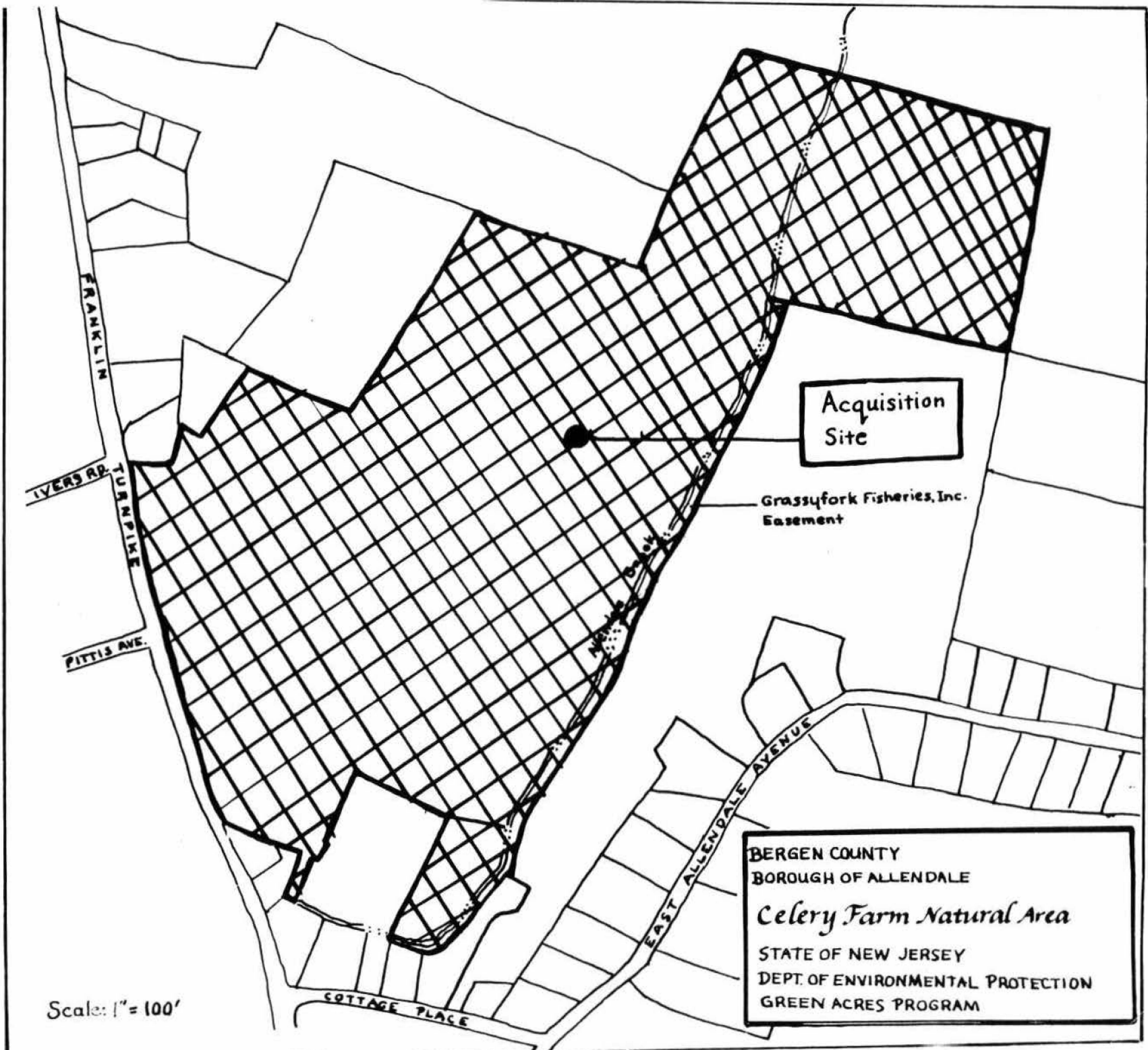


1978

**THE CELERY FARM:
Its Natural History**



Scale: 1" = 100'

THE CELERY FARM: ITS NATURAL HISTORY

The property known as the Celery Farm is a spring-fed wet area located in Allendale, New Jersey. Though no longer a farm, the tract takes its name from the fact that celery and lettuce were commercially grown there for many years prior to World War II.

The main part consists of some sixty acres and is bordered to the south by Cottage Place, to the west by Franklin Turnpike and to the east by East Allendale Avenue. The northern boundary is a wooded swamp extending almost to the Borough of Ramsey.

The purpose of this report is to give the property's history and to provide a description of its flora, fauna and soil. Its importance in flood control is also defined.

History

Before the advent of the earliest white settlers in the Allendale area, the land which now comprises the Celery Farm was covered with water, forming a lake whose shores were inhabited by Indians of the Lenni Lenape tribes. At least, such was the report circulating among local residents in the late 19th Century, according to Miss Ella M. Appert, whose father became the first recorded Celery Farm farmer in 1888. The report is strongly supported by the fact that many arrowheads and Indian artifacts have been found on the land throughout the years.

The lake subsequently dried up, leaving a marshy wetland and peat bog. Maps of the Revolutionary era designate the acreage as "Wolf Swamp", and by 1866, an enterprising owner, J. J. Zabriskie, began the work of extricating the peat from the damp meadows and selling it for fuel.

The operation was successful, at least for a time. An 1867 survey shows the area neatly divided into rectangular sections separated by ditches, with the largest ditch bordered by a narrow-gauge railroad spur leading to an engine house by the road. The peat was apparently transported along this spur from the meadows to the road, where it was loaded into wagons for the trip to the market.

This enterprise was later abandoned, however, and by 1888, when a large tract of the land was purchased by Henry J. Appert, it had become overgrown with thick brush and trees. In an article written in 1974 for the Allendale Historical Society, Miss Appert states

that "for farming purposes, it took a couple of years to clear the land and to prepare, throughout, a complete vein of drainage. Onions were the first crop!"

Later, the crops were changed to celery and lettuce, and over the years, the Appert family made continuous improvements to the farm, introduced modern equipment, and added acreage to the north of their original purchase. Between the two World Wars, the Allendale Produce Gardens, as the farm was called, was a flourishing, well-ordered enterprise of over 100 acres. It is remembered fondly by many of Allendale's present residents.

In 1943, Mr. Appert's son, who had owned the farm since 1915, retired, and sold the property and business to McBride, Inc. of Paterson. This firm continued to farm the land for several years, but eventually closed out the enterprise, and once again the Celery Farm returned to its natural state - not too different, perhaps, from the "Wolf Swamp" of Revolutionary days.

Partly woods and open fields, largely marsh with canals, ponds and the Allendale Brook flowing through and around clumps of tall grasses and mounds of higher land, the area has become a place of great natural beauty whose vistas change from hour to hour, day to day, and season to season. It is, in addition, a richly varied habitat for many wildlife species which play a vital role in the ecological life-chain, and a floodplain and water retention basin for Allendale and other communities downstream.

It has been used informally for many years by Allendale residents and others in search of the more peaceful, less organized forms of recreation and renewal, such as walking, birding, ice skating, horseback riding, butterfly collecting, sunset admiring, philosophizing, and soaking in the beauty of all the many forms of life to be found not just in remote parklands but sometimes in the very heart of a suburban town.

Fauna

Close to two hundred bird species have been seen at the Celery Farm. It is so attractive to birds that in mid-spring it is possible to observe one hundred different kinds in a single day.

Seventeen species of water fowl alone have been recorded. These are the mute swan, Canada goose, snow goose, mallard, black duck, gadwall, pintail, green and blue-winged teal, American widgeon, shoveler, wood duck, ring-necked duck, canvasback, scaup, bufflehead and hooded merganser.

The marsh attracts thousands of dabbling ducks for nocturnal feeding in the fall and spring. Non-diving ducks feed mainly at night and this is when the Celery Farm lures them in. For many years, local residents have enjoyed watching them glide in at dusk in flocks and pairs, silhouetted against the darkening sky.

Four waterfowl species.....Canada goose, mallard, black and wood ducks nest on Celery Farm land. The blue-winged teal has probably nested here as well.

The Farm's cattail marsh, and its environs, is also home to other interesting birds that are fond of water. Two rail species regularly frequent the Farm. Common, snowy and cattle egrets visit it as do their relatives.....the great blue, the little blue and the green herons. Both native bitterns are yearly visitants and the glossy ibis has been seen here on several occasions. Other birds attracted are the pied-billed grebe, three species of gull, the marsh wrens and twelve shore birds. The common snipe is common at the Celery Farm during migration.

One of Bergen County's few pheasant colonies is found here too. The peregrine falcon and the bald eagle, both endangered species, have been observed, as well as birds like the Wilson's phalarope which are rarely seen inland in the eastern United States.

Swallows abound at the Celery Farm in spring, and red-wing blackbirds are there in goodly numbers except in winter.

The tract is rich in other types of fauna as well, though the wingless animals tend to be less visible than the birds and are identified most often through tracks left in the soft soil. Among the mammals and amphibians known to dwell in the Celery Farm are both the grey and red fox, the muskrat, raccoon, opossum, grey squirrel, chipmunk, meadow vole, deer, and several kinds of turtle.

There are also fish and water snakes, rats and mice, and several species of frogs and toads, including the American toad, and the spring peepers whose noisy call is one of the happiest signals of on-coming spring.

Vegetation

The Celery Farm contains a wide variety of vegetation. This plant life is beneficial in many ways to both man and wildlife. While the roots hold the soil and prevent erosion, the leaves allow rain to sink slowly into the ground as the drops bounce from leaf to leaf. The soil acts like a giant sponge and provides a vast underground reservoir.

Grasses, sedges, cattails and phragmites are found throughout the marsh, but the swamp dogwood is the dominant shrub. In the spring its new twig growth casts a rosy haze over a widespread area, and in the fall its light blue berries are eaten by many birds, including the colorful wood duck.

Noticeable in summer are large stands of vervain, sensitive fern and swamp milkweed in the wet places. Two trees which attract over fifty kinds of birds and mammals are the boxelder and mulberry, found bordering the swamp. Along the streambanks alder and willow grow in profusion. In the rich, moist woodland the most abundant tree is the red maple. It, like its close relative, the boxelder, furnishes food for countless wild creatures. Growing beneath it and near the brook are skunk cabbage, meadow rue, trout lily, blue flag, swamp buttercup and the uncommon and beautiful cardinal flower.

On the higher, drier ground, oaks, birches, aspens, wild cherries and ash trees are only a few of the species to be found. In the open fields one sees asters, goldenrod, multiflora rose, high bush blueberry and wild strawberry. Grape vines and honeysuckle have run rampant over many of the trees and the yellow-orange stems of the parasitic dodder climb over masses of the smaller plants.

These plants are only a very small percentage of species to be found.

Vegetation in a wetland such as this helps create the richest of wildlife habitats. Here is ample food and shelter for insects, aquatic life, animals and birds; and this, in turn, affords an ideal situation for an outdoor laboratory and a place where unspoiled nature can be an unforgettable experience.

Soil

A random sampling of Celery Farm soil undertaken by the Soil Conservation Service of the United States Department of Agriculture indicates that the dominant soil consists of dark-black organic material that is completely saturated with water to a depth of at least forty inches. According to the agency's report, this soil "would be included with the Palm series that is classified as a loamy, mixed, euic, mesic Terric Medisaprist. These soils tend to have a high water table that is on or immediately below the surface for prolonged periods in most years with average precipitation!"

The report also states that "by Soil Conservation Service criteria, such soils have severe limitations for sanitary facilities, community development, and most recreational uses. These soils are rated as having good potential for a wetland and wildlife habitat!"

Flood Storage and Water Supply Amenities

The Celery Farm straddles Allendale Brook in its headwaters within the Borough of Allendale. Draining a relatively small watershed of about 1000 acres, the Allendale Brook unites with the Hohokus Brook in Waldwick, flows in a southerly direction and merges with the Saddle River in the vicinity of Fair Lawn, continues south where it empties into the Passaic River at Wallington. Allendale Brook is identified by the New Jersey Department of Environmental Protection as part of the Saddle River Watershed which, in turn, is part of the larger Passaic River Basin.

Flooding within the Saddle River Watershed has been and continues to be a severe problem. The U. S. Army Corps of Engineers in 1968 estimated that a flood of the same magnitude as that which occurred in 1903 would result in over \$15,000,000. of damage within the watershed. After any appreciable rainfall, newspaper accounts constantly remind us of flooding problems within communities downstream of Allendale: Fair Lawn, Saddle River, Lodi. As urbanization continues to spread upstream into the headwaters of the watershed, filling in flood plains with development, paving over areas which in their natural state absorb rainfall and destroying natural floodwater storage areas, floodwaters become displaced resulting in more severe flood levels and frequencies downstream.

The sixty acre Celery Farm functions as a natural storage area, or sponge, for flood waters in the upper Saddle River Watershed, thus, moderating flood flows further downstream. Drainage from above areas enters the Celery Farm and is retained for a period of time allowing it to infiltrate into the sands and gravels underlying the area. After the threat of flooding has passed stored flood waters seep from the area and flow downstream. In addition to reducing flood levels, the Farm serves to supplement stream flow during periods of low precipitation thus maintaining ecological stability and wastewater assimilative capacity downstream. The Celery Farm functions to even out flooding and draught extremes in Allendale Brook and areas downstream.

The Borough of Allendale and the Federal and State government have recognized the flood storage potential of the Celery Farm. The local master plan entitled "Borough of Allendale: Master Plan", prepared by the Planning Board of the Borough in 1976 places the area in a wetland zone and states, "Identifying this as a separate zoning district and making special restrictions on development in this area follows a precedent actually set recently by the State of New Jersey, in successive laws which give the State the authority to prohibit or restrict development in wetlands along the seashore and on flood plains throughout the entire State. This recognizes the ecological value of such wetlands, as well as the need to protect future buildings against flood hazards". The report further

states, "The intention under the proposed wetlands zoning would be to limit the use of the area only to agricultural and other open type uses, unless there is showing by the owner that filling and development will not be harmful in regard to water supply, flood hazards or other ecological considerations. It is also proposed as part of the Master Plan that a substantial part of this area be acquired by the Borough, possibly with the use of State and Federal acquisition funds". A revision of the Master Plan, "Borough of Allendale Master Plan Addendum, 1977", changed the designation of the area to one family residential stating, "The originally proposed wetlands zone is deleted along the Allendale Brook, since this area is now incorporated largely in a flood plain delineation made by the Federal Government and the State, and is thus subject to their regulations. However, the largest portion of this area, extending out to Franklin Turnpike and behind the properties on Cottage Place, is still included as a proposed area for public acquisition for conservation purposes". The Flood Hazard Area Map prepared for the Borough, although still in the process of being adopted by the Borough, shows most of the Celery Farm to be within the boundaries of the 100 year flood; a copy of the map is attached.

The need to preserve natural flood storage areas within the Passaic River Basin has recently been recognized by the New Jersey Department of Environmental Protection in a report entitled "Report of the Flood Control Strategy Subcommittee on Non-Structural Recommendations for Flood Control in the Passaic River Basin". The report prepared by a citizen advisory task force to the department recommended that the Corps initiate "a land acquisition program designed toward the purchase of areas which presently serve to store flood waters and lessen flooding conditions downstream".

It is hypothesized that the area of the Celery Farm was created by the scouring action of glaciers as they advanced over northern New Jersey. Upon retreat of the glaciers melt water carried vast amounts of sands and gravels to fill in the scoured out valleys and basins. Over the years streams flowing through such areas deposited layers of fine material on top of the sands and gravels. Upon this material vegetation grew and decomposed building up the present layer of organic material. Well-drilling records on file with the Department of Environmental Protection indicate that the Celery Farm is structured in this way: a layer of organic material overlying a deeper layer of stratified sands and gravels. These stratified formations are capable of holding significant amounts of water in the spaces between the particles, consequently, such areas are often utilized as a source of potable water. With some confidence it can be assumed that the Celery Farm is a potential source of potable water for the Borough of Allendale although test wells should be dug to verify the presence of underlying sands and gravels.