases will restore plant and wildlife habitats, control invasive species and involve AAPS students, teachers and neighbors in expanding the AAPS STEAM program and natural sciences teaching curriculum.

The City of Ann Arbor has been kept aware of the effort to restore Thurston Pond. The City of Ann Arbor received copies of the MDEQ permits, assisted in the installation and maintenance of the swirl concentrators on stormwater inlets to the pond, connected neighborhood Ann Arbor City storm sewers and footing drains to Thurston Pond and is kept informed through the Millers Creek Action Team (MCAT) meetings and informal contacts with the Mayor and council member.



Thurston Nature Center

Ann Arbor, Michigan

