

MARY DELL POND REHABILITATION

East Goshen Township

March 7, 2019

TIMELINE



May 2017

CB plants 12 trees to control erosion and cool water temps - inhibit algae blooms.;
Concerns from residents about trees blocking views and reverting to marshy wetland

June 2017

Township to undertake a comprehensive study of all 6 ponds

Fall 2017

As part of 2018 budget process, the BOS agrees to rehabilitate all 6 ponds, order undetermined

May – June 2017

Change.org petition started/230 signatories

July 2017

BOS accepts proposal from NLT to evaluate the ponds

TIMELINE



February 2018

NLT issued final report: "[Study of Ponds](#)"



March 2018

Rick Trailles (NLT) presents report to CB. BOS announces order of pond rehabilitation (Marydell #1). 13 volunteer member pond committee created

June 2018 - present

[Marydell Pond Committee](#) meets 7 times and works with Township staff/engineer to develop plan



June – Sept. 2018

Township staff/engineer obtain necessary permits

Fall 2018

PW drains pond and removes outfall structure. Dredging unsuccessful due to extreme rain



TIMELINE



March 2019

Pond Committee to present to Marydell residents and BOS

Mid-to-late Fall 2019 (est.)

PW to plant native plants, grasses and trees around pond with direction from Pond Committee

Summer 2019 (est.)

PW to dredge pond, install forebays and temp. seed the spoils

Early 2020 (est.)

Additional plantings around pond. Township to develop long-term maintenance plan for landscaping with input from Pond Committee

LANDSCAPE CONCEPT



Goals

- ◆ Preserve existing natural vegetation where possible
- ◆ Encourage native species
- ◆ Filter run-off
- ◆ Nutrient reduction
- ◆ Goose control
- ◆ Long term maintenance considerations
- ◆ Decrease mown turf areas
- ◆ Shade the southern exposure of pond to reduce thermal warming
- ◆ Establish Community resource - give families a place to fish and increase home values
- ◆ Optimize views from Barker Drive
- ◆ Provide multi season interest plantings
- ◆ Provide planting to attract birds and provide habitat
- ◆ Remove invasive species from site

INVASIVE SPECIES REMOVAL



Trees



Mimosa (*Albizia julibrissin*)



Vines



Oriental bittersweet (*Celastrus orbiculatus*)



Porcelain berry (*Ampelopsis brevipedunculata*)

INVASIVE SPECIES REMOVAL



Shrubs

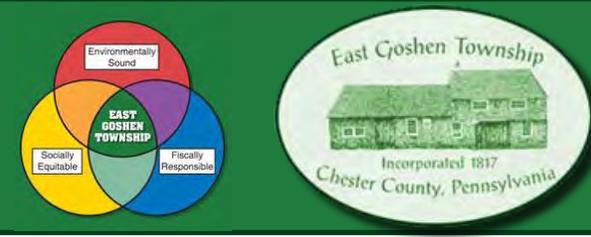


Tartarian honeysuckle (*Lonicera tatarica*)

Multiflora Rose (*Rosa multiflora*)



LANDSCAPE CONCEPT

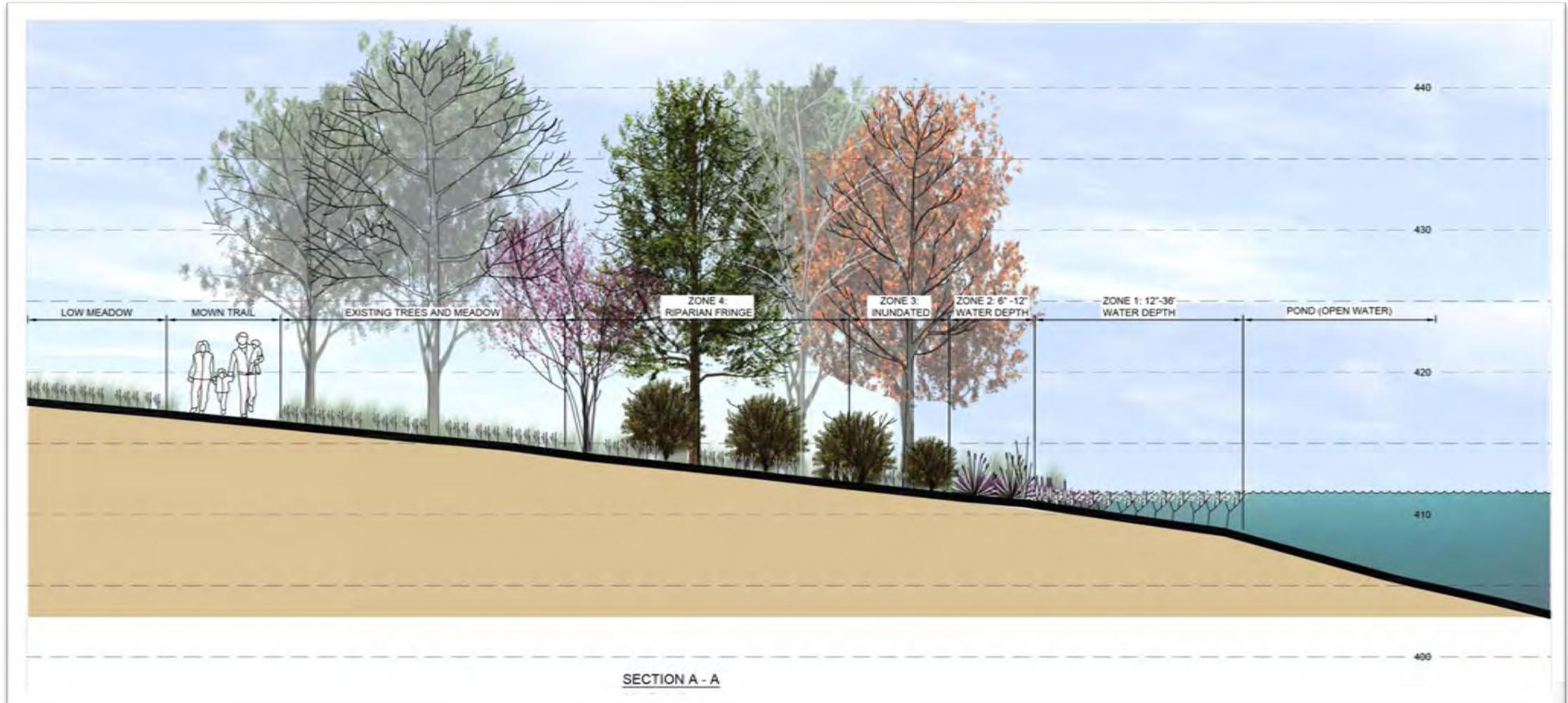


- ◆ Preserve views of pond
- ◆ Provide access to pond
- ◆ Low native wildflower & grasses meadow
- ◆ Zone vegetative buffer approach surrounding pond
- ◆ NO wetland disturbance
- ◆ Informal mown lawn paths

LANDSCAPE CONCEPT



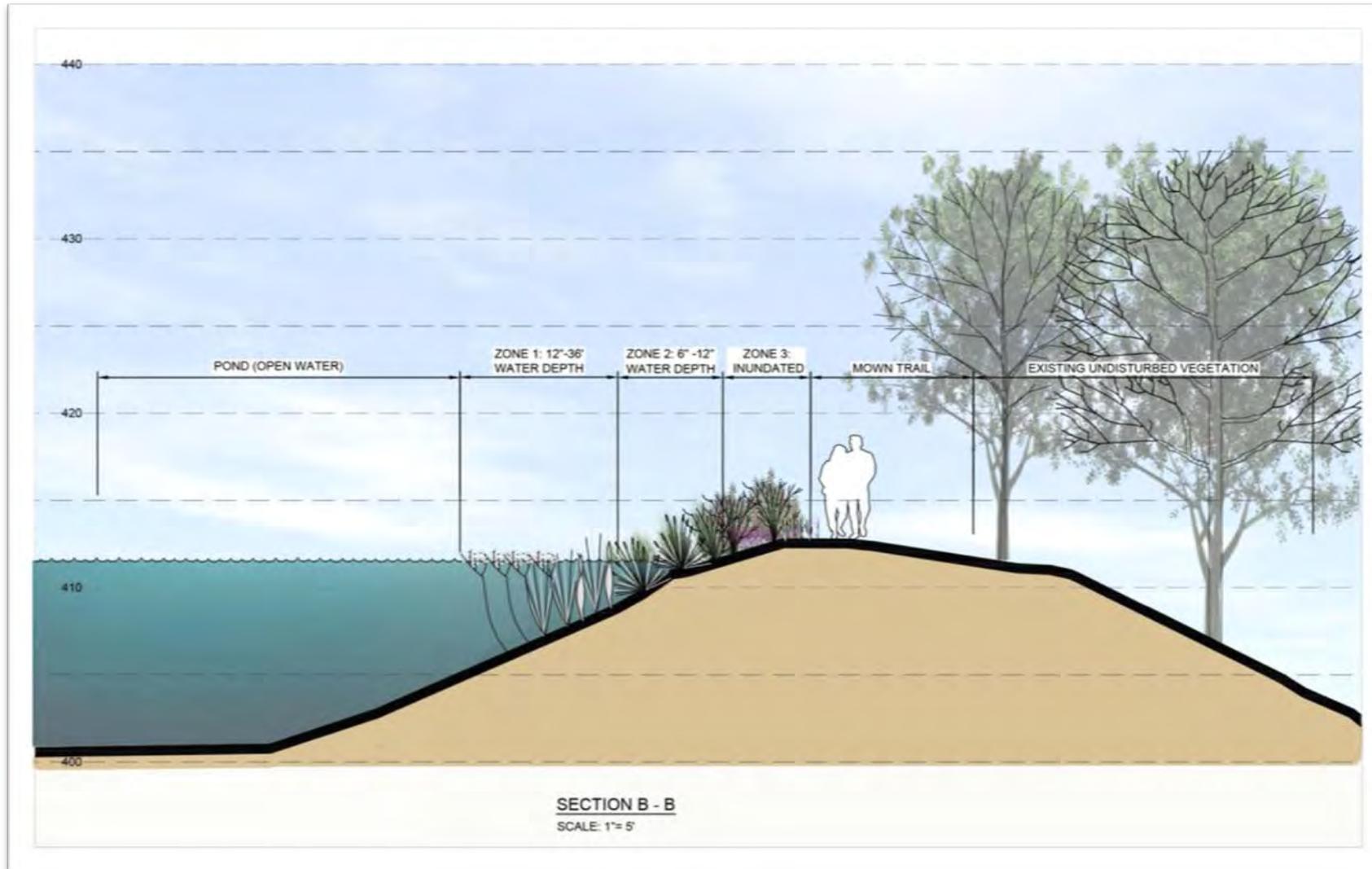
Section A



LANDSCAPE CONCEPT



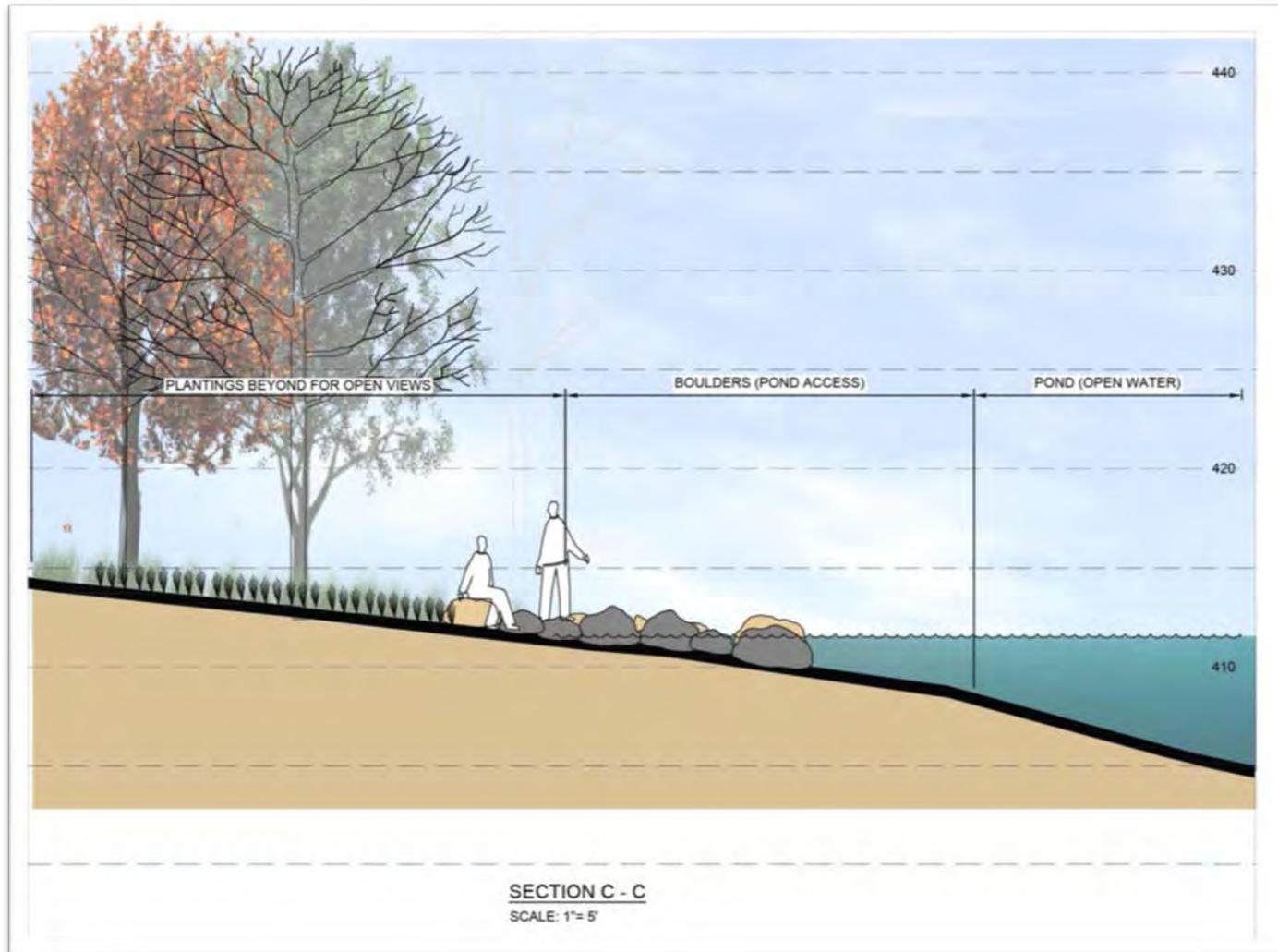
Section B



LANDSCAPE CONCEPT



Section C



LANDSCAPE CONCEPT



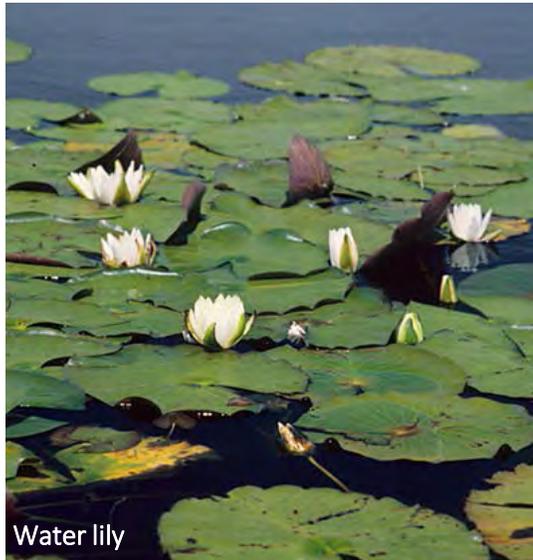
Zone 1: 12" – 36" water depth

- ◆ water lily (*Nymphaea odorata*)
- ◆ duckweed (*Lemna* spp.)
- ◆ duck potato (*Saggitaria latifolia*)
- ◆ sago pondweed (*Potamogeton pectinatus*)
- ◆ redhead grass (*Potamogetonperfoliatus*).

Zone 2: 6" – 12" water depth

- ◆ water plantain (*Alisma plantago-aquatica*)
- ◆ three-sided sedge (*Dulchium arundinaceum*)
- ◆ managrasses (*Glyceria* spp.)
- ◆ soft rush (*Juncus effusus*)
- ◆ arrow arum (*Peltandra virginica*)
- ◆ smartweeds (*Polygonum* spp.)
- ◆ pickerelweed (*Pontederia cordata*)
- ◆ many bulrushes (*Scirpus* spp.)
- ◆ giant bur-reed (*Sparganium eurycarpum*)

LANDSCAPE CONCEPT



Water lily



Bull rush



Pickerelweed



Soft rush



Duck potato



three-sided sedge



Zone 3: Regularly Inundated

- ◆ river birch (*Betula nigra*)
- ◆ willow oak (*Quercus phellos*)
- ◆ swamp white oak (*Quercus bicolor*)
- ◆ sweetgum (*Liquidambar styraciflua*)
- ◆ American sycamore (*Platanus occidentalis*)
- ◆ serviceberry (*Amelanchier* spp.)
- ◆ sweet bay magnolia (*Magnolia virginiana*)
- ◆ highbush blueberry (*Vaccinium* spp.)
- ◆ red osier/silky dogwood (*Cornus stolonifera/amomum*)
- ◆ grey dogwood (*Cornus racemosa*),
- ◆ arrowwood (*Viburnum dentatum*)
- ◆ spicebush (*Lindera Benzoin*)
- ◆ sweet pepperbush (*Clethra alnifolia*)
- ◆ winterberry (*Ilex verticillata*)
- ◆ inkberry holly (*Ilex glabra*)

LANDSCAPE CONCEPT



River birch



Willow oak



Serviceberry



High bush blueberry



Spice bush



Inkberry holly



Winterberry holly