

Long Duck Pond

Preserve

Fall 2016 Town Meeting

Presentation by

*Plymouth Conservation Commission
Plymouth Open Space Committee*

ARTICLE 7: To see if the Town will vote to transfer the care, custody and control of the following parcels from the Town Treasurer to the Conservation Commission for the purpose of preserving natural open space which will increase protection of the Ponds of Plymouth Well Zone II and enhance the land area within Natural Heritage & Endangered Species Program, Priority Habitat of Rare Species, while promoting passive recreation activities in Plymouth's southeastern region; or take any other action thereto.

Parcel IDs: 113-000-004-000, 113-000-007-000, 113-000-008-000, 113-000-011-000, 113-000-021-000, 114-000-020-027, 114-000-020-045D, 114-000-024-000, 114-000-025-000 and 114-000-033-000

CONSERVATION COMMISSION RECOMMENDATION: Approval (unanimous)

The Conservation Commission voted unanimously on May 10, 2016 in favor of the Article.

OPEN SPACE COMMITTEE RECOMMENDATION: Approval (unanimous)

The Open Space Committee voted unanimously on May 3, 2016 in favor of the Article.

PROJECT SUMMARY:

The Conservation Commission and the Open Space Committee are recommending transfer of 10 Tax Title lots [zoned Rural Residential (RR)], located east of Bourne Rd., west of Long Pond Rd., south of Justine Rd. and north of Lunn's Way. Conveyance of these properties will preserve one hundred and sixteen (116) acres of undeveloped open space, portions lying within the Aquifer District, that abut open space lands owned by Wildlands Trust, The Plymouth Conservation Commission as well as lots under the care and custody of the Board of Selectmen.

The transfer of these parcels to Conservation Status will aid in protecting the Zone II of The Ponds of Plymouth Well Site and create an area for passive recreational use while securing rare and endangered species habitat through the enhancement of a wildlife corridor along Bourne Rd. It will also limit the number of additional septic systems in the area.

Based on current Assessors data, there are approximately 3,800 either built or planned single family homes within the surrounding area including the AD Makepeace, Redbrook Development Project.

Transferring these tax title properties to the Conservation Commission will support the following goals from the Plymouth Master Plan:

• **Control Sprawl**

Sprawl is large-lot low density development that consumes open space.

• **Protect the Environment**

Plymouth is a center of biodiversity and lies above the largest aquifer in Massachusetts.

• **Preserve Character**

Plymouth's diverse natural and built landscapes include historic sites, village settlements, rural landscapes, forests, coastline, ponds, streams, wetlands, and cranberry bogs. These landscapes define Plymouth's character and must be preserved.

• **Encourage Economic Development**

Economic development provides jobs for Plymouth residents and tax revenues to help pay for town services.

• **Balance Costs and Growth**

Compact commercial and residential development costs less than sprawling development, both in terms of town service costs and impact on the land.

• **Improve Quality of Life**

Residents want opportunities to live, work, and play in town and to enjoy Plymouth's uniqueness.

PROJECT INTENT

For the past year, the Plymouth Open Space Committee has been studying ten (10) tax title properties located north of exit 2 and south of exit 3, bounded by Bourne Rd., Long Pond Rd., Halfway Pond Rd., and Lunn's Way. It is surrounded by residential developments on all sides with approximately three thousand eight hundred (3800) established or approved homes.

Wildlands Trust, Conservation Commission and the Department of Conservation and Recreation (DCR) currently own parcels in this area which together total one hundred and sixty-six acres (166). Conserving these tax title properties would add one hundred and sixteen (116) acres, creating a protected preserve of two hundred and eighty-two acres.

The transfer of these parcels to Conservation Status will aid in protecting Zone II of The Ponds of Plymouth Well Site. It will limit the number of additional septic systems in the watershed for Little and Great Herring Ponds as well as the watershed for Big Sandy Pond and White Island Pond (as well as other smaller ponds).

All of the parcels are within a designated Natural Heritage Priority Habitat. This natural open space provides homes and food for wildlife. It is populated with many different species of native plants and trees. Trails crisscross the parcels creating an area for passive recreational use while securing rare and endangered species habitat through the enhancement of a wildlife corridor along Bourne Rd.

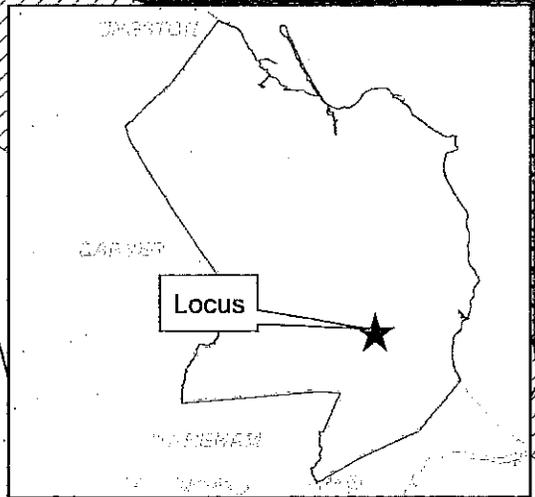
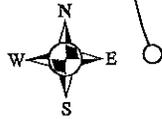
One of the most important issues in Plymouth is economic development. We need additional tax income from light industrial and commercial businesses. We need quality jobs for our residents. We can accomplish this through Smart Growth, which includes protecting open space. Do we need to conserve more natural open space in Plymouth? Absolutely.

Land in conservation increases our ability to attract visitors through eco-tourism. It preserves the character and beauty of our town while helping to attract new business. It safeguards our aquifer and limits traffic congestion. It protects the many plants, birds and animals which delight both residents and tourists.

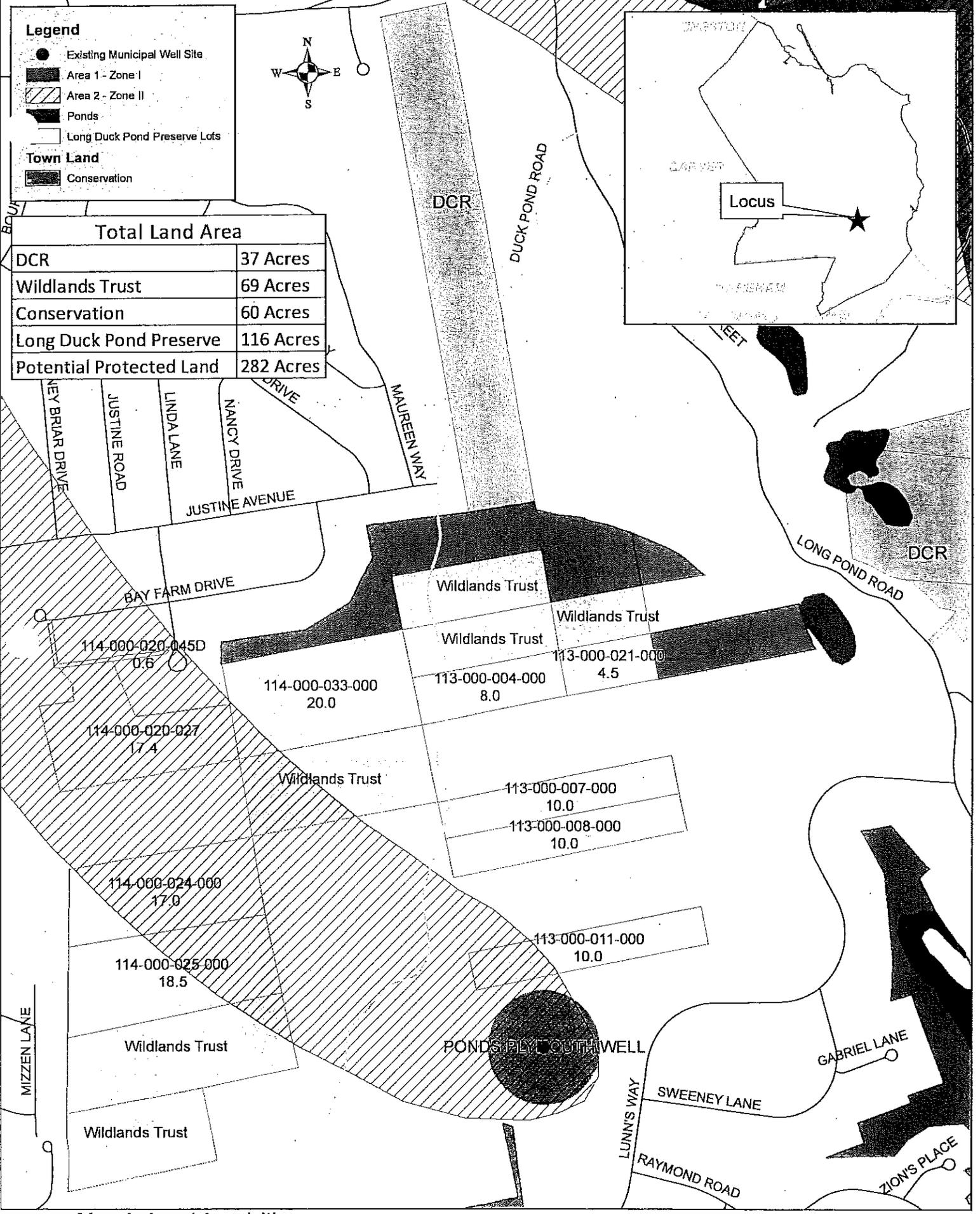
The Open Space Committee was created by Town Meeting and charged with the mission of acting in "...an advisory capacity to the planning board and the representative town meeting with respect to the preservation of natural open space...." The Open Space Committee and the Conservation Committee recommend conserving these one hundred and sixteen acres for our benefit as well as the benefit of future generations.

Legend

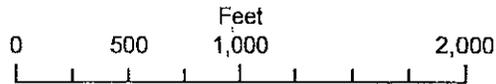
- Existing Municipal Well Site
- Area 1 - Zone I
- ▨ Area 2 - Zone II
- Ponds
- Long Duck Pond Preserve Lots
- Town Land**
- Conservation



Total Land Area	
DCR	37 Acres
Wildlands Trust	69 Acres
Conservation	60 Acres
Long Duck Pond Preserve	116 Acres
Potential Protected Land	282 Acres



Map A: Land Acquisition
Long Duck Pond Preserve Lots
Area Open Space & Aquifer Protection



Department of Planning & Development
 Data Sources: MassGIS
 & Plymouth Engineering Dept.

Long Duck Pond Preserve Ecosystem

The proposed Long Duck Pond Preserve is a forest ecosystem of trees, shrubs, herbaceous plants, fungi and animals along with a substrate of soil, water, organic debris and rocks. This ecosystem functions as a living infrastructure that supports our community in a number of ways:

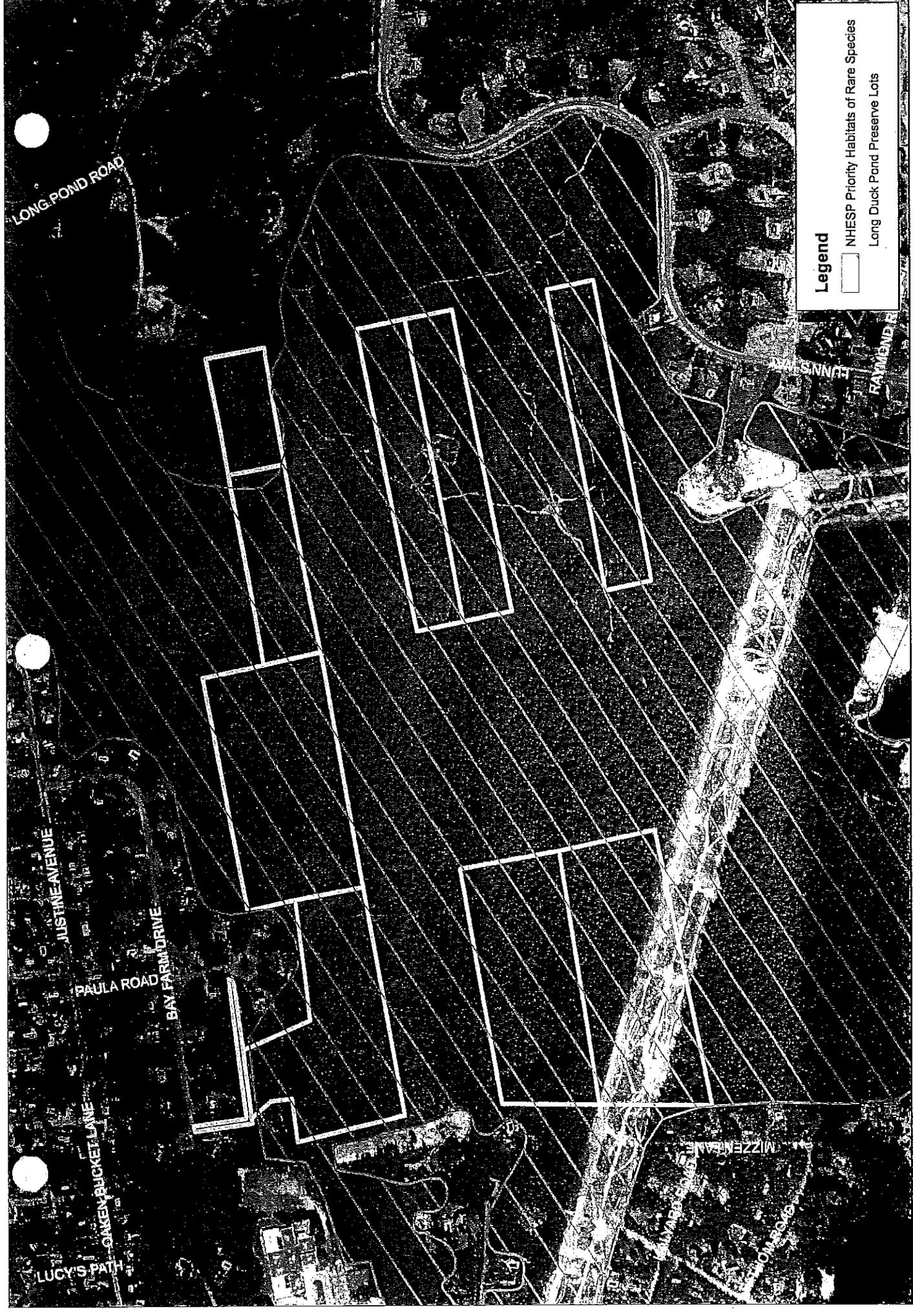
- a. Helps to provide a reliable source of clean water and fresh air¹.
- b. Limits storm water and flooding.
- c. Protects biodiversity (the number and variety of plants and animals located within a specified geographic region).
- d. Supplies food and homes for billions of mammals, insects, birds, amphibians, plants and micro-organisms.
- e. Provides space for outdoor recreation, such as hiking, running, biking, birding and photography.
- f. Creates essential wildlife corridors.
- g. Stores a significant amount of carbon and offers shading and cooling.

One acre of forest absorbs six tons of carbon dioxide and puts out four tons of oxygen. This is enough to meet the annual needs of 18 people. The net cooling effect of a young, healthy tree is equivalent to ten room-size air conditioners operating 20 hours a day, according to the U.S. Department of Agriculture.

In essence, forests support the "common wealth" of Plymouth — the shared natural resources on which we all depend.

Plymouth is losing many acres of forest each year. Town Meeting has the rare opportunity to protect 116 acres of forest at a minimal cost. These acres are contiguous with other parcels of conserved forest, which will create a woodland preserve of 282 acres.

¹"Decades of research into the forest-water connectionunderscore the fact that one of the lowest-cost options for water sustainability is to retain forests for the pollution filtration and storm water retention benefits they provide." *Changes to the Land: Four Scenarios for the Future of the Massachusetts Landscape*

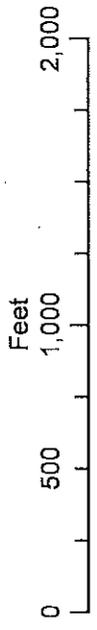


Legend

- NHESP Priority Habitats of Rare Species
- Long Duck Pond Preserve Lots

**Map B: Land Acquisition
Long Duck Pond Preserve Lots
Aerial View with Natural Heritage**

Department of Planning & Development
Data Sources: MassGIS
& Plymouth Engineering Dept.





Herring Ponds Watershed Association

P.O. Box 522, Sagamore Beach, MA 02562
Preserving our Ponds and Watershed

To: G. Hooker, Plymouth Conservation Commission
B. Hall, Plymouth Open Space Committee
From: Brian Harrington, President, HPWA
Re: Long Duck Pond Preserve

Date: August 7, 2016

The Herring Ponds Watershed Association strongly endorses the Article to transfer ten tax title lots to the Conservation Commission to establish the proposed Long Duck Pond Preserve (LDPP).

The Herring River Watershed, including Little and Great Herring Ponds, is a state designated Area of Critical Environmental Concern (ACEC), and deserves extraordinary attention by *all levels of government* in conservation planning and environmental protection. A critical source of the water that flows through the Herring River ACEC is the Plymouth-Carver Aquifer (PCA), a sole-source aquifer which flows under the LDPP and into the Watershed from the northwest. A Sole Source Aquifer means that it is the only source of drinking water for residents. It also is the source of almost 80% of the water that passes into and through the Herring River ACEC.

The PCA is very susceptible to pollution. Because it is located in a vast area of sand and gravel, water flows freely throughout its boundaries. Once pollution occurs, cleaning up the aquifer is costly. (Costs for the Sagamore Lens on Cape Cod are expected to exceed \$1.4 billion.) Accordingly, a coordinated protection effort is the best and most economical way to preserve the quality and quantity of our drinking water and of our Herring River ACEC.

Through this Article, Plymouth has an extraordinary opportunity to assure the protection of the aquifer that flows under LDPP and into the Herring River Watershed by preserving the huge aquifer recharge area within the LDPP boundaries.

We urge our Town Meeting to approve the Article which establishes the proposed Long Duck Pond Preserve.



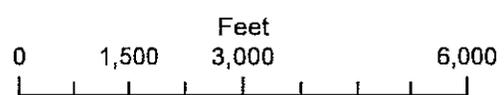
Legend

■ Long Duck Pond Preserve Lots

Watersheds

--- Red Brook

... Herring Ponds



Department of Planning & Development
 Data Sources: MassGIS
 & Plymouth Engineering Dept.

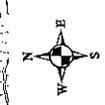
SW Plymouth Watershed Areas





Legend

-  Nearby Built Lots
-  Long Duck Pond Preserve Lots



**Map C: Land Acquisition
Long Duck Pond Preserve Lots
Nearby Developed Lots**

Department of Planning & Development
Data Sources: MassGIS
& Plymouth Engineering Dept.

