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*Chapter 3.0*  
*GARFIELD*  
*PARK*  
*RESERVATION*



Figure 1: Original Stonework

### History

Garfield Park Reservation was established as Newburgh Park in the 1890s, by Cleveland's second Board of Park Commissioners. The site was selected after deciding, in 1893, that the south side of the city lacked natural recreational areas. The Commissioners selected the densely wooded valley where Mill and Wolf Creeks intersect on property purchased from the farms owned by the Carter, Dunham and Rittberger families. The park opened to the public in 1896 and was renamed Garfield Park in 1897.

The initial landscape plan was drafted by Boston architect Ernest W. Bowditch in a romantic European style that mimicked the designs of Frederick Law Olmstead. This included walking paths, cobblestone bridges, open spaces, wooded areas, swimming pool and two artificial lakes complete with a beach. One of the park's earliest attractions was a natural iron spring. The park became so popular that in 1915, the Broadway Avenue streetcar line was extended to accommodate visitors.

Following the Great Depression, the park was improved through the Work Projects Administration (WPA) which funded a boathouse, footbridges, and retaining walls along the lakes. After the war, the

park steadily deteriorated as a result of the worsening financial condition of the municipal parks department. In the 1960s and 1970s, vandalism and neglect led to the park becoming very unsafe. Jurisdictional disputes between the Cities of Cleveland and Garfield Heights exacerbated this deterioration.

In 1986, Garfield Heights approached Cleveland Metroparks which agreed to assume management of the park and facilities. Metroparks authorities developed a restoration plan that aimed to balance the rich history of the park with ecological concerns. Some stonework was restored, while the two lakes and some other facilities were allowed to revert to more natural conditions (see Figure 1: Original Stonework). In 2002, a privately-financed restoration project connected Garfield Park Reservation with Mill Creek Falls via a 1.18 mile paved trail. Metroparks assumed management of the new facilities soon after.<sup>1</sup>

### 3.1 PHYSICAL RESERVATION

Garfield Park Reservation is located between Broadway Avenue and Turney Road, southeast of where these two streets intersect. The park is in an urban area flanked between a residential area of Garfield Heights and an industrial area along

Broadway. The park extends northward through a narrow easement to Mill Creek falls where the all-purpose trail and the park terminate (see Figure 2: Facility Map).

### 3.2 BUILT ASSETS

Garfield Park Reservation is endowed with many built assets; both new and remnants of the former city parkland. All modern structures are in good condition and heavily used. The following is a list of assets and attributes:

#### *Red Oak Shelter*

This is a permanent shelter house complete with electricity, picnic tables, and grills. A ball field, swings, and volleyball court are located near the facility. The shelter must be rented on Saturdays and Sundays for a price of \$150 and has a capacity of 140 people. As of April 2010, the facility has been heavily booked for the season (May through October).

#### *Trolley Turn Canopy*

This is a non-permanent canopy (tent) that is constructed in May and available through October. It houses picnic tables, grills, portable restrooms and has water connections. The space must be rented and is available all days of the week at a

price of \$50 for weekdays and \$100 for Saturdays and Sundays. The capacity of the canopy is 48 people. As of April 2010, the facility is heavily booked on weekends and moderately booked on weekdays.

#### *Windy Ridge*

This is a non-exclusive picnic area with a shelter house. It has grills, parking, and portable restrooms. It is also close to a ball field. There is no fee to use the shelter, so it is used heavily throughout the year.

#### *Old Birch*

This is a non-exclusive picnic area with picnic tables, grills, and portable restrooms. It is located near parking, swings, and a nature trail. It is also used often throughout the year since there is no user fee.

#### *Nature Center*

The Garfield Park Reservation Nature Center is located near the Broadway entrance in a former garage. It has bathrooms, telephones, and a picnic area outside. It is also staffed by volunteers who can answer any questions that may arise. The facility boasts an exhibit that takes visitors through the history of Garfield Park and provides information on animal species that can be found there.

The facility, however, is underutilized due to its location near the Broadway Avenue entrance of the reservation. The Turney Road entrance is the main point of entry for those visitors from the surrounding neighborhood. The three bus lines that run near the park are located on Turney Road. This means that most people who visit the nature center are those who drive to the reservation. The Metroparks user survey revealed that only 37.9 percent of people who were surveyed had ever been to the Nature Center.

#### *Mill Creek Falls History Center*

The history center is located in the northern section of Garfield Park Reservation near Mill Creek Falls. The building is an old single-family house that has been beautifully restored. The building currently houses and is owned by the Slavic Village Historic Society. Although it is not owned or operated by Cleveland Metroparks, the facility is an integral part of the reservation.

#### *Mill Creek Falls*

The overlook is a patio structure that suspends visitors above the falls, providing them with unparalleled views of Cuyahoga County's largest waterfall. The structure

itself is in good condition but is plagued by sporadic vandalism which is typically abated quickly by reservation staff. The location of the overlook is hidden from the closest road and has an unsafe feeling at times (see Figure 3: Mill Creek Falls).

#### *Unpaved Trails*

Garfield Park Reservation has five short, unpaved trails running mostly through the interior of the main part of the reservation. Together, these comprise 2.4 miles of trail that connect with each other or the All Purpose Trail (discussed below). These trails are not heavily utilized by visitors who tend to stay on the paved All Purpose Trail that circles the main part of the reservation.

#### *All Purpose Trail*

This paved trail circles the main part of the reservation and connects with the surrounding neighborhood through various spurs. The All Purpose Trail also houses multiple exercise stations that give users hints and routines that can increase their workout experience. This trail is by far the most popular attraction at Garfield Park Reservation.

#### *Mill Creek Connector*



Figure 3: Mill Creek Falls



Figure 4: Graffiti

This trail connects the All Purpose Trail with Mill Creek Falls to the north. The trail hugs Mill Creek as it winds behind the Garfield Heights and Cleveland neighborhoods that abut the stream. This access beyond this paved trail is limited as the trail runs along narrow easements provided by local property owners. This trail seems to have little usage which is probably due to the lack of signage or knowledge of where it leads. There also appears to be an issue with littering along the trail which is probably a result of low usage.

### 3.3 SERVICES

Garfield Park Reservation is home to many recreational and educational activities. Most educational activities are based out of the Nature Center while most recreational activities and programs are either on the trails or at the ball fields.

#### *Formal Recreation*

The largest formal recreational activity housed at Garfield Park Reservation is the Garfield Heights T-Ball League which is active in the spring and summer months. During this time, city youth utilize most of the ball field and picnic area facilities. Another large recreational activity hosted by the City of Garfield Heights is the annual Easter Egg Hunt.

#### *Informal Recreation*

Most recreation in the reservation occurs informally. During the day the All Purpose Trail is teeming with runners, walkers, skaters, etc. In the evenings and on weekends, the picnic shelters house barbecues and the ball fields and volley ball court are sites for pick-up games. There are also many people who enjoy sitting on benches enjoying nice weather.

#### *Formal Education*

The largest organized educational programs are Farm and Garden Day (in early June) and Bug City or Bug Day (mid August). Both are based out of the Garfield Park Reservation Nature Center but activities extend into the surrounding parklands. There are also numerous organized educational programs occurring most weekends in the spring, summer, and autumn. A short list of April (2010) activities include the following: April Fool's Day Walk (Pun-Tastic Trail), Freedom Reader's Book Club, Wildflower Folklore, The Day They Shot Lincoln historic interpretation, and Kids and Kites. All of the offered programs are listed on the Cleveland Metropark's Website or in the Plain Dealer Community Section.

#### *Informal Education*

The natural area of Garfield Park Reservation accommodates amateur naturalists and birdwatchers. There is also a waterfowl viewing area along Wolf Creek.

### 3.4 EVALUATION OF ASSETS

Of the assets listed above, most are in good shape and are adequately used by visitors. Any expansion of the physical facilities would exhaust the already heavily used parking facilities at the reservation. The only concern lies in the underutilization of the Mill Creek Connector Trail and its terminus, Mill Creek Falls. There is little signage leading visitors along the all purpose trail. In fact, many visitors do not know where it goes. Driving to the falls is even more difficult. Increasing the traffic along the trail and the Mill Creek Falls Overlook may also alleviate some of the current vandalism issues (see Figure 4: Graffiti).

### 3.5 SERVICES VALUATION MODEL

Based on the services valuation model described above, Garfield Park Reservation has a social value of \$1,866,976. This is based on the assumption of 86 hours of non-school based educational programming; 3,348 people exercising at least three times a week on park property; and 65

venue rentals per year (see Table 1: Social Valuation). This value is, of course, a very conservative estimate as many see the reservation as invaluable.

### 3.6 THREATS TO BUILT ASSETS

The only foreseeable stressor to the built environment is vandalism which is an issue at any urban park. This is especially true in underused parts of the reservation like the Mill Creek Connector and Mill Creek Falls. Parking is also a current stressor at Garfield Park Reservation.

### 3.7 RECOMMENDATIONS FOR BUILT ASSETS AND SERVICES

The following is a list of specific physical goals for Garfield Park Reservation:

- Advertise the existence of Mill Creek Falls. The Nature Center is the best venue for accomplishing this goal.
- Clearly mark the Mill Creek Connector Trail. Signs may not be the best method due to vandalism issues. Instead, mark the trail itself with paint and lead visitors on the trail and toward the falls. Let it be known that there is something spectacular at the end of the path.
- Change the orientation of the Mill Creek Falls entrance sign on Turney

Road. The current orientation leads drivers to believe that the entrance to that end of the park is to the right on Warner Road toward Broadway Avenue. The sign should be perpendicular to Webb Terrace which leads drivers to the cascade. Along with reorientation, new signage should be constructed to aid motorists toward the attraction (see Figure 5: Current Mill Creek Falls Sign).

- Relocate the Nature Center near the Turney Road entrance where most pedestrians enter the reservation. In its current location, the nature center serves mainly driving visitors who enter the park via Broadway Avenue. A good location is the point at which Garfield Parkway splits to form a circle around the park (see Figure 6: Site of Proposed Nature Center).

### 3.8 SOCIAL CONTEXT

#### *Boundary Definition*

The social context boundary surrounding the Garfield Park Reservation uses the reservation as a local neighborhood park. The field surveys reveal that the vast majority of users live within one of the three zip codes found within the social context. Since the Garfield Park Reservation began as a local city park and is generally

still used in the same capacity, the social context boundary was chosen to include the immediate residential neighborhoods, and thus the most likely users, and areas to project direct impact on the reservation.

The social context boundary is defined by a series of hard boundaries, including three railroad lines, Interstate 480 and a severe elevation change. A less severe barrier of industrial development also defines one boundary.

The northern boundary is defined by both the Norfolk rail line (heading northwest to southeast), and the CSX line (heading northeast to southwest). The western boundary is a steep hillside that separates residential zones from industrial use. East 156th street is the eastern boundary of the neighborhood, which is just west of Lee Road. Interstate 480 defines the southern edge of the neighborhood area. There are three different zip codes within the neighborhood 44105, 44125, and 44128 (see Figure 7: General Location Map).

### 3.9 NEIGHBORHOOD INVENTORY

The Garfield Park Reservation social context area is highly urbanized. This is more dramatic when compared to the context of most of the other Cleveland Metropark Reservations. While most Reservations are



Figure 5: Current Mill Creek Falls Sign



Figure 6: Site of Proposed Nature Center

found in suburban and semi-rural areas, the Garfield Park Reservation is located in direct connection to heavy industrial, material storage yards, high volume transportation networks, local retail centers, a sub-regional hospital and high density single family and low-rise multifamily neighborhoods. The six and one half square mile area that is measured in the social context boundary may be the smallest of the chosen study reservations, but the amount of human activity and population within is among the densest.

Garfield Park Reservation is found in an area that has been defined by its relation to the City of Cleveland and its topographical characteristics. The area lies within both the City of Cleveland and the City of Garfield Heights, though the bulk of the Reservation and most of the surrounding neighborhoods lie within the City of Garfield Heights.

Broadway Avenue bisects the Garfield Park Reservation social context area and is one of the highest order arterial roads within the Cleveland road system. Broadway allows for direct access to the central city from suburbs found south and east of Cleveland. Broadway Avenue is also notable in how it separates the social context area into two distinctly separate and different neighborhoods that surround the res-

ervation. The valley within which Broadway Avenue runs, as well as a main railroad line that parallels the street, reinforce this separation created by Broadway Avenue. Finally the industrial development along the rail, large land consumption by the reservation itself and a cemetery to the north and east of the reservation further widens the physical gap between the two neighborhoods.

#### *North Neighborhood*

To the north and east the neighborhood resembles those found on the southeast side of the City of Cleveland. The majority of the neighborhood lies within the City of Cleveland and much of the area within Garfield Heights sends its children to Cleveland City Schools.

A weakening industrial base that has poor access to the interstate further hampers the north neighborhood. Being hemmed in by railroads to the north, south and west and an industrial park to the east, this neighborhood is difficult to get into and out of and the streets tend to be narrow and somewhat confusing to navigate. Street patterns are disrupted by the municipal boundary that runs through the middle of the neighborhood.

#### *South Neighborhood*

Heading to the west and south from the Garfield Park Reservation lays a neighborhood that also finds a lot of use in the reservation, but a different experience is found both physically and socially.

Two differences are in the neighborhood's physical relation to the reservation and the urban fabric of the neighborhood. Garfield Park Reservation is much more closely tied to the neighborhood physically. The southern neighborhood lies just across the street from the reservation through much of their shared border. Numerous pedestrian access points are available to neighborhood residents. The grand boulevard entrance to the reservation is found in the south neighborhood. This is not unexpected both because much of the reservation was built in Garfield Heights by the City of Garfield Heights, and the southern neighborhood is largely part of the City of Garfield Heights.

#### *Surrounding Land Use*

The existence of three railroads and the Cuyahoga River valley just west of the neighborhood led this area to be developed for industrial uses. As was common in industrial development at the end of the nineteenth century, industrial sites are

strung along the rail lines and river valley. When Interstate 480 was built in the mid twentieth century, the established heavily industrial development transformed and shifted to more modern industrial sites seeking highway interchanges and the emerging mode of transportation (see Figure 8: Land Use Map).

Retail within the social context boundary is limited to traditional streetcar type ribbon development. All of the retail development services local retail needs; regional retail centers are found just south of the neighborhood boundary.

The largest section of retail development within the social context boundary is found along Turney Road. Turney Road runs through the center of the oldest Garfield Heights neighborhood north of Interstate 480. This neighborhood and its retail district reflect the era of its construction through its general lack of automobile parking availability.

Other retail sections can also be found along secondary arterial roads including Warren Road, Miles Road, East 93rd Street, East 131st Street and Garfield Boulevard. All of these are of a lower order of retail services when compared to the Turney Road District.

Other commercial activity can be found at the southern end of Broadway Avenue and along Granger Road. The nature of these businesses tends to service the industrial activity found near the interstate interchanges.

A larger retail center was recently built just south of the social context boundary. It was an attempt to create a larger regional retail service center. It is however failing at this time and seems to be burdened with significant environmental issues. The nearest regional retail option remain several miles away in either Maple Heights or on the west side of the City of Cleveland. While local retail needs can be generally met through much of Garfield Heights, higher order comparative shopping needs remain difficult for many residents with limited transportation options.

### 3.10 POPULATION AND HOUSING CHARACTERISTICS

#### *Current Demographic Data – North Neighborhood*

Demographic statistics of this area show a typical pattern found in an east side Cleveland neighborhood. The median household income for the north neighborhood was estimated below the City of Cleveland, the State of Ohio and the national

median household incomes. This number has not improved in the estimates since. Additionally the neighborhood has seen a continued decline in total population and an increase in foreclosure activity with the recent economic housing bubble. The weakening statistics reinforce a grim economic picture for a neighborhood that was weak ten years ago. A review of the sheriff sales activity maps show an area that had higher than average numbers of foreclosures when the larger housing market was relatively strong.

The racial diversity of the northern neighborhood is also typical of southeastern Cleveland neighborhoods. As of the 2000 census, this neighborhood was 95 percent African-American with several of the census block groups being entirely African-American. This is not necessarily an indicator other than the tendency of east side Cleveland neighborhoods to be isolated physically and socio-economically. It is common for neighborhoods in this part of the city to be overwhelmingly disadvantaged with few opportunities. Racially these neighborhoods all approach near homogeneity in having an African-American population (see Figures 9 through 11: Demographic Maps).

#### *Current Demographic Data – South Neighborhood*

Demographically the difference from the northern neighborhood is less substantive and more superficial. Median household incomes are somewhat higher than in the northern neighborhood, but not to a great extent. Income levels are lower than the City of Garfield Heights average, which is in turn lower than that of the region. While the residents of the southern neighborhood are somewhat better off, the difference is not enormous. In part the lack of better economic conditions is explained by an equal impact of a weakening position of the neighborhood in the greater job and industrial market. However access to regional transportation networks and general business strength is better for the southern neighborhood. This might explain the southern neighborhood's slightly better economic condition.

The noticeable demographic difference between the two neighborhoods is the racial distribution between the two. The southern neighborhood, while becoming more diverse over recent censuses, is still estimated at being over 85 percent white. When many of the east side Cuyahoga County suburbs have high levels of integration between white and black residents in lower middle class neighborhoods, the lack of diversity is to some degree notable in its uniqueness to the area in which it is

found.

Both the northern and southern neighborhoods have seen steady declines in population for several decades. This trend while still continuing is estimated to have slowed somewhat in the past ten years, both in raw numbers and in proportion to the total population. (See Figures 9 through 11: Demographic maps)

#### *Housing Characteristics – North Neighborhood*

The housing in the northern neighborhood is slightly older with much of the housing stock being built in the boom periods of the turn of the twentieth century and the 1920's.

Fortunately for the northern neighborhood, efforts have taken place to replenish the housing stock through scattered site home development. These efforts seem to have been focused on two areas, one in the eastern and one in the western end of the neighborhood. Success seems to be limited in creating market demand.

Further hampering the attempts to reinvigorate market demand for housing in the North Neighborhood is the increasing pressure created by the bursting of the housing bubble (see Tables 2 and 3: Foreclosure Tables). The result of years

of predatory loans, speculative bidding up of property and the resulting foreclosures has had a toll on the neighborhood and continues to create new problems. The most typical problems associated with vacant and/or abandoned homes are the impacts on property values, the potential for vandals or other activities that create safety, social or environmental hazards. Ultimately many of these homes end up abandoned, and thus creating vacant lots in the middle of once coherent physical neighborhoods. Unfortunately, this problem has not been new to the area, nor is it unique to the social context boundary. A similar pattern of increasing disruption created by foreclosure and vacant housing has been observed in the southern neighborhood (see Figures 12 through 14: Foreclosure Maps).

#### *Housing Characteristics – South Neighborhood*

The built environment of the southern neighborhood is different in many subtle ways that add up to a more comfortable built environment. The streets tend to be wider and the street pattern is more regular. The transition between the two municipalities is handled more smoothly within the street and block arrangements. Further, the housing stock is slightly newer and kept in better condition. The northern end of the southern neighborhood



may date from before the Great Depression, but less so in relation to the bulk of the housing stock when compared to the northern neighborhood. Much of the southern neighborhood was laid and constructed after the Second World War when normal economic conditions returned to the country as a whole. Little has changed or been added since, the one exception being the Mill Creek Subdivision in the City of Cleveland, immediately next to a section of the Garfield Park Reservation. This development still stands as one of the largest housing developments by total unit in the past thirty years.

One section at the southwestern tip of the neighborhood was recently consolidated into one landowner with the intention to develop a regional level retail center. While this has had an impact on the total housing units in the southern neighborhood, it was not a highly affluent neighborhood and it was as far from the reservation as possible within the social context boundary. It had little impact on Garfield Park Reservation. Fortunately, the land acquisition process was done on the open market using arms length negotiations.

### 3.11 HOUSING VALUATION MODEL

Based upon Lutzenhiser and Netusil's (2001) hedonic analysis of the effect of

open spaces on housing prices, value is added to the county base housing price by proximity to a reservation. These "buffers" are measured in feet and rely upon the count of single-family homes within each zone. These values are then inflated to 2009 values and normalized (by valuation model group). The neighborhood area is divided into five different ranges of 200 feet buffers. Each buffer range is measured from the Garfield Park Reservation (see Figure 15: Land Value Map).

Garfield Park Reservation is located in both the City of Cleveland the City of Garfield Heights. This differentiation causes a difference in the tax calculations due to differing tax rates for both municipalities. As such different property tax rates were used to calculate the valuation model. The property tax rate for the City of Cleveland in this neighborhood is currently 2.08 percent of total property value; within the City of Garfield Heights the rate is 2.9 percent.

The total property tax that is, in effect, created by the location of the Cleveland Metropark Reservation is estimated to be \$1,064,544 (see Table 4: Economic Valuation).

### 3.12 COMMUNITY GROUPS AND GOVERNMENT AGENCIES

The community groups and government agencies that would be amiable to working with Cleveland Metroparks Garfield reservation include Slavic Village Historical Society, governments of the City of Garfield Heights and City of Cleveland, the Ohio Environmental Protection Agency, Cuyahoga River community planning organizations, Board of Health, as well as Soil and Water Conservation Districts. In the survey process, some of the park users indicate that the park area was once much cleaner than it is today. Environmental issues cannot be avoided by the park management agency. A goal may be created for the cooperation with other organizations and agencies in developing and enhancing the reservation in both geographical and ecological levels.

### 3.13 THREATS TO SOCIAL CONTEXT

Foreclosure and the associated vacant or abandoned housing structures stand as one of the single largest threats to the Garfield Park Reservation social context area. As the housing bubble continues to collapse and generate defaulted home loans, neighborhoods such as those found near the reservation have higher than average occurrences of these foreclosures. In particular, the northern residential neighborhood within the area has abnormally

high occurrences of foreclosure and property abandonment.

The relative lack of job and business opportunity within the surrounding industrial areas when compared to peaks in the mid twentieth century, continues to keep the Garfield Park Reservation social context at a relative standstill economically. The population is now slowly diminishing and the housing stock continues to lose real value. Entire blocks of housing are weakly maintained, and need either major improvements to return to market competitiveness or replacement within the next decade. These flat to declining social and economic characteristics continue to threaten the neighborhoods and the Garfield Park Reservation's regional competitiveness.

Poor accessibility blocks opportunities for a large number of residents to come and use the Garfield Park Reservation. While not a true statement for the southern residential area, the northern neighborhood has few access points to the reservation. Additionally the lack of RTA service along Broadway Avenue forces those needing to use public transportation to ride around to the west side of the park to gain access. The difficult access could be potentially limiting the number of people who use the reservation.

Immediately southeast of the Garfield Park Reservation lies an industrial area built around the rail transportation and access to the interstate created by Broadway Avenue. The land is below street grade along this area which lends land uses to industry where visibility is to be minimized. Part of this industrial area includes the up stream of the Mill Creek which flows through the reservation. Additionally there is a defunct quarry that poses both safety and environmental hazards just east of Broadway Avenue across from the reservation.

Crime rates of the residential areas are also factors that impact the value of the reservation and neighborhoods. Crime index shows in year 2007 and 2008 that the crime rate is higher in the neighborhood than at the city and federal average. High crime rates most often directly affect the real estate market of residential neighborhoods. The value that the reservation could bring to residents and visitors depends on not only the recreational activities supplied by the park but also how safe the environment is in relation to the neighborhood.

### *3.14 RECOMMENDATIONS FOR SOCIAL CONTEXT*

The continued decline to the surrounding

neighborhoods could potentially lead to less usage of the reservation and support for the conservation of the land. Park policy moving into the future should focus on improving reservation recognition within the community. Using the Cleveland Metroparks education capacity to reach out to the surrounding neighborhood groups to expand the usage of their educational programs would create support for the Cleveland Metroparks position within the community.

The mission of the park system is conservation, recreation, and education. Protecting open space and natural areas has been a priority of those three main missions; MetroParks has required that at least 80 percent of its acreage be maintained as natural area. To maintain this ratio, conservation and maintenance teams work closely to establish acquisition and management plans.

The continued decline in industrial use within the social context may lead to opportunities to expand the park's land holding or influence to conservation of natural resources or even reclamation of environmentally abused land. Properties immediately east and south include parts of the Mill Creek Watershed that flows through the reservation. Acquisition of these parcels or combined efforts to remediate and



maintain this land in a natural state would meet many of the goals stated by the Cleveland Metroparks.

The use of land and an existing green space in the adjoining Catholic Cemetery, could lead to connecting the reservation to other local green spaces and parks.

### 3.15 ECOLOGICAL CONTEXT

The Mill Creek watershed was used to evaluate the ecological context, as it is important to look at the whole watershed and not just Garfield Park Reservation. The stream and its watershed are interrelated forms, and so the ecological context will have similar effects on surrounding communities.

#### *Boundary Definition*

Mill Creek's ecological boundary stretches through various areas in Northeast Ohio. The creek itself runs through several neighborhoods including Shaker Heights and Beachwood and flows southwest into the Cuyahoga River in Cuyahoga Heights.

The mainstream of Mill Creek is 14.4 miles of open stream and 1.6 miles that are culverted. The Ohio Environmental Protection Agency (EPA) designates the creek as a warm water habitat. It is used

for agricultural and industrial water supply, and also connects to recreation areas. The stream itself does not meet water quality standards for primary contact recreation because of bacteria levels.<sup>2</sup>

There are six tributaries to Mill Creek, all of which play a role in the collection and management of the surrounding communities. The tributaries of Mill Creek are the Mapletown Branch, Busby Brook, Johnston Parkway Branch, Cranwood Creek, Warner Road Branch, and Wolf Creek, which meets Mill Creek at the Garfield Park Reservation.

Garfield Park Reservation is in the western portion of the watershed. There are several other green spaces and recreation areas near the reservation: Cranwood Park and two quarries are to the east; Crodele Park to the west; Calvary Cemetery, northeast; and Mill Creek Falls to the north. The Ohio & Erie Canal Reservation is west of Garfield Park Reservation.

### 3.16 NATURAL RESOURCE INVENTORY

Land in the Mill Creek Watershed is divided between urban areas, residential, forests, grasses, and waterways. Most of the land is residential (59 percent), followed by urban areas at 23 percent. Grassy areas

make up seven percent of the watershed's land use, while forested areas make up 11 percent.<sup>3</sup>

#### *Forest*

The forested areas in the watershed play a very important role to the surrounding landscape. Since the area has been so densely developed, the tree canopy becomes even more vital to the neighborhoods. The trees in the area are also very mature and include species such as buckeye, sycamore, ash, willow and oak trees (see Figure 16: Forest Cover).

#### *Soil Condition, Infiltration and Erosion*

Over 32 percent of the Mill Creek Watershed contains soils that are susceptible to erosion. Soils with high levels of silt produce high rates of runoff and are easily detached and transported downstream. Modified soils make up almost 60 percent of the watershed. These soils have been mixed, compacted or otherwise altered through development and no longer resemble their former characteristics."<sup>4</sup> This is a very large issue through the entire watershed, but perhaps the most harmful in the northeast areas of the watershed including Beachwood, Shaker Heights and Highland Hills. Highland Hills has



Figure 17: Wetlands

many tributaries that channel into Mill Creek. Since the elevations of these areas are 1,100 to 1,200 feet above sea level and flow downstream to elevations of 900 to 700 feet, the velocity of the water in the stream system makes the banks much more susceptible to erosion.<sup>5</sup>

Garfield Park Reservation has a moderate level of erosion due to the natural environment, which is much better at collecting and managing storm water. Since areas upstream are much more susceptible to erosion, it will be necessary to protect their banks to not endanger the entire stream.

The soil infiltration rate in the Mill Creek Watershed is also very slow. The infiltration rate is the soil's ability to soak up water; this depends on the type of soil as well as its disturbance. The highland areas have slower infiltration rates, which could be attributed to growth as well as clay soils. The areas near Garfield Reservation are also slow, which can be contributed to the amount of housing stock in the area.

The amount of impervious surface over time has increased and changed the watershed's ability to channel storm water and runoff. The amount of impervious coverage within the riparian corridor has increased in the last 15 years from 25 percent to 28 percent. The entire watershed

has a much higher impervious surface cover at 52 percent.<sup>6</sup>

#### Wetlands

Wetlands are prominent in the Mill Creek Watershed. There are 57 wetlands on approximately 97 acres of land. The average size of a wetland is 1.7 acres, though the top ten wetlands are larger in size than the average, with 2.62 acres per each. In total, the top ten wetlands equal approximately 26.25 acres. The average wetland has a forested buffer that is low quality, with only 25 to 50 percent coverage. For the top ten wetlands, the forested buffer is in much better condition at 75 to 100 percent.<sup>7</sup>

Wetlands are important resources to restore water quality for watersheds. They act as filtering systems for pollutants as they manage storm water volume, and lessen the velocity of storm water since they can safely replenish groundwater in a natural function.

In the 2006 Cuyahoga County River Remedial Action Plan (RAP), Garfield Park Reservation was noted as the fifth ranked wetland area in the Mill Creek Watershed. The wetland is approximately two acres in size and is located along Wolf Creek; a tributary to Mill Creek. It is the location of the old pond, which has now filled in

and reverted back to a wetland. The area is still recovering, and is often plagued by storm water input, which causes silt deposits and erosion. It also has about 20 percent coverage of invasive species, most notably Reed Canary Grass. Reed Canary Grass is a very aggressive species that displaces native vegetation. It is introduced to an area though waterways, animals and people. It does little for the natural environment, as it is not a good food source for wildlife.<sup>8</sup> (See Figure 17: Wetlands)

#### Hydrology

With development in the watershed, the hydrologic system has been severely changed and is no longer a completely natural system. Mill Creek has many tributaries that have been culverted or piped underground. For the stream system, 3.4 miles have been culverted; 20.3 miles are open, natural streams; and most notably, 30.7 miles is piped. The surface water no longer drains into its tributary to flow into the mainstream. The built environment has a high percentage of impervious surfaces, and has altered how stream channels handle runoff. During high flows, the changes to the streams promote a greater chance of erosion and flooding in the watershed because there is no longer a natural habitat to manage storm water<sup>9</sup> (see Figure 18: Hydrology).



Mill Creek is receiving 25 percent less water than it should to support its beneficial uses. Since there have been so many changes to the natural filtering system, water quality has also changed over time. With lower flows on a normal day-to-day basis, there is a higher concentration of water pollution because there is not enough flow to dilute and filter the pollutants.

Pollutants in the stream can be found through sediment that smothers the natural habitat. Excessive nutrients in the water feed algal blooms and plants that clog the waterways; microorganisms eat this matter, which uses up the dissolved oxygen, killing fish and other aquatic life. Bacteria from combined sewers also play a critical role in the bacteria levels of the streams, which can sicken humans and aquatic life. Chemicals from the improper disposal of toxic products and illegal dumping, as well as trace metals are also issues for water quality.

#### *Aquatic and Animal Life*

Limited amounts of fish are located in Mill Creek. Fish including pollution-tolerant species such as creek chub, blacknose dace, and fathead minnows will be found. Fish communities in the lower Mill Creek, below the falls, are more diverse due to inter-

action with the Cuyahoga River. Diversity in the upper creek areas diminishes due to pollution and the waterfall that prohibits upstream migration.

Animals in the watershed area include deer, rabbits, squirrels, redtail hawks, turkey vultures, and songbirds. Since few species are found in such a densely populated area, the less urbanized cities in the watershed have a greater variety or population of species. No rare, endangered, or threatened species are known in the Mill Creek Watershed.<sup>10</sup>

#### *3.17 ECOLOGICAL VALUATION MODEL*

Based on the valuation model, the ecological services that the 114 acres of forest in Garfield Park Reservation provide is approximately \$2,772,590. The highest service provided was carbon storage, which was nearly 1.8 million, followed by storm water control at \$783,637. Forested areas also support biodiversity and habitat, which has a value of \$124,454. Air quality, hydrologic services, and soil formation/retention added to the overall ecosystem services, and had a total of about \$35,000 combined (see Table 5: Ecological Valuation).

Since the surrounding neighborhoods are

so dense, it makes sense that the carbon storage is so high for Garfield Park Reservation. Storm water management is a key issue to the success of the watershed and its neighborhoods; this figure proves that forested and natural areas best collect and manage storm water runoff.

#### *3.18 THREATS TO ECOLOGY*

##### *Loss of Tree Canopy*

From 1994 to 2000, there was a 16 percent reduction in the tree canopy in the riparian zone. In the whole watershed, the canopy cover has diminished by approximately 32 percent during that time, mainly from development and the natural death of trees.<sup>11</sup> Tree canopy helps store and filter storm water, recharge groundwater and provide habitat. Streams benefit in water quality when there is a higher level of tree canopy in the surrounding areas.

##### *Invasive Species*

There is also a relationship between forest cover and exotic plant species; the loss of forest cover facilitates the infiltration of these species. Invasive species in the Mill Creek area are mainly Glossy Buckthorn, Phragmites (reed), and Reed Canary Grass. These species were the most problematic as shown by the 2003 Cuyahoga River Wa-

tershed RAP.

#### *Storm Water Runoff*

Runoff and other nonpoint pollution sources produce approximately 16 percent of the pollutants in the watershed. Nonpoint pollution is caused mainly from stormwater traveling over the ground, since as it moves it will pick up natural and man-made pollutants.

#### *Soil Condition*

Most of the watershed is covered with soils that drain poorly. Wetland restoration and protection throughout the watershed will help water drain naturally into the earth and limit the amount of runoff.

### *3.19 RECOMMENDATIONS FOR NATURAL RESOURCES*

Improvements to the watershed will positively affect Garfield Park Reservation. The following goals can apply to both the region through which Mill Creek travels, as well as Garfield Park Reservation.

- Make a community goal to increase the tree canopy. Have community events to show the benefit of maintaining canopy and encourage plantings.
- Clearing invasive species can be costly

in a large area; the unit cost for clearing invasive plants is \$220 and seeding/planting can cost around \$5,000 per unit. A site plan should be created to target the most infested areas first, where plants are prone to spread most rapidly.

- Protecting wetland areas and rebuilding natural stream channels are the best ways to protect against erosion and manage storm water runoff. Wetlands need to be restored, and buffer zones should be created or maintained so that there is greater connectivity and function for the wetlands.
- The combination of the soils and the increasing amount of impervious surface is a very dangerous combination. Soil condition in the watershed would be hard to change, but the amount of impervious surfaces can be altered through better design strategies. Design regulations should be implemented to reduce storm water runoff, pollution, and help with flood control, erosion, and water quality.

### *3.20 POLICY RECOMMENDATIONS*

#### *Information Sharing*

Stressors to the park can be better managed if the problems and potential solutions are ingrained into the minds of the public

and of political entities. Goals should be set by communities to better manage pollution, enhance greenspace, and improve water quality. Educational programs of Garfield Park Reservation could be incorporated into the surrounding schools, and be enhanced to offer more information on ecological issues. The current programming does not focus enough on how changes can be made in the community to better the watershed.

Exciting projects such as the greening of Garfield Boulevard, should be more publicized and have updates to the community can see what progress is made. The community should also be informed about the valuation of the asset. Signage could be provided to show what the addition of trees and greenspace do for the community's value.

#### *Expansion of Greenspace*

Mill Creek travels along the Chaincraft property, which is a small business/industrial park, nearly hidden from the roadway. It is located within the flood plain of Mill creek. Since the property is so close in proximity to the reservation, a long-range plan for relocating current businesses and linking property with Cleveland Metroparks Garfield Reservation should be formed. This site could be a demonstra-

tion site illustrating how environmental contamination can be remediated and benefits of flood control and wildlife habitat can be restored (see Figure 19: Expansion Map).

The quarries just northeast of Garfield Park Reservation have two owners: Garfield Alloys, Incorporated and Catholic Charities. Garfield Alloys, Inc. owns the western portion, which is about 35.9 acres, and the remaining section is about 14.8 acres. The lake covers about 42.1 acres, which crosses ownership boundaries.

The City of Garfield Heights applied for and received Clean Ohio Grant Funds (CORF) to develop and implement a plan to fill the quarries with clean fill. The quarries are a safety hazard, but dump trucks are there daily to fill them and to reintroduce the area, and maintain them as wetlands. This will help collect and manage storm water runoff, and be a conservation area. The process of filling the quarries and planting native wetland species can be used as an educational element for the community. Since the quarries are just northeast of Garfield Park Reservation, a pathway could be connected from Broadway Avenue to link the two resources.

Calvary Cemetery is the largest cemetery in the Catholic Diocese of Cleveland,

and is the resting place of a number of prominent industrialists and executives in Cleveland history. The cemetery covers approximately 302 acres of land. Rail lines and Broadway Avenue bisect Garfield Park Reservation from the cemetery, however there is a possible link to the cemetery with the completion of the quarries wetland project. The Cuyahoga County Greenprint demonstrates a possible linkage to the eastside of Cleveland off of Broadway Avenue, and Martin Luther King Jr, Drive. The cemetery could become an additional pathway for recreation use, as well as an educational opportunity to offer history of the cemetery and Cleveland Catholic Charities. The Metroparks and Cleveland Catholic Charities could form a partnership to allow more access to the large amount of greenspace that the cemetery offers the community.

Expansion to the north of Garfield Park Reservation will give neighborhoods that are currently cut off from the park areas, and natural areas in general, an opportunity to have access. The north neighborhood, as referred to earlier, has little connectivity and will benefit by the expansion.

#### *Neighborhood Connection*

Better position the Garfield Park Reservation as an urban park oriented to serving

its position as a neighborhood park (see Figure 20: Park and Neighborhood).

To achieve this end the Cleveland Metroparks needs to:

- Improve access for users regardless of their choice of transportation
- Strengthen the educational and organized recreational elements of the reservation by positioning the activities in close contact with each other
- Orient traditional park elements to focus on neighborhoods and the largest number of reservation users
- Improve physical facilities in order to further improve recreational and educational activities

The Garfield Park Reservation holds an important open space and recreational position within the surrounding neighborhoods. Originally created by the city government, the reservation has a long history of filling the need of its nearby residents as a daily park.

The effort to focus the reservation's resources to better fill this role as a local recreational opportunity can also be paired with efforts to expand the use and opportunities of educational and entertainment programs.



*Figure 20: Park and Neighborhood*

Most of the built physical assets of the reservation are found along the eastern edge of the reservation along or overlooking Broadway Avenue. The Red Oaks picnic pavilion and the Nature Center are located a significant distance from the nearest RTA bus stop or other commonly used pedestrian access points. Additionally the Nature Center could be expanded to offer new and wider array of educational programs and entertainment options.

An effort to better engage the physical assets with transportation and pedestrian access point could lead to more use of the facilities and programs. Expanding picnic facilities, adding playground equipment or adding other recreational infrastructure along the west side of the reservation would make these services more physically available to both those who live in the immediate neighborhood and those who rely on public transportation to reach the reservation (see Figure 21: Facility Improvement Map).

Adding a new Nature Center to this expansion of service near the main entrance of the reservation at Garfield Boulevard would position the center to also have better access to all visitors to the reservation. Choosing a site to repurpose to these expanded activities could help maintain conservation values. The reuse of under-

utilized land could minimize the encroachment of physical facilities on conservation space.

The parking lot near the Windy Ridge Picnic area is oversized and underused for most of the year. The condition of the parking lot is also deteriorated. Using this space and the already developed picnic areas associated with the parking is an appropriate place to add physical improvements. The material and equipment storage area that has encroached on the parking lot could also be claimed for either recreational opportunities or a new Nature Center.

This site is desirable for several reasons. The location is already a developed but underutilized piece of land. The maintenance uses could be moved to fill the vacated space from the existing Nature Center.

The suggested site is located in an advantageous position within the reservation. The site is positioned in a place that is closely located to public transit stops at Turney Road and the entrance of the reservation. It is also positioned in a place that is close to the edge of the reservation so that the facilities would be convenient for local residents to use.

Embracing the role as a neighborhood asset could create an opportunity to increase the usage of the existing facilities and programs while also justifying new investments in additional attractions. Many of the people interviewed in the field survey expressed little to no knowledge concerning education or entertainment programs within the reservation. Given that the Garfield Park Reservation is one with limited expansion possibilities for a regional attraction without encroaching on existing conservation land, a plan to expand the user base might prove to be unobtainable. Therefore, the existing role should be the focus of future site improvements.

### *3.21 MARKETING RECOMMENDATIONS*

According to the CSU-Cleveland Metroparks survey, most visitors of Garfield Park Reservation are from the surrounding neighborhoods. This is surprising, however, since Mill Creek Falls—the largest waterfall in Cuyahoga County—should be a regional attraction. People from the region simply do not know about Mill Creek Falls. Furthermore, few people who use the park often know of its existence. The lack of outsider visitation and knowledge is perceivably the result of insufficient marketing of the natural landmark. To fix this problem and to draw more visitors to the



reservation, Cleveland Metroparks should more actively market Mill Creek Falls. The following are some recommendations for accomplishing this goal.

#### *Create a Hallmark*

The best way to let visitors who already frequent the park know about the falls is to change the entrance signs on either side of the park. If these signs integrated a waterfall into the graphics, people would instantly know that there is a waterfall somewhere within the property. They may be inclined to ask more questions or seek out the natural attraction. Emblems should also be created for the reservation that remind those who see it that Mill Creek Falls is on the property (see Figure 22: Current Nature Center Sign).

#### *Improve Mill Creek Connector Signage*

Currently, the Mill Creek Connector trail signage is the same as all other trails in the reservation. It is labeled by a small post with a tiny icon symbolizing the trail. However, few casual visitors pay any attention to these markings. They are there to meander around without worrying about which trail they are on. However, if this trail were to be labeled by the terminus (i.e. the waterfall) instead of the all-purpose trail that leads there, more visitors may be

inclined to visit. If a large sign is not possible due to vandalism issues, painting a sign directly on the path would also work.

#### *Realign Mill Creek Falls Entrance Sign*

As stated in the physical reservation section (above), one simple fix to the confusing vehicle entrance of Mill Creek Falls is to realign the entrance sign. The current location and orientation of the entrance sign is extremely confusing to drive-in visitors. The sign should be perpendicular to Webb Terrace instead of Warner Road. Arrows should also be added to let everyone know exactly where to go. Signage should also be improved at the intersection of Turney and Ella Avenue for those visitors travelling from the main section of the park to the falls via car.

#### *Advertise*

Cleveland Metroparks does not actively advertise that Mill Creek Falls exists. Their website ([www.clemetparks.com](http://www.clemetparks.com)) does not mention the waterfall in the brief description of Garfield Park Reservation. The trail and park maps also downplay the existence by simply numbering the attraction. To increase visitor occurrences, Metroparks must increase awareness through advertising. This may mean discussing it on their website or putting a graphic on

maps to show where it is. In fact, creating a Garfield Park Reservation Hallmark and improving the connector trail signage would both help advertise the attraction.

These are just a few minor (and fairly cheap) ideas. There is room for creativity, also. Perhaps having a waterfall festival or coordinating a special event with the Slavic Village Historical Society would also help advertise. The possibilities are endless.

#### *3.22 PARTNERSHIPS*

Cleveland Metroparks has relationships with multiple groups who have an interest in Garfield Park Reservation and the surrounding area. These groups include Slavic Village Historic Society, Mill Creek Watershed Partnership, and the cities of Cleveland and Garfield Heights. Beyond the existing partnerships, Cleveland Metroparks should forge relationships with Catholic Charities, Tourney Road Businesses, and Broadway Avenue Industries.

#### *Slavic Village Historical Society*

The Slavic Village Historical Society owns and operates the Mill Creek Falls History Center in the northern part of Garfield Park Reservation. This History Center is located just across from Mill Creek Falls provides bathrooms and interesting dis-



Figure 22: Current Nature Center Sign

plays for visitors. This partnership should be maintained since the History Center greatly enhances the northern park experience and creates a destination that may draw visitors to the falls.

#### *Mill Creek Watershed Partnership*

The Mill Creek Watershed Partnership is a community-based organization of citizens, businesses, government agencies and community groups dedicated to working together for the improvement of the Mill Creek Watershed. Mill Creek has a large watershed that includes portions of many communities in Cuyahoga County including Beachwood, Cleveland, Cuyahoga Heights, Garfield Heights, Highland Hills, Maple Heights, North Randall, Shaker Heights and Warrensville Heights.

Since Mill Creek and Wolf Creek (a major tributary) meet within in the boundary of Garfield Park Reservation, the partnership between Cleveland Metroparks and the Mill Creek Watershed Partnership must be maintained. This will ensure water quality programs within and outside of the reservation, positively affecting all areas involved.

#### *City of Cleveland*

Most of the northern section of Gar-

field Park (Mill Creek Connector and Mill Creek Falls) lies within the City of Cleveland. Though Cleveland Metroparks maintains all of the easements along the trail and Mill Creek Falls, the city has jurisdiction over all of the roads and access point to these attractions. The most important access point is Webb Terrace via Turney Road which is beyond confusing for most motorists. Working with Cleveland to alleviate some of the complicated route between the main part of Garfield Park Reservation and the falls would benefit both parties.

#### *City of Garfield Heights*

Most of Garfield Park Reservation is located within the city of Garfield Heights. Garfield Heights is also in control of the quarry located across Broadway Avenue from the east entrance to the reservation. If this quarry were to be connected to Garfield Park Reservation, collaboration with the city would be necessary. This is especially true considering the substantial barriers that exist between the two properties (Broadway Avenue and the railroad tracks). Furthermore, a partnership with the city could give Cleveland Metroparks some leverage when dealing with property owners along Chaincraft Road to the southeast of the reservation.

#### *Catholic Charities*

Beyond the quarry, to the northeast of most of Garfield Park Reservation is the massive, park-like Calvary Cemetery controlled by Catholic Charities. A connection to this cemetery would increase the length of the paths of the reservation substantially. To accomplish this, collaboration would have to occur between Cleveland Metroparks and Cleveland Catholic Charities. Both organizations could benefit from this connection. Garfield Reservation would increase the paths that it offers its visitors and Calvary Cemetery would increase attendance which, in turn, would increase safety throughout their grounds.

#### *Local Businesses and Industries*

Garfield Park Reservation is located between two very different areas. On the west is a residential area with a commercial strip along Turney Road. To the east is a mainly industrial corridor along Broadway Avenue. Partnerships between both the commercial business owners on the west and industrial owners on the east would be beneficial to all parties.

Commercial business owners would benefit from the increased traffic to and from the park. They would also benefit from an enhanced streetscape north along Turney



Road into the “Mill Creek Falls Neighborhood”. Though external development is certainly not within the mission of Cleveland Metroparks, Garfield Park Reservation would experience more activity in the northern section if a commercial organization were to beautify Turney. This is why a partnership is necessary.

A relationship with the eastern industrial owners is more ecologically important. Upstream from Garfield Park Reservation is an industrial area off of Chaincraft Road. This area is located between a forested hillside and Broadway Avenue. This area is in poor shape undoubtedly causes polluted runoff into Mill Creek. A partnership with these industries could prove invaluable for the health of the stream and all those living or enjoying areas downstream. This type of relationship satisfies Cleveland Metroparks’ first mission: Conservation.

Figure 2: Facility Map

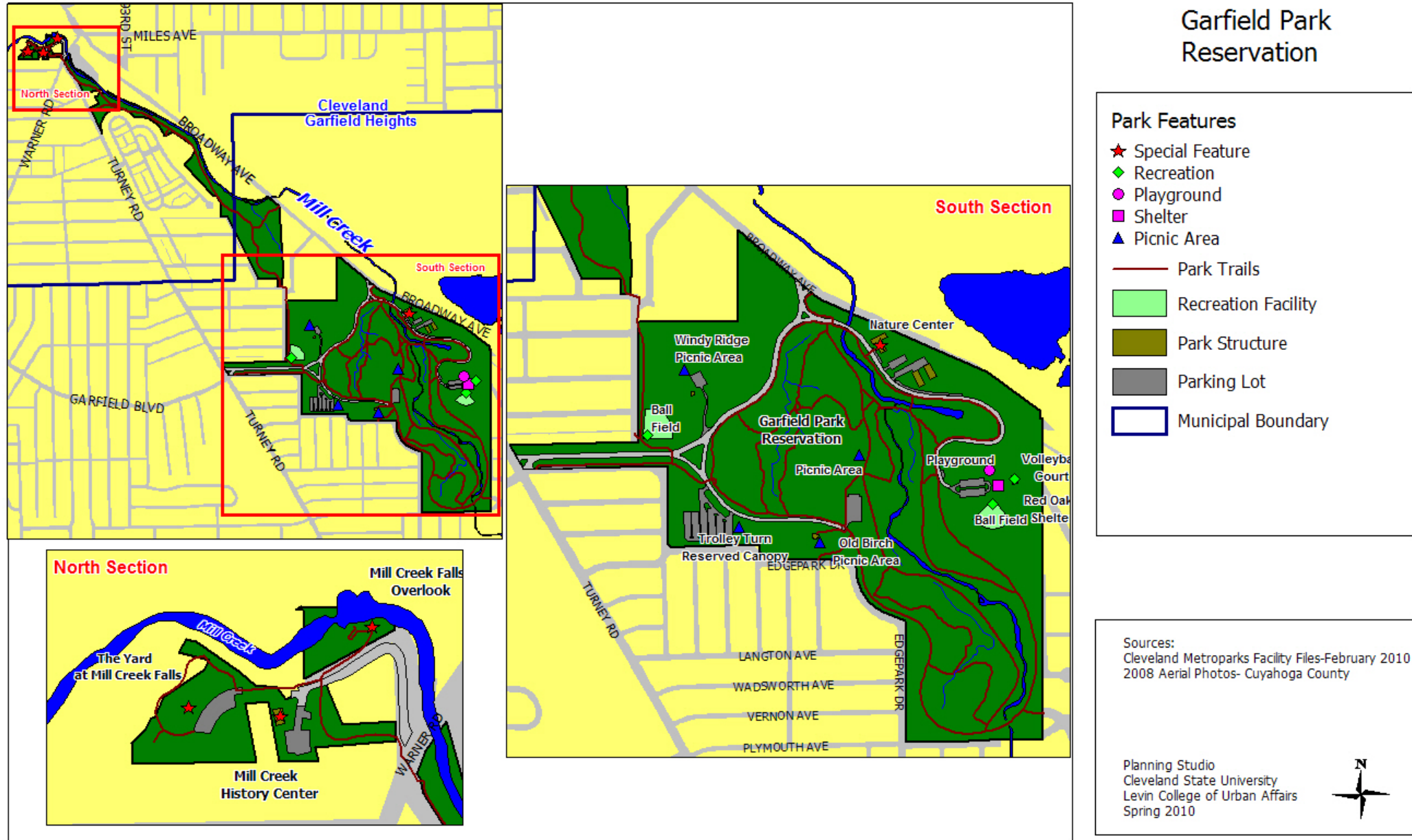


Figure 8: Land Use Map

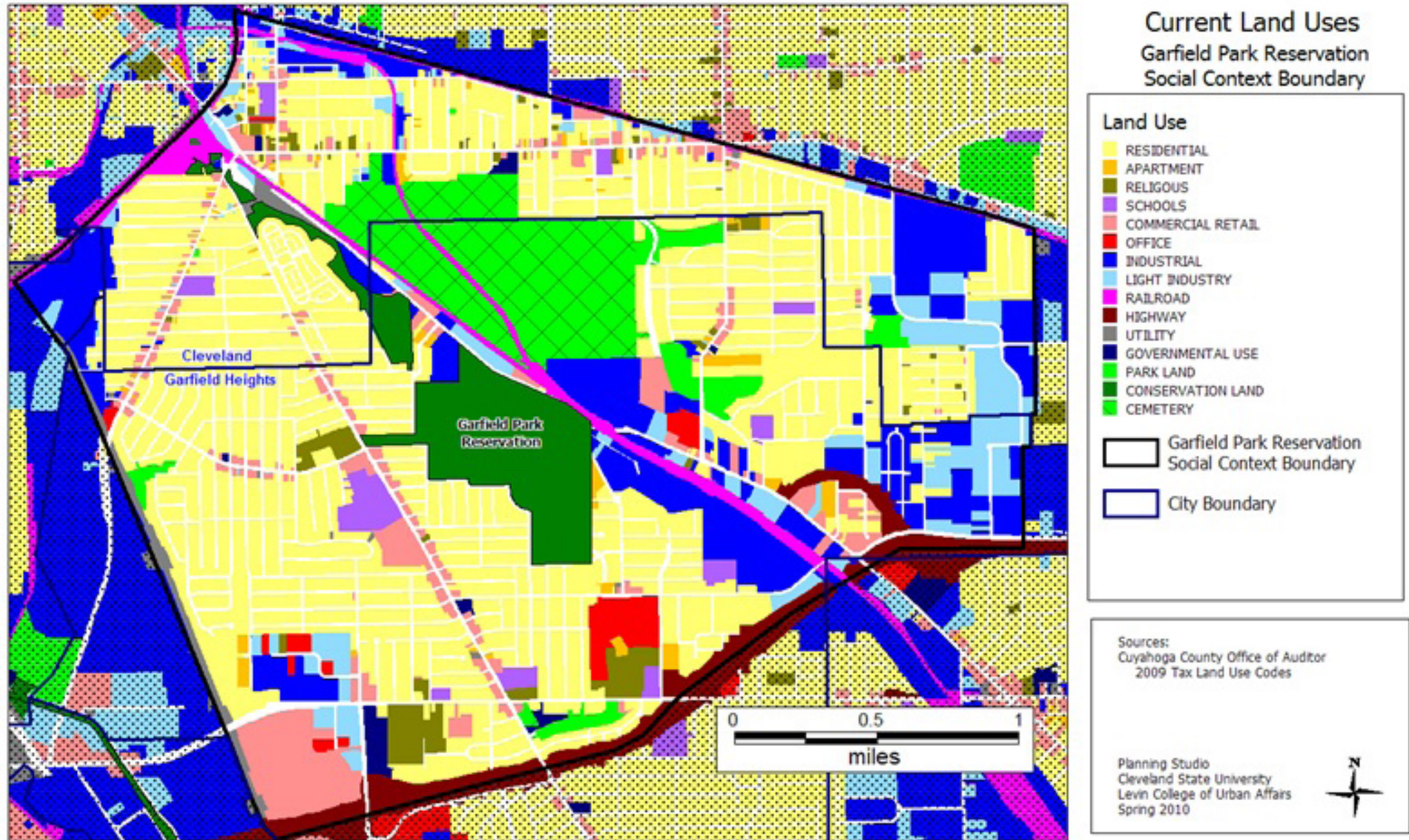


Figure 9: Demographics Map

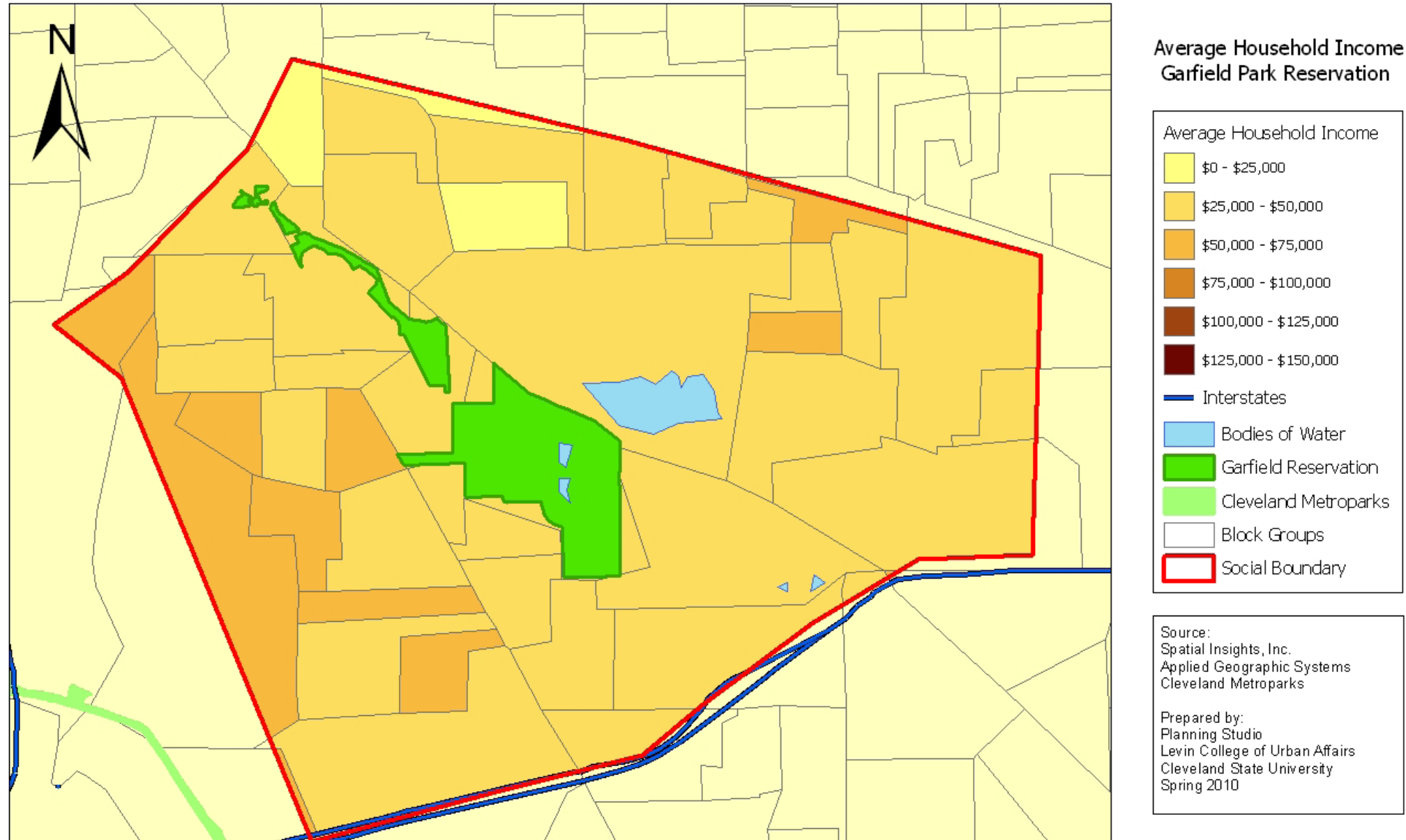


Figure 10: Demographics Map

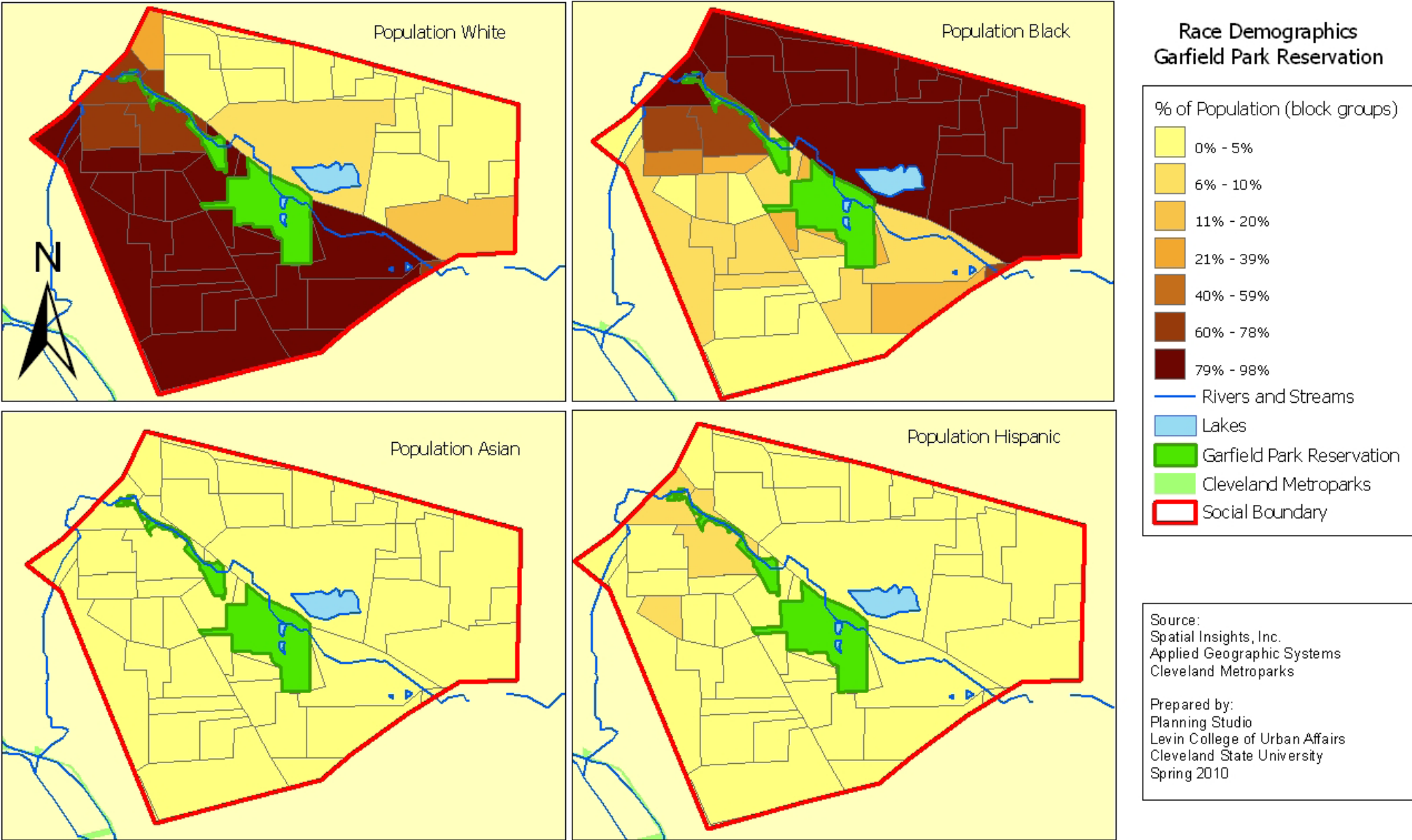


Figure 11: Demographics Maps

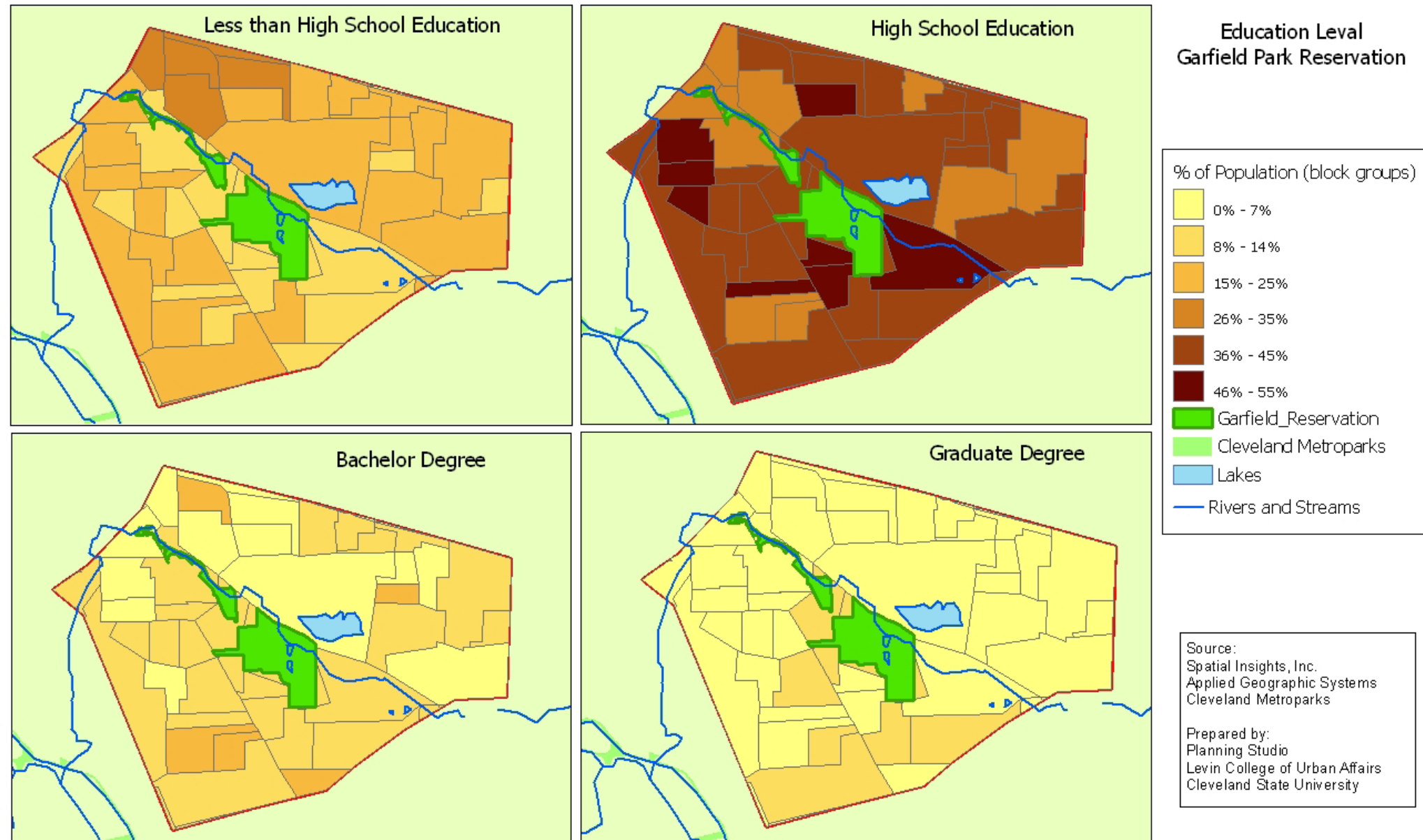
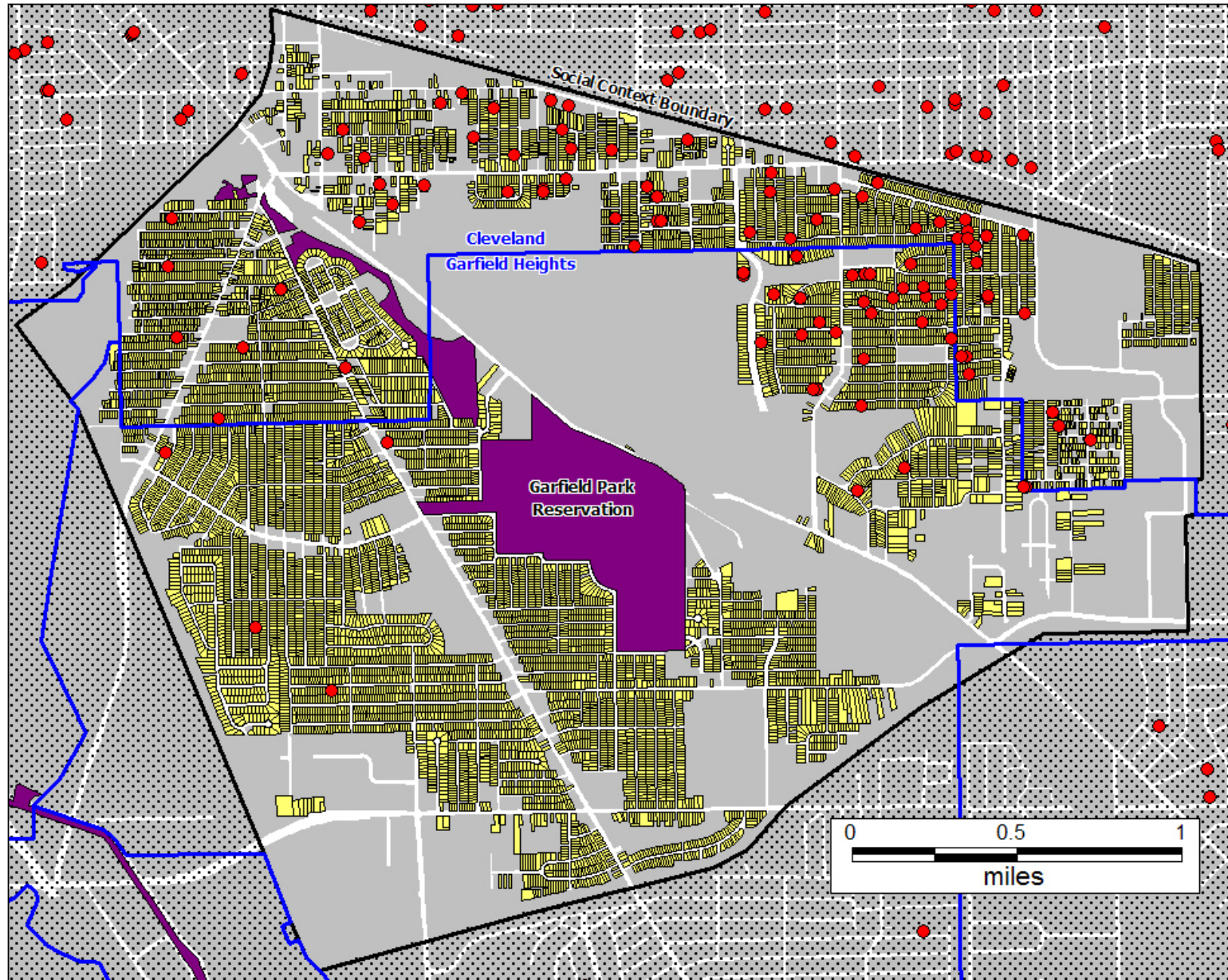




Figure 12: Foreclosure Maps



1990 Sheriff Sales  
Garfield Park Reservation  
Social Context Boundary

**1990 Sheriff Sale**

- Sheriff Sale Location (98)
- Residential Parcel
- ▭ Garfield Park Reservation Social Context Boundary
- Garfield Park Reservation Property
- ▭ Municipal Boundary

Sources:  
Cuyahoga County Office of Auditor  
Transfer Records

Planning Studio  
Cleveland State University  
Levin College of Urban Affairs  
Spring 2010

Figure 13: Foreclosure Maps

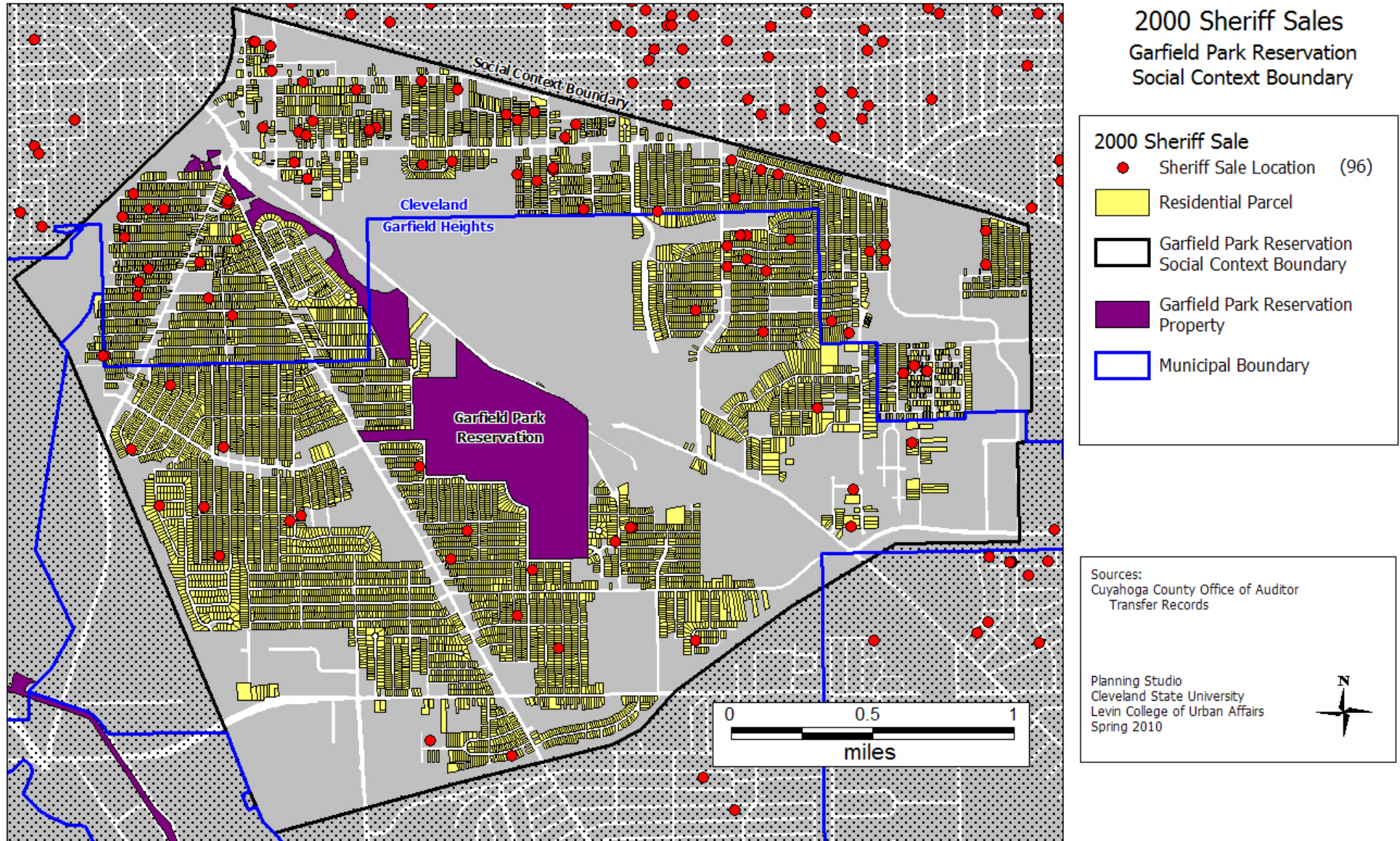


Figure 14: Foreclosure Map

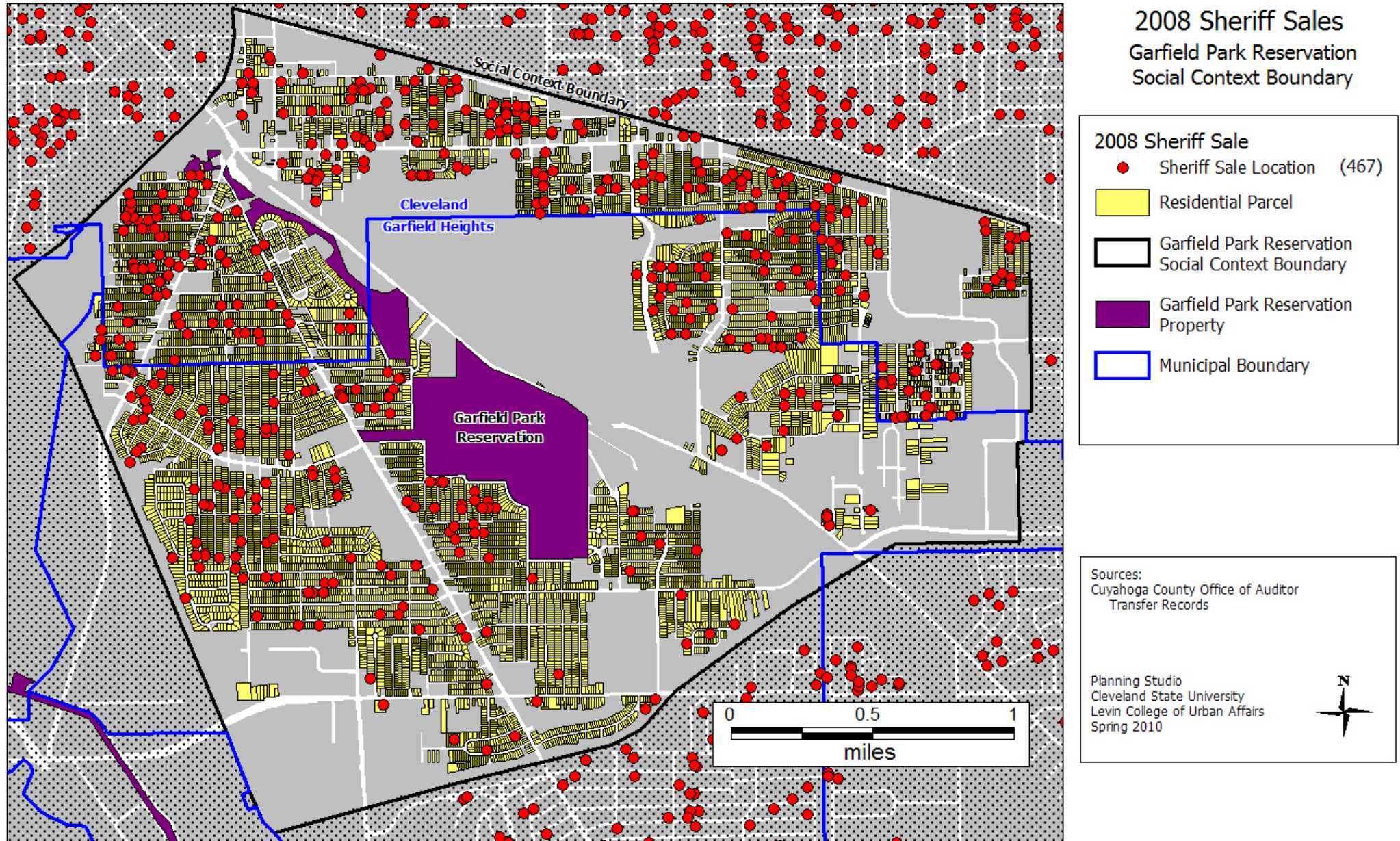


Figure 15: Land Value Map

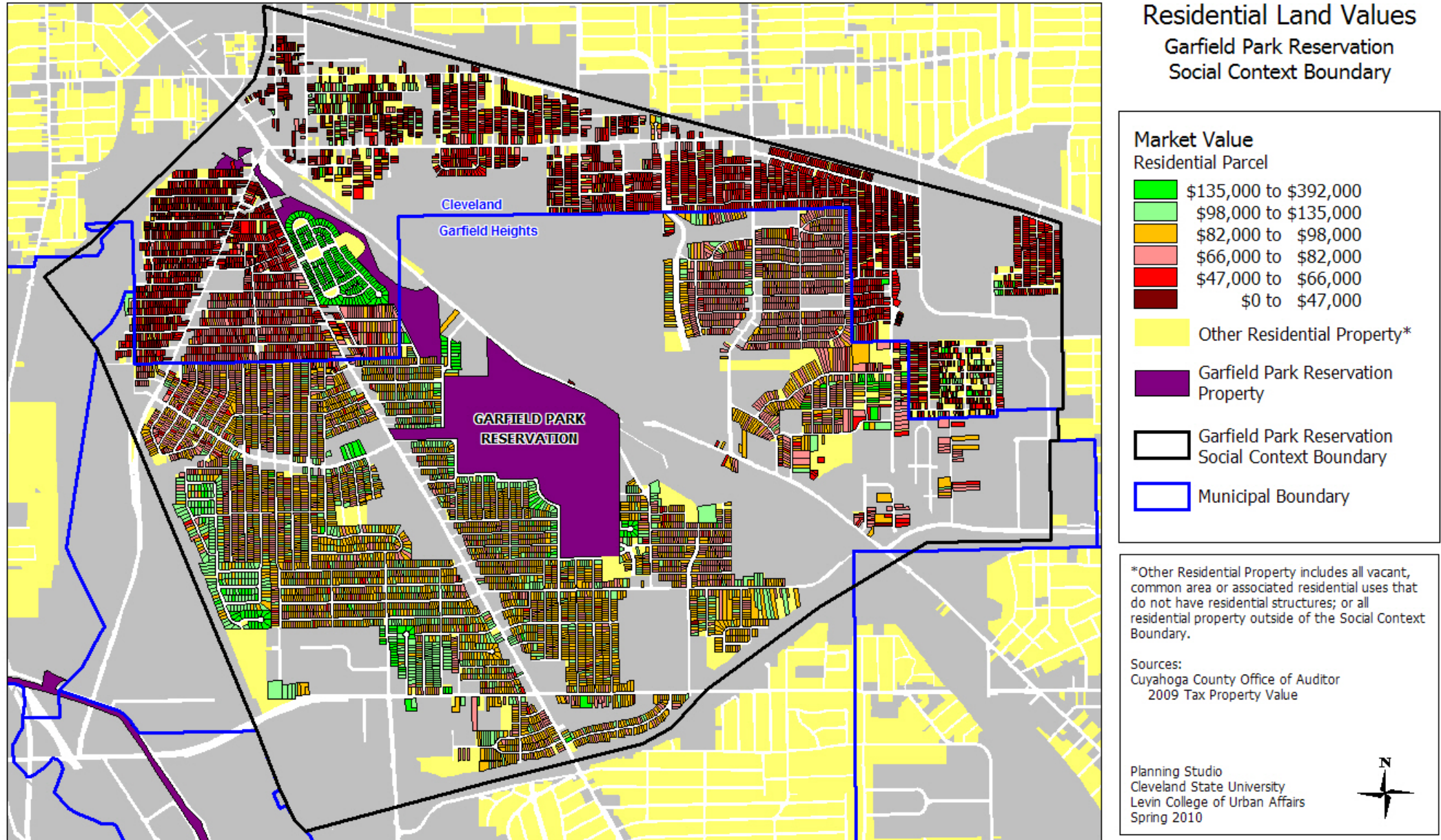




Figure 16: Forest Cover

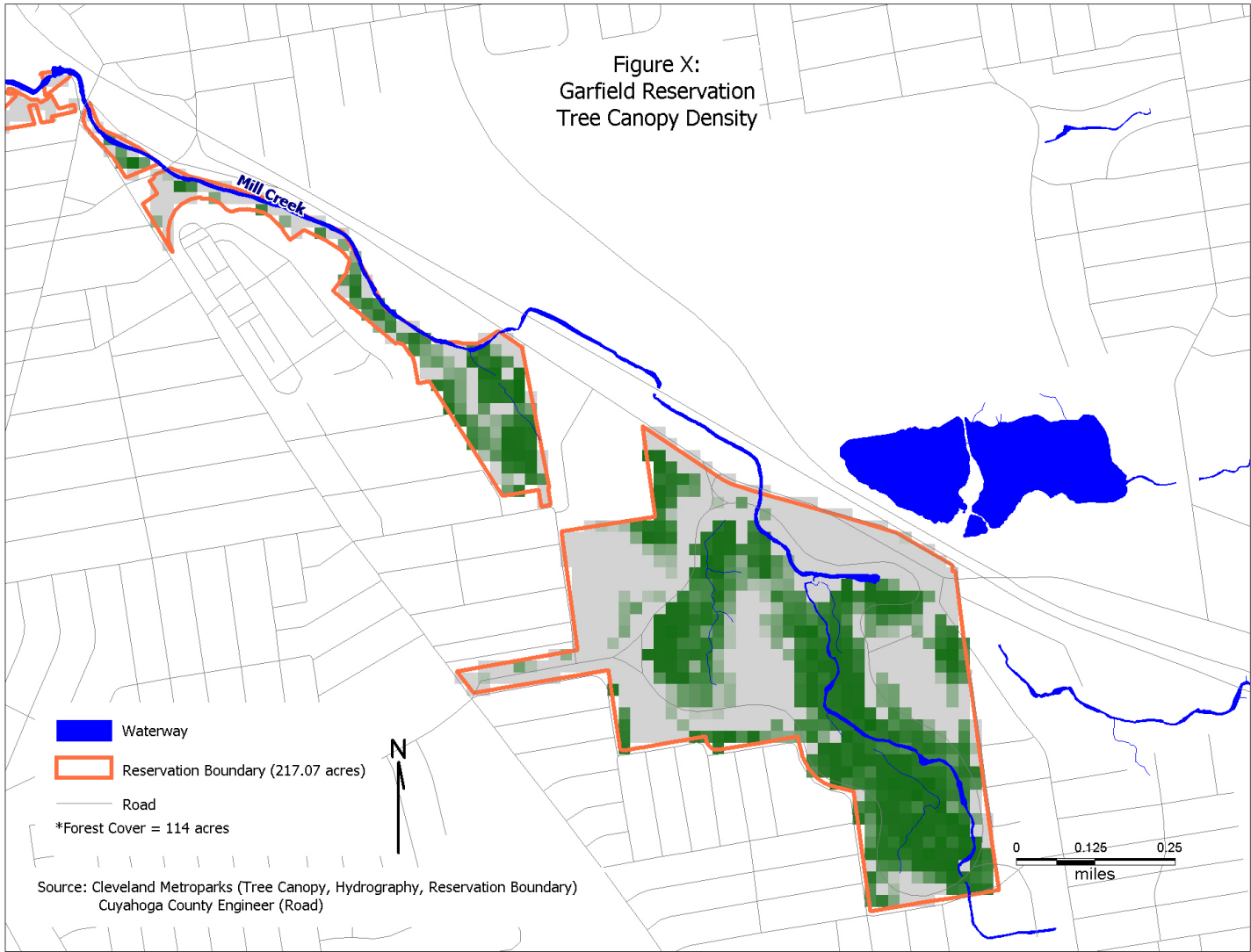


Figure 18: Hydrology

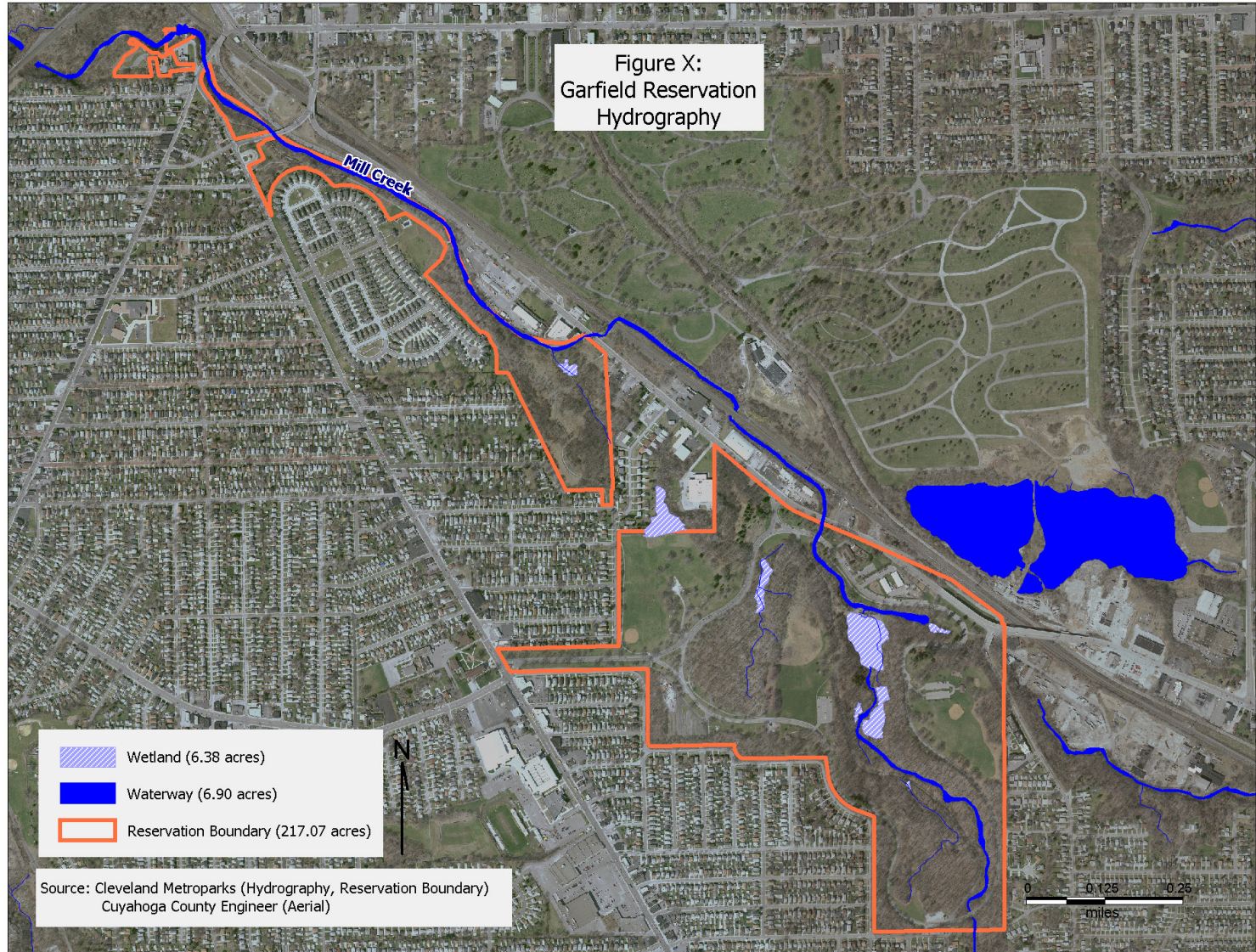
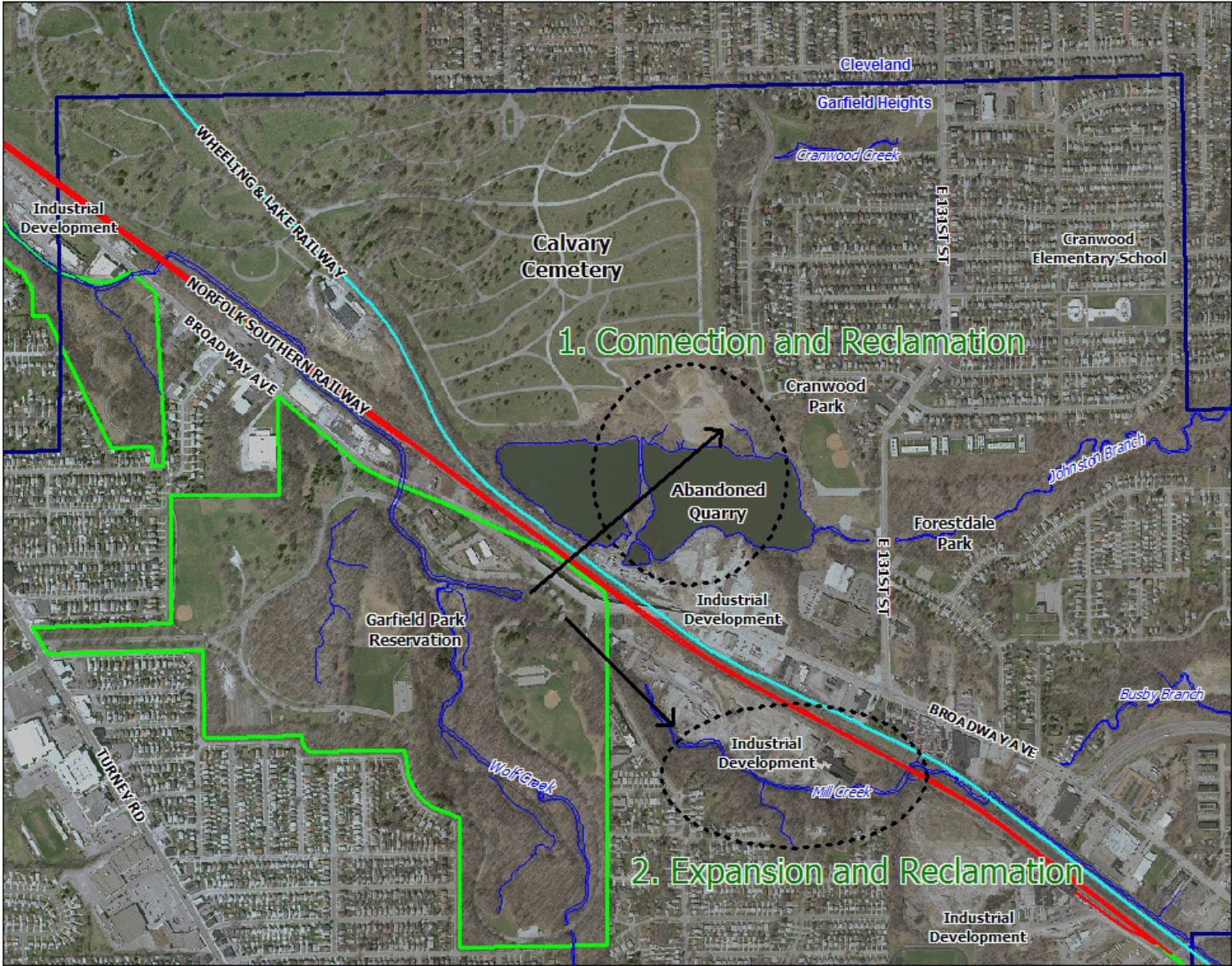


Figure 19



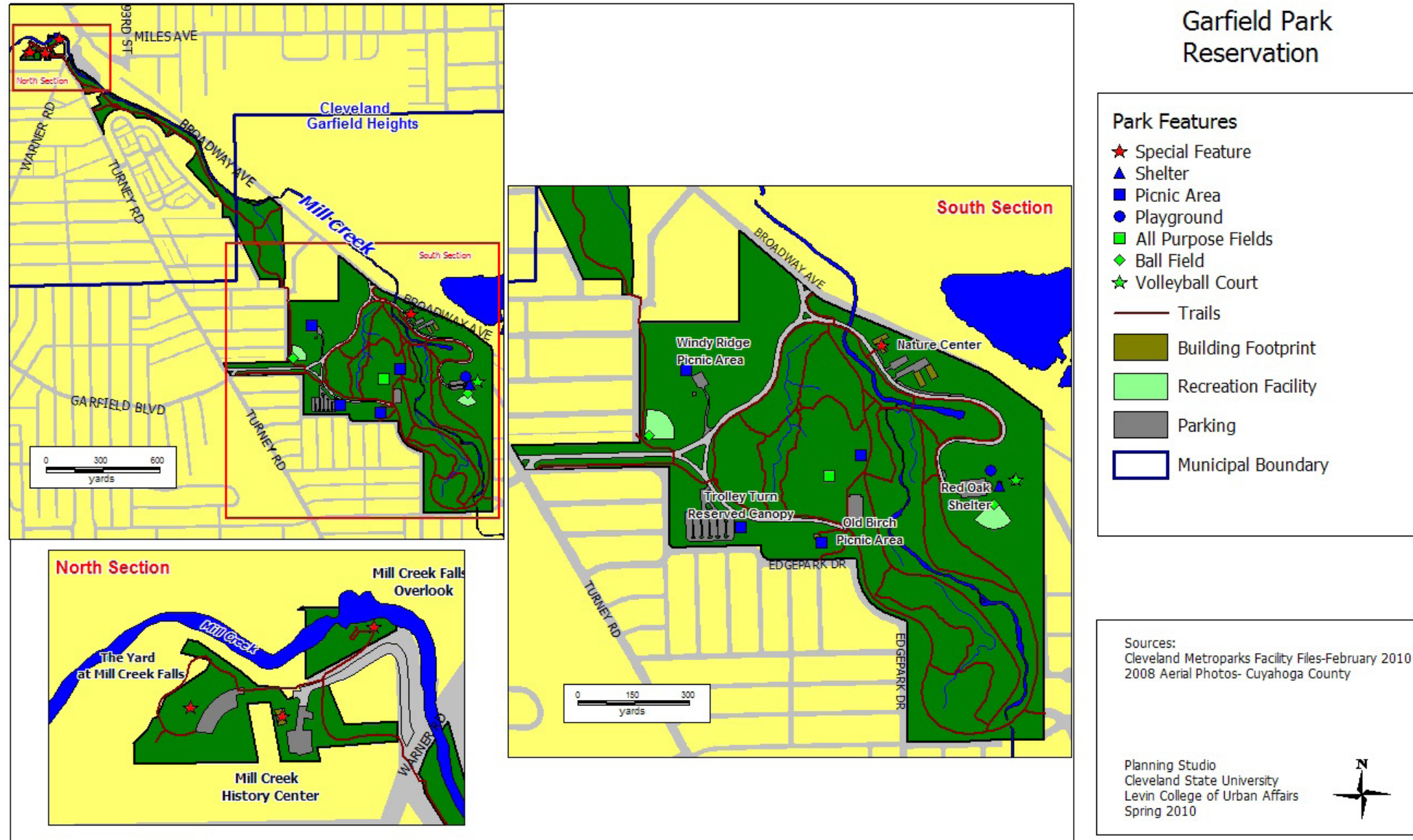
### Potential Opportunities Expand and Connect

Source: 2008 Aerial Photos- Cuyahoga County

Planning Studio  
Cleveland State University  
Levin College of Urban Affairs  
Spring 2010



Figure 21







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