Sayreville, New Jersey



Marshlands along the South River, Sayreville. Photo by Author



Background

Sayreville is a mid-size borough located in Middlesex County in east-central New Jersey (Figure 1). The borough is located on the Raritan River, near Raritan Bay. It is bordered to the southwest and south by Old Bridge Township, and is approximately 24 miles southwest of Lower Manhattan and four miles southwest of Staten Island.

Until the 1870s, Sayreville was an important river port. Originally known as Roundabout—for the river bends in the area—the community was renamed in the mid-19th century for James R. Sayre Jr. of Newark, who co-founded Sayre and Fisher Brick Company in the 1850s. It was one of the many companies that took advantage of the extensive clay deposits surrounding the area. These deposits are what supported the brick industry from the early 19th century until 1970. From its inception, Sayre & Fisher Co. quickly grew into one of the largest brick-making companies in the world.

Population growth in Sayreville was also further increased in the early 20th century, when DuPont began production of gunpowder. The chemical company later opened other facilities in the borough for the production of paint and photo products.

Today, the borough remains well-known as an industrial town, with manufactured products that include paints, chemicals, and processed food. However, the addition of many technology companies and a growing residential population have changed the landscape of this central New Jersey town to reflect that of sprawling suburbs.



Figure 1: Location of Sayreville, NJ

Table 1: Summary Demographics

	Sayreville	New Jersey
Population (2010)	42,704	8,791,894
Housing units	16,393	3,553,562
Owner occupied (%)	68	65
Black (%)	10.7	13.7
White (%)	67	68.6
Hispanic or Latino (%)	12.3	17.7
Asian	16.1	8.3
High school degree (%)	91	88
Bachelor's degree (%)	33	36
Median household income	\$81,136	72,062
Poverty rate (%)	5.5	11.1

Source: Census.gov Quick Tables (2010)

Sayreville's demographics are not that different from that of the state. The portion of Whites and Blacks is similar, but Sayreville has a higher percentage of Asians and lower percentage of Hispanics. Sayreville's median income is higher than the state's and is has a much lower poverty rate: 5.5% vs. 11.1%. Finally, the portion of residents with a high school or bachelor's degree is very similar.

History of Flooding

Sayreville is located along the Raritan River and has a history of regular flooding. Low-lying areas near the River are subject to flooding associated with storm surges. Hurricane Floyd caused flooding in 1999, as did several storms since then, such as Tropical Storm Ernesto (2006) and Hurricane Ida (2009). Irene (2011) did not cause as much flooding in Sayreville as in other New Jersey communities, but it still impacted the borough. According to Barry Eck, the Municipal Coordinator for the Sayreville Office of Homeland Security and Emergency Management, a last minute wind change saved the borough from the disaster. Still, some areas were flooded, such as along Weber Avenue, an area that floods commonly. Eck said that during Irene, crabs roamed the street, and the excess water stayed for two days after the storm. According to Eck, several decades ago, people who lived in the area had dug ditches to help drain off the excess flood waters. Over time, these ditches became filled with dirt and debris. They had been ignored. It was not until 2012, after Hurricane Sandy, that the local Youth Conservation Corps dug out the historic gullies to help drain off the excess water. Hurricane Sandy caused extensive damage in Sayreville.

On October 29, 2011, Hurricane Sandy made landfall in New Jersey. The storm surge entered Raritan Bay, flooding homes and forcing the evacuation and rescue of dozens of residents by the Sayreville water rescue team. Sandy's floodwaters reached 8.5 miles inland from the Raritan River, reaching heights of 11'9" in Sayreville.

Over 1,000 homes were damaged by the storm surge, about 300 of these were substantially damaged or destroyed. Some homes suffered 70-80% damage. Basements collapsed in over 50 homes, rendering them uninhabitable. Some of the most severe flooding occurred in two areas: Weber Avenue, where most of the homes were built in 1960s and 1970s, and the Old Bridge section of Sayreville, where many home-owners lacked flood insurance.

The Buyout

One of the more unusual aspects of the buyout was that the Federal Emergency Management Agency (FEMA) was unwilling or unable to fund the buyouts directly, since there was a federal project on the books with the Corps of Engineers to build dikes, levees and dams along the South and Raritan Rivers to control flooding. Apparently, this project has been authorized for over 20 years, but has yet to be funded, according to Eck. The problem: there cannot be two, competing, federally-funded projects for the same area: one seeking to mitigate future floods through buyouts and another seeking to control flooding with levees, dikes and dams.

To get around this obstacle, FEMA channeled the money for buyouts through New Jersey's Blue Acres program, which then funded the buyouts. The Blue Acres Floodplain Acquisitions Program, administered by the New Jersey Department of Environmental Protection, is a product of the Green Acres, Farmland, Blue Acres, and Historic Preservation Bond Act of 2007. The Act authorized \$12 million for acquisition of lands in the floodways of the Delaware River, Passaic River or Raritan River, and their respective tributaries, for recreation and conservation purposes.

Figure 2: Buyout homes and Lots in Sayreville



With the mitigation funds from FEMA, Blue Acres acquired about 80 homes on Weber Avenue and about 100 homes on MacArthur Avenue, according to Eck. Overall, about 20 homeowners who were eligible to participate in the buyout chose not to do so. For some homeowners, the problem was that they had nowhere to move, due to the fact that they could not afford to buy a house elsewhere in the community.

Initially, many homeowners did not want to move, and many people thought that since Sandy was a 100-year storm, another flood of that magnitude would not occur for a long time. But the state did not want a checkerboard pattern of vacant and occupied lots. It turned to Eck to talk directly with homeowners.

Barry Eck has worked in the community for a long time, people know him. He has been with the police department for 15 years, and was a fireman there for 40 years. Eck went door-to-door in the flooded neighborhoods to try to convince people that the buyout was a good deal for them. He stressed that with climate change, flooding was likely to get worse in the future.

"It doesn't take a rocket scientist to see that the water has been rising over the last 20 year or so," Eck said.

He also spoke to people at town meetings. Eventually, most people heeded his advice and agreed to be bought out, but not everyone.

Overall, about 180 homes were purchased as part of the buyout, mostly in low-lying, flood-prone land. The land procured in the buyouts currently is used as open space. Vacant lots sit largely unmanaged or unused for wildlife or recreation. The state wants the land to revert to its natural state, but the remaining residents in the neighborhoods prefer that the lots are planted with grass and mowed (Figure 2). On Weber and MacArthur Avenue, the occupied homes lie adjacent to vacant lots where homes were acquired and demolished as part of the buyout (Figure 3). These lots are being mowed and some are freshly planted with grass, but there is a limitation of using the vacant lands given the presence of occupied homes on adjacent lots. In addition, the sidewalks bordering the lots and the street are still present, overgrown with weeds and almost unpassable. Several homes have been vacant for over a year and are awaiting demolition.



Figure 3: Home Remaining in the Buyout Area

Figure 4 shows a buyout area in Sayreville. In the image, it appears that houses remain on many of the lots acquired by the borough as part of the buyout (as shown in Figure 2). Many of these homes have since been demolished.

Buyouts: Sayreville Borough, Middlesex County, NJ

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Figure 4: Aerial View of Buyout Area in Sayreville

Integration with Hazard Mitigation Plan

Sayreville's acquisition and razing of homes in flood-prone areas directly follows recommendations set out in the New Jersey Hazard Mitigation Plan (HMP). The state's HMP provides direction and guidance on launching hazard mitigation projects. Section 6 of the plan discusses the acquisition of properties in repetitive flood loss areas, calling for the "buyout program to acquire properties from willing sellers in repetitive flood loss areas." The HMP also states that these acquired properties should be razed and maintained as open space, thus reducing the risk of future flood waters, while keeping people and property out of harm's way.

Middlesex County participates in a multi-jurisdictional HMP, which also calls for the acquisition of homes in flood-prone areas. However, the county's HMP goes into slightly more detail than the state plan, recommending that acquired properties be grouped together so the land can be converted into usable recreational space with minor

structure restrictions. Nonetheless, many of the lots acquired in Sayreville remain as a patchwork of underutilized open space.

Integration with Land Use Plan

The New Jersey Municipal Land Use Law grants towns and boroughs in the state of New Jersey the power to enact a master plan to set land-use priorities and direction. In accordance with the Municipal Land Use Law, Sayreville created a Planning Board. However, the borough does not have a specific plan for future land use.

Conclusion

The results in Sayreville have been mixed. With the urging Barry Eck--former policeman, fireman and current emergency manager--approximately 180 homeowners participated in the buyout. The area along the river has largely been converted to open space, and the borough is less vulnerable to future storms. In addition, the borough found a creative way around the restriction of using FEMA grants to fund the buyout directly. Still, many homeowners refused to participate in the buyout, as is usually the case, thus limiting the use of the acquired lands for public open space. Most of the buyout properties lie adjacent, or very close to, marshland, and could readily be enhanced for wildlife habitat. Unfortunately, the vacant lands have been planted with non-native grasses and mowed. As a result, the buyout has resulted in a patchwork of lawns in an area along the river, scattered among still-occupied homes.

Resources Cited

New Jersey Hazard Mitigation Plan. 2014. Office of Emergency Management. Trenton, NJ http://www.ready.nj.gov/programs/mitigation-plan2014.html

Middlesex County Multi-Jurisdictional Hazard Mitigation Plan. 2010. Middlesex Office of Emergency

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