

# Stewart Woods

## Nature Trail



This park is named after Dorothy Stewart whose determination made this park a reality. Oakland acquired the open space that now is this park property in 2003 using a grant from the Bergen County Open Space Trust Fund. The park has a walking trail, benches and picnic tables. Park development was a combined effort of the Oakland Department of Public Works, Eagle Scout projects by Riley Beach, Adam Franks,

and Matthew Richards of Troop 49, the Environmental Commission, the Shade Tree Commission, and Vanderbeck Tree Service. A matching grant from the Bergen County Open Space Trust Fund helped fund the development of the park.

### 1 Burr Oak

In front of you is the oldest known Burr Oak in Oakland. A tree like this is deciduous meaning that it loses all its leaves for part of the year. Dropping their leaves allows the trees and shrubs to survive the harsh and cold winters.

Look at the leaves. See how they are rounded? This means that the tree is a member of the White Oak Family. If the leaves had pointed edges, it would mean the tree is a member of the Red Oak Family.

Look around the ground and see if you can find any acorns. Acorns are the seeds produced by the Oak tree. The acorns are an important food source for many animals including deer and squirrels.



### 2 Pre-1800 History

The Lenni-Lenape are a Native American Tribe who inhabited New Jersey long before the Europeans arrived. The tribe probably hunted here and perhaps had their village in this area. Arrow heads have been found here in the past and who knows what could be found in the future.

It is believed that General Washington's troops camped out in these very woods during their campaign against the British during the Revolutionary War.

### 3 Large Glacial Erratic

Large ice sheets grew and melted in North America at least 10 times within the past 800,000 years. The large ice sheets are called glaciers. The most recent time where there were glaciers here was between 11,000 and 18,000 years ago. If you could have been there you would have been standing on top of a mile thick layer of ice.

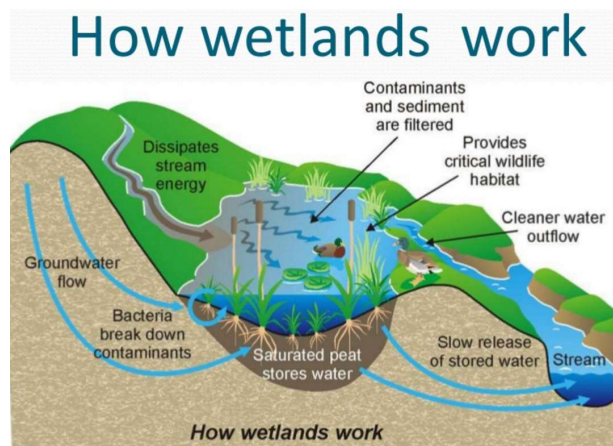
As the glaciers slid from north to south, they picked up rocks on the way, some of which are from as far away as Canada. As the glaciers melted, they dropped all the rocks, like this large rock in front of you. These rocks are called glacial erratics.

*At erratic, turn left to head to stations 4 & 5, or continue straight to skip to station 6.*

#### 4 Wetlands

Wetlands are a unique ecosystem, home to many species not found anywhere else. They are important in regulating the movement of water. Water collects in wetlands and is slowly released during the year as it moves from the highly concentrated areas (wetland) to areas with lower concentrations of water (forests and fields)

Wetlands are sensitive ecosystems with unique species. Some species are especially sensitive to pollution and are called "indicator species". Indicator species are plants and animals that scientists used to determine the presence of pollution in an ecosystem. This is especially true for amphibians, which due to their thin, moist skin, are particularly sensitive to pollution. Fertilizers, salt runoff from roads, and fluids seeping out of septic systems especially detergents and soaps all leech into wetlands and will greatly affect these indicator species.



#### 5 Fallen tree brings new life

Look at the tree growing out of this stump. This is an example of succession where one plant died, and another is taking advantage of the newly opened space and nutrients from the dead tree. Each stage of succession creates the conditions for the next stage. Temporary plant communities are replaced by more stable communities until a sort of equilibrium is reached between the plants and the environment.

Along the log fungi, moss, and trees are beginning to grow. Fungi are decomposers meaning they break down dead trees and plants.

#### 6 Changing Forests

The forests of New Jersey are changing due to direct and indirect consequences of human presence. There is a significant overpopulation of deer which hurts the forest as deer eat more plants than can grow back. Deer also prefer to eat certain trees more than others. This means that some trees like Oak species are becoming less common as deer eat them. Also, invasive species, animals and plants that got moved from their original location to a new location, are hurting native plants and animals and making it harder for them to survive.

#### 7 Boulder Field/Tree Burl:

The boulder field in front of you was created by rocks deposited by the glaciers, being heaved up by annual freezing and thawing.

The giant knot in the tree over your head is known as a burl. A burl forms when a tree is damaged such as a branch breaking or being hit by a falling tree. The burl scar is made up of wood that grew around the damage to protect it. Burl wood is prized for its unique patterns of wood grain.

#### 8 The Edge Effect

Look at the woods around you. See how the woods end and it turns into a field? This is the edge of the forest. The increased sunlight allows for the growth of different species of plants which would not be able to grow in the deep forest. Edge habitats are preferred by many species such as deer where there is plenty of food and it is easy to reach the forest to hide from predators. Other animals such as song birds also prefer edge habitats due to the availability of resources such as food and materials for building nests and the closeness to forest cover.

*Created by the Oakland Environmental Commission. 2018.*

