

## **Environmental Geography of Meadowbrook Neighborhood and Thornton Creek**

The Meadowbrook neighborhood and the broader Lake City area have a rich physical geographic history. In the region's relatively recent geologic history, an ice sheet taller than the buildings in the downtown area covered the landscape, and receded as recently as 16,000 years ago. The topography of the area seems to have been shaped by ancient water flows, as Thornton creek follows a relatively shallow basin, bordered by fairly steep hill slopes, as it precedes southeastward after the North and South Fork meet. Most of the northwest region became densely populated by trees, specifically evergreens like cedar, Douglas fir and western hemlock, a key attribute and viable resource for human use, both for indigenous peoples' and white settlers'. In terms of environmental impact, indigenous peoples in the areas closest to Meadowbrook neighborhood seemed to be modest. Peoples of the Duwamish tribe settled in different sites along Lake Washington; in the winter sleeping in large cedar long houses and in the summer spreading out and constructing "temporary wooden shelters woven from reeds" (Wilma, 2001). However, white settlers would prove to have far more conspicuous impacts on the natural environment

In the latter half of the 19<sup>th</sup> Century, white settlers made their way to Seattle bringing logging to the area and a variety of other environmental changes. The first roads to appear around what is now Meadowbrook were logging roads, and would eventually extend north all the way to Canada (City of Seattle, n.d.). The Maple Saw Mill stood on Lake Washington in these times at what is now Matthews Beach Park (City of Seattle, n.d.). Once the trees were cut down it was time to dig up the stumps and take up agriculture (City of Seattle, n.d.). August Fisher established a dairy farm at the current Site of Nathan Hale High School, with the South Fork of Thornton Creek running through the middle of the farm (City of Seattle, n.d.).

In 1928 the farm was sold to be made into a gold course (City of Seattle, n.d.). Which was well used until the land was sold the School district and the city (City of Seattle, n.d.). Builders working with the school district to make part of the land into a playground had a hard time grading the area because of all immense amounts of peat, and "it became necessary to remove the peat in depths of 10' in places" (City of Seattle, n.d.). Jane Adams Middle School, across the 110<sup>th</sup> street from the land referred to above was built in 1949 (City of Seattle, n.d.) and Nathan Hale was built several years later in response to "steady population growth" (Hisotrylink.org, 2013). As population increased in Seattle throughout the 20<sup>th</sup> century, streets and sewers were installed "cutting off the

natural drainage basin of Thornton Creek so that it was reduced to the flow of a brook” (Wilma, 2001). Northgate Mall was built in mid 1970s, including a fountain that was to discharge into Thornton Creek (City of Seattle, n.d.). Previously, the field across the South Fork of Thornton Creek from Nathan Hale was never fully developed until the 1968 approval of Forward Thrust when a “playfield with ball fields, tennis courts, a shelterhouse and an indoor swimming pool” were constructed (City of Seattle, n.d.).

These changes have made potentially vast impacts on the natural environment in the area surrounding Thornton Creek that is now Meadowbrook. First, deforestation loosens soil and increases erosion. At the time of intense logging in the region, Thornton creek may have experienced an upswing in sediment input, and the surrounding hills may have lost some of their structural integrity and slid away. Second, agriculture can have a variety of effects on soil and water quality. Increased waste input into streams from cattle can pollute the soil and water, a phenomenon potentially experienced by the Thornton Creek watershed. The use of cars in the area for decades also probably had adverse environmental effects as pollutants from the vehicles often are washed off the roads and into watersheds. Related to cars is the hazard of oil spills, which happened in Thornton creek in the late seventies, causing fish die offs (Henderson, 1977). Lastly, the effect of impervious surfaces cannot be understated. Impermeable surfaces used in the construction of roads, parking lots, commercial buildings, and schools all act to speed up water and wash pollutants into Thornton Creek. The footprint of this development can also be observed in comparing a recent topographic map of the area with a map from 1894. The square contour lines around the schools show where areas have been leveled. Contemporary contour lines also show the imprint of the Meadowbrook stormwater detention pond. This comparison also shows that Matthews Beach is no longer a dense wetland.

The environment also seemed to have directed development in various ways. Those who attempted to utilize the playfield area now south of Nathan Hale High school were met with stubbornly uneven terrain, which resulted in the formation of ponds (City of Seattle, n.d.). These ponds still form in this area (see artifact 7.) Roads were sometimes constructed to the curvature of the creek and yards through out this area tend to accommodate water features by constructing bridges and other beatification measures.

Along with these changes has been a reduction in wildlife. Dorothea Nordstrand, a Greenlake native who lived from 1916 to 2011, reminisced on Thornton creek calling it “ a lovely green place” where you could find “fish and lots of wildlife. Many wild birds, the darting kingfishers, and an occasional Great Blue heron to wade in the clear shallows. Squirrels muskrats, raccoons, and mink lived there” (Historylink.org, 2007). Today, wildlife in the region is limited. Many of the species Nordstrand listed are still living in the area but they are less obvious, and a few select species seem to have grown in

numbers disproportionately, namely grey squirrels and crows.

Today, the rich history of the Meadowbrook neighborhood in Seattle is hardly discernable. But while the golf course and dairy farm are long gone, aspects of the natural environment continue to collide with built environment and human activity. Tree roots can often be found pushing up segments of asphalt and vast puddles form in flatter areas near the Meadowbrook pond; a characteristic that one might expect in any other watershed of similar size. Herons can be still be found at different sites on Thornton creek and I even saw a beaver once in the Meadowbrook stormwater detention pond. These are all evidence of the natural environment before white settlers or wide spread development: the green place that Nordstrom reminisced on. There is still a lot of foliage in the region, and while the space is not entirely green what with all the houses and other buildings, one could still easily find themselves in the company of forests and shrubberies as empty lots become overgrown and once adolescent trees stretch out over the years to block the sun.

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