

SECTION II - INVENTORY AND ANALYSIS

A. Historic Land and Water Use

The area that is today the Town of Clay was first inhabited by European settlers in the 1790's. It is often noted that the first settler was Patrick McGee, having constructed a log cabin at the juncture of the Seneca and Oneida Rivers in 1793. However, some historians have found evidence of this location having been previously settled by Simeon Barker in 1790. Regardless of who the first Clay settler was, the Town's first European permanent residence was established at the confluence of the Oneida and Seneca Rivers where they meet to form the Oswego River, a point that has since those early days been referred to as Three Rivers or Three Rivers Point.

In reality, neither Patrick McGee or Simeon Barker nor any other European settler was the first to inhabit this region. It is well documented that Native American settlements existed along the Seneca and Oneida Rivers well before Europeans inhabited North America. Historical accounts and archeological investigations have provided evidence of such settlements. Early settlers have provided accounts of a Native American settlement near Oak Orchard Reefs on the banks of the Oneida River. Evidence of a burial ground near this location was reported as late as 1878. Archeological investigations have also indicated evidence of Native American settlements and encampments along the rivers at Three Rivers Point and in the hamlet Belgium, near the Route 31 Bridge. Three Rivers Point is considered a place of historic significance to Native Americans. This location is thought to have been a regular meeting place for members of the Iroquois Confederacy prior to the late 1790's.

The Town of Clay was originally a part of Cicero and included fifty of the original Central New York Military Tracts. The Town was established in 1827 and at the time had approximately 2,000 inhabitants. When first settled by Europeans, the area was comprised of dense forest and swampland.

The first commerce recorded in the area was the manufacture and sale of barrels. Dense forests provided the raw materials, and the growing salt trade in Syracuse and flour market in Oswego provided the demand. Streams in the area did not provide adequate flow or fall for sufficient water power for the development of mills. The first sawmill is recorded to have been erected on a small stream in the northeast corner of the Town. Insufficient water flow limited the operations of this mill to the spring and fall. The Oneida River, specifically at Caughdenoy and Oak Orchard, did provide sufficient water power for the development of small mills. In early years, a number of saw mills and flour mills are reported to have been constructed at these locations.

The rifts at Caughdenoy and Oak Orchard also provided a commercial fishing industry in the early days of the Town. Eels spawning in the Oneida River from Lake Ontario congregated in these areas and were easily caught. Following the lead of Native Americans who preceded them, early settlers would catch these fish in numbers sufficient to support a successful industry.

As areas were cleared, the soil was found to be fertile and suitable for agriculture. In 1836, there were 8,700 acres of improved land in the Town. Nine years later, in 1845, this number had grown to 12,800 acres. By 1860, nearly 20,000 acres (65% of the total land of the Town) were reported to be “improved land” and over 450 members of the Town reported their occupation as “farmer”. That year, nearly 5,000 bushels of winter wheat, 150,000 bushels of spring wheat, 4,700 tons of hay, 34,000 bushels of potatoes and 27,600 bushels of apples were reported to have been grown in the Town. Following the Civil War, the Town became a flourishing agricultural community. The early pioneer industries of lumbering and barrel manufacturing had largely disappeared. Large farms producing grains, hay, corn and tobacco were common throughout the Town. A number of dairy farms were also found at this time.

In 1871, the first rail line through the Town was laid when the Syracuse Northern Rail was constructed from Syracuse to Sandy Creek. Within a few years, a second rail passed through the Town when the Syracuse Northern installed a track from Syracuse to Oswego, crossing the Oneida River just east of Three Rivers Point.

Through much of the 19th Century, development across New York State was driven by commerce along the Erie Canal, located approximately 5 miles south of the Town. By the 1890’s, the Canal was becoming outdated and undersized for the volume of commerce being transported across the State. By this time, railroads had expanded, providing a new means of transportation for raw materials, finished goods and individual travel. Consideration was given to abandoning the Erie Canal and doing away with a water-transportation route crossing the State. However, in 1898, then-governor Theodore Roosevelt appointed a commission to evaluate the Erie Canal and make recommendations for its reconstruction or abandonment. The commission’s recommendation was for the creation of a new canal system that would be vastly larger than the existing canal and would rely on manmade cuts between natural waterways. The new canal would bypass many of the canal-centered cities, such as Syracuse and Rochester, and run generally along the natural routes of the Mohawk River, Oneida Lake, Oneida River and Seneca River.

The Barge Canal System opened in 1918 and included a critical stretch through the Town of Clay. Cargo traveling by water from the east to the west would now cross Oneida Lake and follow the Oneida River. A cut was dug between legs of the river south of Caughdenoy. Named the Anthony Cut, this cut includes a lock (Lock 23) that would later become the busiest lock in the new canal system. Continuing west, the new route traveled along the Oneida River to Three Rivers Point, where travel could continue north along the Oswego River to Phoenix, Fulton, Oswego and out to Lake Ontario or turn south into the Seneca River to Baldwinsville and points west. The Barge Canal System was a successful commercial transportation route through the mid 1960’s. As overland transportation routes gained in popularity, use of the canals declined. While commercial traffic occasionally passes along these historic routes, the canal system is currently more popular to the recreational boater traveling these scenic waterways.

Despite the passing commercial traffic along the Oneida and Seneca Rivers, the Town of Clay saw limited commercial development. The only businesses established in the Town as a result of the canal system were two petroleum product storage facilities located along Maider Road east of Three River Point (Oneida River) and a third bulk petroleum storage facility on Gaskin Road (Seneca River). These facilities,

all used for the bulk storage of liquid asphalt, kerosene and other fuel products, originally transported these materials to and from their locations by barge. In later years, these facilities began using the canal less in favor of overland transportation. By the mid 1990's, all three facilities were closed.

B. Existing Land and Water Use and Waterfront Access

The former Barge Canal, known now as the New York State Canal System, is primarily a tourism destination used by thousands of pleasure boaters, fisherman, tour boats and those enjoying the scenic surroundings in canoes and kayaks.

Due to its geographic significance, boat traffic past Three Rivers Point is heavier than that along any other point on the Canal System. From Three Rivers Point, boaters have access to Oneida Lake to the east, Lake Ontario to the north and Cross Lake to the west. Lock 23, located 10 miles east of Three Rivers Point on the Oneida River, provides access into Oneida Lake. This lock is the busiest on the Canal System, with over 4,000 recreational boats passing through this lock in 2008. Commercial traffic, tour boats, hired boats and State/Federal boat traffic account for an estimated 2,600 additional boats having passed through this lock in 2008.

There are currently no industrial activities in the Town of Clay that rely on water as a means of transportation. There are three privately-owned public marinas in the Waterfront Corridor. On the south shore of the Oneida River, just east of the Horseshoe Island Bridge, is the Pirates Cove Marina. This is a full-service marina providing fuel, marine services, boat sales and boat launching. The marina also has a restaurant that is accessible by boat or car.

A second marina, the Caughdenoy Marina, is located on Caughdenoy Road, also on the south shore of the Oneida River. This marina provides dockage, shore-side camping and a public boat launch, and has a bait shop. The third marina in the Town is currently providing limited access to the waterfront. This marina, located on Bel Harbor Drive, provides a launch site limited to smaller boats on single-axel trailers. This marina currently is not in full commercial operation and has limited hours of operation.

There are no critical agricultural lands remaining in the Town. While many acres of land remain in agricultural use, the importance of agriculture as a viable means of commerce in the Town greatly diminished through the 1900's, particularly over the last 30 years.

The vast majority of waterfront property today is privately held and is used for residential purposes. Private residences occupy nearly all of the developable waterfront land along the Seneca River from the Town's southern border to Three Rivers Point. While not as densely developed, much of the Oneida River shoreline is also developed with single-family residences. A number of undeveloped properties remain in the Waterfront Corridor. These consist of former agricultural lands that have not been subdivided to date. There are also State and Federally regulated wetlands areas that have not been developed.

Significant undeveloped properties are located along the waterfront at Three Rivers Point and along Black Creek Road. The Town of Clay owns both tracts of land. Although the Three Rivers Point land is located directly along the water, it has no direct access to the River. It is also split by County Route 57.

The land consists of vacant, undeveloped grassed areas and former industrial land. The undeveloped property along Black Creek Road consists of wooded and former agricultural land and is located south of the Erie Canal, Lock 23 and associated land. While both the Three Rivers Point and the Black Creek Road properties are currently undeveloped, their proximity to such important waterfront features provides an excellent opportunity for future development.

There are two municipal wastewater treatment plants within the Waterfront Corridor. Both of these plants are owned and operated by the Onondaga County Department of Water Environment Protection (OCDWEP). The Wetzal Road Publicly Owned Treatment Works (POTW) is located on the west end of Wetzal Road, on the east shore of the Seneca River. The Oak Orchard POTW, along the southern shore of the Oneida River, is located on Oak Orchard Road just east of the Morgan Road intersection.

The New York State Department of Environmental Conservation (DEC) owns three parcels of land in the Waterfront Corridor. Two parcels are vacant undeveloped land along Route 57, having frontage on the Seneca River. The third is a boat launch site on Bonstead Road, beneath the Interstate 481 Bridge.

Public access to the waterfront is limited to only a few locations. The DEC land along Route 57 provides public access to hiking trails that run to the shore of the Seneca River. This land also provides access for shoreline fishing. The DEC boat launch site on Bonstead Road provides access for small power boats, as well as row boats, canoes and kayaks. The Town of Clay owns a number of parcels of land on and around Three Rivers Point. At this time, there is no access to the water from any of these properties, nor are there any facilities for public use of these lands.

The New York State Canal Corporation operates a public park at the site of Lock 23 in the Anthony Cut. This park is accessible by both boat and automobile. Dockage for boaters on the east side of the lock provides an opportunity to dock and enjoy the park. Automobiles can enter the park from Black Creek Road. A walking path runs along the shoreline and provides a viewing area to watch boats going through the lock. The grounds include picnic tables for public use, public restrooms and a concession stand that is open on weekends during the summer months. Shoreline fishing is available from docks on the east side of the lock. The Town of Clay owns approximately 100 acres of land adjacent to this park. While currently undeveloped, this parcel provides an opportunity for recreational use linked to the State Canal Park.

April 2006 aerial photography was utilized to classify the corridor's land uses. [Figure 3 – Waterfront Corridor Land Use Classification](#) shows the extent of various land uses along the waterfront. The imagery, coupled with field verifications, was used to determine land use categories and patterns. The largest land use category, making up approximately 45% of the Waterfront Corridor, is wooded land. Residential and undeveloped/vacant lands each account for approximately 17% of the acreage. Agricultural fields occupy approximately 7% of the corridor and commercial development makes up approximately 4%. Municipal/ State lands, inactive industrial sites, educational/religious property, recreational land and industrial/manufacturing sites comprise approximately 1% of the corridor. The remaining 9% of the corridor consists of roadways and open water.

Highly concentrated development along the corridor is located primarily south of New York State (NYS) Route 31, a major east/west transportation route. Development along this area consists of residential subdivisions and waterfront housing. A significant amount of commercial development is located along Route 31 and County Route 57, the eastern corridor boundary. Land south of Route 31 not utilized for residential or commercial purposes consists primarily of regulated wetlands adjacent to the Seneca River.

Development north of Route 31 is less dense than that south of the roadway. This lower density is due to its increased distance from the City of Syracuse, fewer transportation access routes and decreased municipal services (particularly municipal sewer). At the intersection of Route 31 and Route 57, and along Route 31 west of this intersection, lies a concentrated retail and commercial area consisting of a grocery store, hardware/farm supply store, retail gasoline and convenience store, restaurant, car wash, auto dealership and other businesses. Land use between Route 57 and Henry Clay Boulevard consists of a mix of residential, agricultural, wooded and undeveloped/vacant land. Horseshoe Island consists primarily of wooded land. Residential development runs along the entire eastern and northern shores and approximately one-third of the western shoreline. The interior and much of the western shoreline have not been developed due to wetland restrictions, frequent inundation during high water events and the lack of public utilities.

The majority of the remaining portion of the corridor is made up of a mix of scattered residential and agricultural land, and wooded, undeveloped/vacant lands. The Lock 23 State Canal Park is located in this portion of the corridor, south of the canal's lock.

C. Property Ownership

The vast majority of land within the defined Waterfront Corridor is in private ownership. The corridor consists of approximately 8,200 acres. More than 95% of this acreage is privately held. The balance is owned by the Town of Clay either in parks or open land held by the Town, the DEC, who owns three parcels of land for public use, and Onondaga County, who owns and operates two municipal wastewater treatment plants.

The State of New York holds ownership of the Seneca River, Oswego River and Erie Canal. Their ownership includes the river bottom and the shoreline to the "blue line". The blue line is the State's property line along waterways belonging to the canal system. This line is not always defined by the shoreline, and often includes land adjacent to the waterway. Portions of the Oneida River not belonging to the canal system are also owned by the State of New York, however while these properties include the river bottom, the property line is generally defined by the shoreline or "top of bank". Portions of the Oneida River surrounding Horseshoe Island (north of Big Bend Cut), waters north of Lock 23 and Anthony Cut (Caughdenoy Road and Black Creek Road areas), and waters flowing around Glosky and Schroepel Islands (Oswego County islands), are waters in the corridor that are owned by the State but do not fall within the canal system. Refer to Sections II.B and II.F for information regarding land use and demographics patterns within the corridor.

D. Zoning

Zoning districts within the waterfront revitalization corridor are the Residential Agricultural Districts (RA, RA-100), Limited Use for Riverfront, One-Family, Two-Family, Mobile Home and Townhouse Residential Districts (LuR-1, R-10, R-15, R-2F, R-40, R-7.5, R-MHC, R-TH), Recreational District (REC-1), Neighborhood Office and Office Districts (O-1, O-2), Limited Use for Gasoline Services and Restaurants Districts (LuC-1, LuC-2), Highway, Neighborhood and Regional Commercial Districts (HC-1, NC-1, RC-1), Industrial District (I-2), Planned Development District (PDD) and Government Controlled Land (GOV). Refer to [Figure 4 – Zoning Plan](#) showing the location of these various zoning districts. It should be noted that parcels on this plan that do not have a color designation (shown white) are within the RA-100 Zone District.

The Town has recently adapted a PDD. The intention of establishing a PDD zone is to allow a variety of land uses to be incorporated on a single or adjoining parcel(s). Combinations of land uses are permitted on a single lot, a practice that is not permitted in conventional land use zoning. In addition, the PDD zoning promotes and maintains a dialogue between the applicant and the Town before and during the site development process. Such an open dialogue, coupled with increased opportunities for mixed use, provides for creative and customized land use that is not feasible in conventionally zoned districts.

The areas currently designated as PDD include all parcels of land currently owned by the Town at Three Rivers Point and along Maider Road. Refer to Appendix B for the content of section §230-18 PDD Planned Development District of the Town Code, and to the [Zoning Map](#) presenting parcels that have been given this new designation.

The majority of the land north of Route 31 is located within the RA and RA-100 Zone Districts. These districts are intended to accommodate agricultural uses and low-density residential development. The RA and RA-100 Zone Districts also support non-residential development in areas within the Town of Clay that are not likely to be served by both public water and sewers. Several areas south of Route 31 are also zoned RA and RA-100.

Land located along the Seneca River, north of Route 31 up to the Route 57 and Three Rivers area, falls within Zone Districts R-10 and R-40. Land within the R-10 district is intended to consist of higher density, single-family housing and non-residential developed areas within the Town of Clay served by public water and sewers. Additional R-10 zoned parcels are located in the easternmost portion of the corridor and scattered throughout the corridor south of Route 31. Land within the R-40 district is intended to consist of lower density, single-family housing and non-residential developed areas within the Town of Clay not served by public water and sewers. Three other small R-40 Zone District areas are located along the Oneida River, north of Route 31.

Additional residential districts located within the corridor are R-15, R-2F, R-7.5, R-MHC, and R-TH. A single R-15 zone area is located within the corridor, south of Route 31, just west of Route 57. This zone is intended to “permit moderate-density, single-family and supportive non-residential development on sites in the Town served by both public water and sewer”. Two zone R-2F areas are located north of Route 31, near the Oak Orchard Wastewater Treatment Plant. R-2F districts are intended to “permit single- and two-family dwellings and supportive non-residential development on sites served by both

public water and sewers”. Two additional R-2F zoned areas are located south of Route 31, along Gaskin Road. Two large R-7.5 zoned areas are located within the corridor, south of Route 31. The intent of this district is to “preserve existing high-density, single-family uses and supportive non-residential development in areas served by both public water and sewers”. One large R-MHC area is located within the corridor, south of Route 31, and is currently occupied by the Casual Estates Mobile Home Park. This district “accommodates an organized and managed grouping of individual mobile home units in portions of the Town served by public water and sewers”. Two R-TH zoned areas are located within the corridor south of Route 31. One of these areas is located off Route 57 and the other is located off Gaskin Road. The designated R-TH area off Gaskin Road is only partially developed at this time, as the majority of the property consists of wooded and undeveloped/vacant land. This district is intended to “permit residential and supportive non-residential development on sites in townhouse arrangements served by both public water and sewers”.

Remaining land located northwest of the Route 31 and Route 57 intersection consists of property in Zoning Districts GOV, I-2, LuC-1, NC-1, O-2, RC-1 and REC-1. Land designated as GOV falls within Clay Code’s Specialized Districts. The zone designation is RA-100. Specialized districts are districts that allow for greater development flexibility and increased Town oversight. The Moyer’s Corner Fire Station Number 1 is located on a GOV parcel along Route 57, just north of Route 31. Additional GOV designated lands are located north of Route 31, including approximately 66 acres of Town-owned land at Three Rivers Point and parcels on Maider Road, the Oak Orchard Wastewater Treatment Plant owned by the OCDWEP and approximately 93 acres of Town-owned land just south of the Lock 23 Canal State Park. The Wetzel Road Wastewater Treatment Plant along the Seneca River is one of the three GOV designated areas south of Route 31. Two parcels just south of the wastewater treatment plant also fall within the GOV zoning designation. One parcel is owned by the Town of Clay and the other is owned by the State of New York. Both consist of wooded land.

The Atlantic Asphalt Terminal, a portion of the former Cibro Asphalt Terminal and a parcel along Route 57 north of Route 31 are classified as I-2 Districts. Land within the I-2 district is intended to “promote and accommodate processes that primarily operate in a clean and orderly manner that may involve exterior activities sensitive to environmental features and available public services. Other uses are permitted that provide the logistical assembly, shipping, storage, servicing or similar support for retail or other business uses.” It is recommended that lands within this district are located away from residential districts. The former Sears Oil Terminal, located along the Seneca River on Gaskin Road south of Route 31, is another I-2 designated area within the Waterfront Corridor.

A gasoline filling station and an automotive collision repair facility are located at Moyers Corners, on the north side of Route 31, west of the Route 57 intersection. These properties are zoned LuC-1. Land within this zoning designation includes motor vehicle and gasoline service facilities and allows them to serve residents, employees and customers of the surrounding areas. Four additional areas within this zoning designation are located along Route 57, south of Route 31. A single LuC-2 district area is located in the northernmost portion of the corridor, at a marina located at Caughdenoy Road on the Oneida River. The intent of this district is to “augment the uses of existing or planned general commercial districts with the enumerated limited uses. This district is to allow for restaurant land uses on sites that afford adequate

parking, storage and related facilities in a manner that is compatible with the existing or planned character of surrounding commercial or industrial land uses and with minimal or no adverse effect upon public facilities and environmental features.”

Three NC-1 zoned areas, made up of eight parcels, are located in the Moyer’s Corners area along Route 57 and Route 31. NC-1 designated zone areas are intended to maintain the quality of environment of commercial use areas that are often located near residential neighborhoods. The development of these areas should be comparable with nearby residential areas. Three additional NC-1 zoned areas are located within the corridor. One is located along the south side of Route 31, east of Gaskin Road. The second is located on the south side of Gaskin Road, just before its intersection with Route 57. The third is located at the south end of the corridor along Route 57.

One RC-1 zoned area is located north of Route 31, just west of Route 57. This designation is intended for diverse, large-scale commercial development that may consist of multiple lots, structures and uses. The remaining RC-1 zoned areas within the corridor are all located south of Route 31 and throughout the span of Route 57.

Three HC-1 zoned areas, made up of five parcels, are located within the corridor along Route 57, south of Route 31. The intent of this highway commercial zone is to “maintain the quality of environment that is usually found in areas of commercial use often located near, but generally not immediately adjacent to, residential neighborhoods.” The development of these areas should be comparable to surrounding moderately concentrated business areas.

Four O-2 designated zone areas, made up of five parcels, are located in the vicinity of Moyer’s Corners. These areas are located along the north and south sides of Route 31, and on the west side of Route 57, just south of Route 31. This district is intended for office uses that preserve the existing residential quality along portions of the Town’s major roads. Four O-1 designated zone areas are located within the corridor along Route 57, south of Route 31. These Neighborhood Office Districts are intended to “preserve the existing residential quality of the surrounding area while permitting alternative and compatible office development on selected sites that may not be suitable for residential use.”

One large area, consisting of two parcels zoned REC-1, is located along the north side of Route 31, between the Seneca River and Route 57. This area of land is currently utilized by a public golf course. This zone designation is intended to preserve and enhance the quality of existing or planned residential areas through a variety of community and recreational uses. Two additional REC-1 zoned areas are located within the corridor north of Route 31. One area, Pirates Cove Marina and Restaurant, is located just south of Horseshoe Island.

The second area is located in the northernmost portion of the corridor, between the Oneida River and Black Creek Road.

One large PDD district is located within the corridor. This area is located southwest of Moyer’s Corners and has road frontage along Route 31, Route 57 and Gaskin Road. A portion of this area also has frontage along the Seneca River. The intent of the PDD district is to permit a “variety of land uses and a

flexible arrangement of lots, structures and land uses in a well-planned and coordinated design.” The majority of this PDD district within the corridor consists of residential land. A church, park space, and wooded and undeveloped/ vacant land occupy the rest of this area.

The New York State Canal Corporation holds flowage easements along various stretches of the Oneida and Seneca Rivers. In the Town of Clay, flowage easements exist on portions of Horseshoe Island, along the southern end of North Gaskin Road and west of Route 57, north of Bel Harbor Drive.

E. Natural Resources

E.1. Site Topography

Review of the United States Geological Survey (USGS) Baldwinsville North (1973), Brewerton (1973) and Central Square (1956) quadrangle maps illustrates that the elevation of the Waterfront Corridor ranges from approximately 360 to 420 feet above sea level. The Waterfront Corridor boundary is located primarily in the areas of the Erie-Ontario Lowlands, slightly sloping from north to south, with rolling landscape bordering the area to the south. Most of the corridor along the Oneida River is rural with a mixture of residential and commercial areas, with some portions occupied by low-lying marshes. Residential areas along the Seneca River portion of the corridor predominantly cover the landscape.

E.2. Bedrock Geology

Based on the Geologic Map of New York 1970 Finger Lakes Sheet, the majority of the Town of Clay is underlain by three geological formations:

The **Vernon Shale Formation** is located along the south boundary of the corridor. This bedrock formation is comprised of shale and dolostone, and can be found at depths of approximately 700 to 1,000 feet below the ground surface.

The **Oak Orchard and Penfield Formation** is comprised of limestone and dolostone. This bedrock formation can be expected to be at depths of approximately 80 to 175 feet below the ground surface.

The **Herkimer Sandstone; Kirkland Hematite; Willowvale Shale; Westmoreland Hematite; Sauquoit Formation** predominates the northern portion of the corridor north of Bonstead Road and Oak Orchard Road. This bedrock formation can be comprised of sandstone, shale and/or Oneida Conglomerate, and can be expected at depths of approximately 150 to 325 feet below the ground surface.

Refer to [Figure 5 – Bedrock Geology](#) for additional information.

E.3. Surficial Geology

The Town is located in an area where three surficial soil deposits have been mapped by the USGS and are depicted on the Surficial Geologic Map of New York, Finger Lakes Sheet, 1986. These three surficial soil deposits consist of “Lacustrine Silt and Clay”, “Lacustrine Sand” and “Swamp Deposits”. The Lacustrine Silt and Clay, along with the Lacustrine Sand, were deposited in a glacial lake environment. The Lacustrine Silt and Clay deposit is generally laminated, with layers alternating between silt and clay

and/or a combination of these soil materials. This deposit can form fairly impermeable, potentially unstable lands, which can range in thickness up to approximately 165 feet. The Lacustrine Sand deposit consists of well-sorted stratified quartz sand that was deposited in near-shore environments. This deposit is fairly permeable and can vary in thickness from approximately 6 to 70 feet. Swamp Deposits are soils made up of peat-muck, organic silt and sand located in poorly drained areas. This deposit can be commonly found overlying marl and lake silt deposits. Swamp Deposits can potentially cause land instability issues. The thickness of this deposit can range in from approximately 6 to 65 feet. Refer to [Figure 6 – Surficial Geology](#) for additional information.

E.4. Soils

Based on the United States Department of Agricultural, Soil Conservation Service (SCS), 1977 Soil Survey of Onondaga County, New York, a loam soil with varying percentages of silt, sand and gravel content is found throughout the area. A majority of the soils were formed from landscapes of lake-plain and valley areas dominated by deep soils that formed in silty or clayey glacio-lacustrine sediment. The soils associated with this group are moderately well drained to very poorly drained, and are medium to moderately fine textured with lime content from medium to high.

These soils are well suited for farming. Although limiting factors such as erodability, seasonal wetness and the slow rate of permeability into the substrata can make it difficult for urban use. Refer to [Figure 7 – Soils Map](#) for additional information.

E.5. Water Quality

Water quality in the Seneca and Oneida Rivers from Cross Lake to Oneida Lake is monitored by an ongoing study being completed by the OCDWEP. This study has seven sampling locations in the two rivers within the Town of Clay. Data collected from these locations includes water temperature, dissolved oxygen, specific conductivity, salinity, pH and oxygen reduction potential (ORP).

Onondaga County has performed water quality monitoring at selected stations along the Seneca-Oneida-Oswego River system since 1993. The water quality survey study area spans the Seneca River from Cross Lake to Three Rivers junction, as well as portions of the Oneida and Oswego Rivers. The most recent report, dated November 2007, covers the 2006 monitoring period. The wet summer of 2006 kept stream flow high in the Seneca River throughout most of the summer and prevented violations of ambient water quality standards for ammonia-nitrogen and nitrite-nitrogen. Frequent measurements detected brief periods where dissolved oxygen concentrations dropped below the standards. Overall, water quality data collected from the Seneca River during 2006 was comparable to the data collected in previous surveys. The introduction of zebra mussels in the early 1990's resulted in dramatic changes in water quality in the river. The river's water quality conditions continue to be strongly influenced by zebra mussels.

There are two municipal wastewater treatment plants within the Town of Clay. Both of these plants are owned and operated by the OCDWEP. The Wetzel Road treatment plant is located on the west end of Wetzel Road, on the east shore of the Seneca River, and is a trickling filter secondary treatment plant

with post-chlorination. Typical daily flow through this plant is approximately 2.5 million gallons. The Oak Orchard treatment plant is located on Oak Orchard Road, on the south shore of the Oneida River. Typical daily flow through this plant is 5.7 million gallons. This plant employs the pure oxygen aeration activated sludge process.

While not documented, there are other point source discharges of stormwater to both rivers from highway and private drainage culverts.

There are also point source discharges to the Seneca and Oneida Rivers upstream of the Town of Clay from other municipal and industrial wastewater treatment plants. While outside the Town, these discharges contribute to the water quality in the Waterfront Corridor.

For more information on the water quality monitoring and studies being conducted by the OCDWEP, refer to their 2006 Annual Report and their Three Rivers Water Quality Model, both of which are available on their web site (<http://www.ongov.net/WEP/>).

Non-point discharge sources to the Rivers include overland runoff, roadway runoff and stormwater runoff from agricultural fields.

Both the Seneca and Oneida Rivers are classified by the DEC as Class B waters. Class B waters are suitable for primary and secondary contact recreation and fishing. Class B waters are also considered suitable for fish propagation and survival. Tributaries to the Rivers along the Waterfront Corridor are primarily Class C waters. Suitable usage for Class C waters is fishing.

E.6. Wetlands, Flooding and Erosion Control

Wetlands are defined by the United States Army Corps of Engineers (ACOE) and the United States Environmental Protection Agency (EPA) as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and, that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marches, bogs and similar areas.” Wetlands are protected under the 1977 Clean Water Act and Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act). Due to their high level of nutrients, wetlands are very productive ecosystems. They sustain a vast array of plant life, that in turn supports a wide variety of wildlife. In addition to their habitat value, wetlands serve to mitigate flood damage and filter excess nutrients from surface runoff.

Wetlands in New York State are regulated by both the DEC and the ACOE. The DEC regulates wetlands that are 12.4 acres in size or larger and smaller wetlands of unusual significance. The ACOE regulates areas meeting the definition of a wetland regardless of size. A permit is required to perform any work resulting in the disturbance of a DEC- regulated wetland or the disturbance to any area within 100 feet of a designated wetland. The ACOE does not require a permit (notification only) for disturbances of less than 0.1 acres. A permit is required by the ACOE for projects that disturb more than 0.1 acre. (A nationwide permit is used for disturbances less than 0.5 acres. An individual permit specific to the project being undertaken is required for disturbances over 0.5 acres).

All development within the Waterfront Corridor must take into consideration its proximity and potential impact to designated wetlands.

There are 125 individual State and Federal designated wetlands comprising approximately 1,650 acres within the Waterfront Corridor (20% of the total corridor acreage). These wetlands include 21 different classifications, as designated by the United States Fish and Wildlife Service (FWS) and 15 different wetland areas as identified by the DEC. All of these wetlands are shown on [Figure 8 – State and Federal Wetlands](#).

Wetlands assist in the mitigation of flooding by providing a reservoir for flood waters and reducing flow velocity during periods of high water. As low areas and wetlands are filled in, high water events influence larger portions of the river basin. The concern for flooding along much of the Waterfront Corridor is limited to areas directly adjacent to the Seneca and Oneida Rivers. However, there are five locations where the potential for flooding extends well beyond the natural course of the rivers and presents a threat to widespread areas of development. These five areas are:

West of Route 57, from the northern boundary of the Bayberry Community to Gaskin Road.

- Horseshoe Island.
- Along Oak Orchard Road.
- West of Caughdenoy Road, north of the Erie Canal.
- The south shore of the Oneida River, at the east end of the Erie Canal.

[Figure 9 – Flood Zones](#) shows limits of the 100-year and 500-year floods, as based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps. Flooding has not been a significant threat to real property in the Town of Clay over the past 50 years. Since 1970, there have been just four declared Presidential Disasters in Onondaga County resulting from rain and storm events. Real property damage Countywide from these four events is reported to have been \$683,000 (in dollars at the time of each event). Of this property damage, 85% was attributed to a single event occurring in September of 1998. It is unknown what fraction of this property damage was suffered in the Town of Clay. If it is assumed that 50% of these damages were suffered in the Town, that amounts to an average real property damage of less than \$10,000 per year for this time period.

The Town of Clay participates in the National Flood Insurance Program (NFIP). As a requirement of this program, the Town has adopted a floodplain management ordinance. This ordinance is intended to minimize public and private losses due to flood conditions. In response to the requirements of the Disaster Mitigation Act of 2000, the Town has also developed a Hazard Mitigation Plan. This plan is designed to improve planning for response to and recovery from disasters, including flood events. The Town of Clay Hazard Mitigation Plan was completed by Tetra Tech EM, Inc. in December 2005. The Plan ranks flooding as a moderately high hazard for several locations within the Town of Clay. Flooding within the Town of Clay typically occurs along the central west side of the Seneca River (Foster Road and Wetzel Road areas), the northwest branch of the Oneida River (Horseshoe Island area) and along the west side of the northeast branch of the Oneida River (Riverview Road, Black Creek Road and Riviera Drive areas). When these areas of the rivers rise, Mud Creek and Willow Stream are also prone to

flooding. Areas west of Route 57 are also susceptible to flooding because of increased runoff and drainage, which is most likely a result of increased development and impermeable surfaces.

Erosion has not been identified as a major concern by the Town. No areas of critical erosion have been located within the Waterfront Corridor.

E.7. Aquatic Species and Wildlife Habitats

E.7.a. Aquatic Habitats

The Seneca and Oneida Rivers meet at the northwest corner of the Town of Clay at Three Rivers Point. This is a union of three interconnected freshwater ecosystems referred to as the Oswego River Basin. Refer to [Figure 10 – Oswego River Basin](#).

To the north of Three Rivers Point, the Oswego River flows into Lake Ontario. To the east, the Oneida River flows from Oneida Lake, draining a watershed that extends east to the southeast corner of the Tug Hill Plateau. To the west, the Seneca River receives water from a majority of the Finger Lakes and several other water bodies. The total Oswego River watershed is approximately 5,122 square miles. Approximately 96% of the total flow from that watershed flows by Three Rivers Point (Kappel, 2002).

E.7.b. Terrestrial Habitats

The terrestrial area bordering the rivers is diverse and consists of both uplands and wetlands. Included in these areas are deciduous forests, open fields and varieties of wetlands. Elm, black ash, beech and red maple are prevalent tree species found throughout the Waterfront Corridor. Thick stands of various conifers are found along the Oneida River. Grasses, sedges and a variety of rushes make up the areas of unfarmed open field. Dogwood, ash and thorn-apple stands are common scrubs found throughout the corridor.

E.7.c. Aquatic and Terrestrial Ecology

This ecosystem supports a large and diverse population of animals. Through several separate surveys that have been conducted over the last 25 years, it is estimated that there are 123 bird species (New, 2005), 24 species of amphibians, 23 species of reptiles, 58 mammal species (Chambers, 1983) and well over 130 species of macro invertebrates, including insects and worms (Onondaga, 2003). The dominant mollusk species of the area is the invasive Zebra Mussel, whose long-term effects on the environment are still unknown. Tables 1, 2 and 3 in Appendix F list the individual species from the separate surveys conducted. It is reasonable to assume that most of these species could be located in the waterfront corridor. There have been several accounts of aquatic life, including zebra mussels (Lake Ontario), tiger musky (Otisco Lake), brown trout (Nine Mile Creek) and lake sturgeon (Oneida Lake), that have all migrated through the river systems to be caught or located in different waterways (Onondaga, 2003).

Individual projects should be sensitive to the habitat and breeding grounds of the many species that live and migrate through this region. New development should contact the New York State Natural Heritage Program and the FWS to locate endangered or protected wildlife that may be on or near a particular

project site. When contacting these agencies regarding a new project, the following information should be provided:

- Why the information is needed.
- Description of the project.
- Description of current land use.
- Name of town and county.
- USGS topographical map of the area, with the boundary of the proposed project clearly marked.

Letters can be addressed to:

- New York State Department of Environmental Conservation
Natural Heritage Program
625 Broadway, 5th Floor
Albany, New York 12233-4757
- United States Fish and Wildlife Service
3817 Luker Road
Cortland, New York 13045

E.7.d. Current Research and Monitoring

Many projects monitoring water quality and its impact on aquatic species in Onondaga Lake have also included studies of the Seneca and Oneida Rivers. Agencies involved in these studies include the OCDWEP, DEC, New York State Attorney General Office, Atlantic States Legal Foundation, EPA, ACOE and USGS. Many of these studies attempt to present a correlation between aquatic ecology and water quality.

E.8. Environmentally Impacted Sites

Three parcels within the Waterfront Corridor are known to have been environmentally impacted from past site uses.

The former Cibro asphalt plant is a 66-acre site located on the west end of Maider Road. From the 1920's to the 1990's, this site was a bulk storage facility for fuel oil and asphalt. This facility included waterfront docks on the Oneida River for unloading petroleum products from barges. A number of underground and aboveground storage tanks have been removed from the site. The Town of Clay was approved for funding with the DEC's Environmental Restoration Program. Investigations for water and soil contamination are currently underway.

Also located on Maider Road across the road from the former Cibro facility is a former Atlantic Refining Company Asphalt Terminal. This site is known to have been a storage facility for naphtha, kerosene and asphalt. Fuel oil may also have been stored at this location. Contamination investigations are currently underway on this site.

The former Town of Clay landfill is located in the Waterfront Corridor on the north side of Oak Orchard Road. This site has been closed since the mid-1980's. The landfill is on the DEC's list of inactive hazardous waste sites for disposal of hazardous materials including polychlorinated biphenyls (PCBs), benzene, arsenic, phenols, chlorobenzene and xylene. The landfill area covers approximately 22 acres, rises about 50 feet from the surrounding topography and the sides are gently to moderately sloped. Remediation completed included the installation of an impermeable cap. The site has an ongoing groundwater monitoring program. Monitoring indicates the contaminant levels in groundwater have decreased since the landfill was capped and the occurrence of leachate has subsided. The site is not deemed a significant threat to the environment. There is documented groundwater contamination in monitoring wells at the site; however public water was extended to the area.

F. Demographics

The Town of Clay has a total population of approximately 59,000. Approximately 90% of the population was reported as "White" in the 2000 Census, with the remaining population reporting to be African American, American Indian, Asian, Pacific Islander or other race. This population is housed in approximately 24,000 housing units, with 73% of these units owner-occupied. Approximately 27% of the units are renter-occupied. Less than 5% of housing units in the Town are vacant. Owner-occupied residences in the Town have a median value of approximately \$85,500. The median monthly cost to owners of these homes is approximately \$1,050 (including mortgage payment).

Approximately 64% of the Town's population is reported to be 25 years or older. Of this portion of the population, 90% hold a high school diploma and approximately 28% have a college bachelor's degree or higher. Approximately 69% of individuals over 25 years of age are reported to be married.

Of the total Town population, 5% is reported to have been born outside the United States. Seven percent of the population speaks a language other than English in their home.

The Town is home to approximately 6,000 military veterans.

Within the Town's population, approximately 33,000 individuals over the age of 16 are in the labor force. The median household income is reported to be approximately \$50,500 (1999 dollars). Approximately 4% of families and 6% of individuals living in the Town are reported to be living below the poverty level.

There are approximately 2,800 tax parcels within the Waterfront Corridor. Approximately 2,700 of these are residential lots, with one property consisting of an 804-lot mobile home park that is generally 50% occupied. A number of parcels are occupied by multi-family housing units. There is estimated to be 4,200 housing units in the Waterfront Corridor. Approximately 70% of these units are owner-occupied and 21% are renter-occupied. Less than 10% of housing units in the Waterfront Corridor are vacant.

Based on 2000 Census data, total population in the Waterfront Corridor is estimated to be approximately 9,500. The median age is 38 years.

G. Public Recreational Resources

The Town of Clay owns and operates 31 parks located throughout the Town. Twenty-seven of these facilities are neighborhood parks located in subdivisions. Four sites are larger town-wide parks. Town park lands total approximately 300 acres. Neighborhood parks account for approximately 124 acres and town-wide parks account for approximately 180 acres. The Town also has a historic park, which is a 2-acre facility consisting of a welcome center, historic train station, log cabin and barn.

Town-wide parks are all over 10 acres in size and generally consist of a pavilion, ball fields, tennis courts, basketball courts and playground equipment. Neighborhood parks are generally less than 10 acres and include a combination of open green space, picnic tables, playground equipment and basketball courts.

Three town parks are located in the Waterfront Corridor. Bel Harbor Park, Anchor Park and Kimbrook Park are all neighborhood parks that lie within the designated waterfront revitalization area. These parks total approximately 5 acres and each is intended to provide open space and children-related recreational opportunity to their surrounding neighborhood. These three parks are not directly adjacent to the waterfront, although Bel Harbor Park and Anchor Park are in neighborhoods that do include waterfront property. None of these parks provide access to the water, nor do they currently have water-related recreational activities.

The Town of Clay also owns two tracts of land that, while not designated as parklands, provide opportunity for future public recreational access. A 93-acre tract of land located on Black Creek Road is former agricultural land that is owned by the Town. This parcel is currently undeveloped and consists of overgrown fields and woodlands. A power transmission line right-of-way crosses the parcel. This land is adjacent to the Erie Canal and borders the New York State Canal Corporation's Lock 23 Canal Park. This property's proximity to the waterfront and Canal Park provides an excellent opportunity for future development as a recreational facility linked to water-related activities.

The Town also owns a number of adjoining parcels located on Gaskin Road, Route 57 and Maider Road that total approximately 65 acres. These parcels consist of former commercial, residential and industrial land that is currently vacant. Located in the immediate vicinity of Three Rivers Point, this land has potential for future waterfront recreational development that could be linked to any development that may take place at Three Rivers Point.

The DEC operates and maintains one boat launch facility within the Town of Clay. This facility, located on Bonstead Road beneath the Interstate 481 overpass, includes a boat launch ramp and vehicle parking. This site is open to the public and there is no charge for its use. Three marinas are also located within the Corridor. Aside from the DEC boat launch and the two public marinas, boat access and public shoreline access are very limited.

Input from the Stakeholders Group and comments received during public forums indicate the need for additional waterfront access and boat launch sites. The DEC launch site and two marinas located west of Three Rivers Point provide sufficient boat launch sites on the Oneida River. Boat launch facilities in the Town of Clay along the Seneca River are, however, quite limited.

Since much of the river frontage in the Town of Clay is privately held, public access to the waterfront is limited along the entire waterfront corridor. Input from the Stakeholders Group and comments received during public forums indicate a wish by the general public for increased access to the waterfront shoreline for recreational use.

As a result, increased river access will be a top priority when determining future waterfront development opportunities.

H. Transportation

Due its location between the Syracuse metropolitan area and lower density village and city centers to the north, a number of north-south transportation routes cross through the Town of Clay. Major north-south routes include County Route 57, New York State Route 481, Morgan Road, Henry Clay Boulevard and Caughdenoy Road. East-west transportation routes include Taft Road, Buckley Road, NYS Route 31, John Glenn Boulevard and VerPlank Road. [Figure 11 – Transportation Routes](#) shows all major routes through the Waterfront Corridor.

Major access routes to the Waterfront Corridor are NYS Route 31, County Route 57, Morgan Road and Caughdenoy Road. While Interstate 481 crosses the Oneida River, it is a limited access highway with only one interchange in the Town, that being both north and southbound exits at Route 31. Because of this limited access, the Interstate does not provide direct access to the waterfront areas.

While not main thoroughfares, a number of roads intersecting the major access routes provide direct access to the waterfront. Numerous side streets off Route 57, particularly in the Bayberry Development on the west side of Route 57 in the southern portion of the Town, provide access directly to the Seneca River and a number of riverfront residences. Gaskin Road runs directly along the Seneca River, connecting to Route 57 north and south of Route 31. Gaskin Road provides direct access to waterfront property and residences. Gaskin Road North also provides direct access to property and residences along the Seneca River.

Maiden Road, Bonstead Road and Oak Orchard Road provide access to low density development along the Oneida River and Erie Canal. Horseshoe Island Road provides access onto and along the east shore of Horseshoe Island.

Three Rivers Point is accessible from Gaskin Road North and Route 57. Three Rivers Point is a key waterfront area in the Town and is proposed to be a site for waterfront revitalization.

Rail access is also available through the Town by means of two CSX rail lines. One of these lines, a north-south route linking rail yards in Syracuse with Phoenix, Fulton and Oswego, runs parallel to Route 57 and cuts through the Waterfront Corridor. At the present time, there is no passenger service along this rail line. There is a rail siding on this line near the Route 57/Maiden Road intersection.

Commercial truck traffic within the Waterfront Corridor is available on Route 31, Route 57 and Route 481. Commercial truck traffic on all other Town streets and roads is limited to local delivery.

Routes 31 and 481 are state highways, owned and maintained by the New York State Department of Transportation (DOT). Gaskin Road, Horseshoe Island Road, side roads off Route 57 and a portion of Maider Road are Town roads, owned by the Town and maintained by the Town of Clay Highway Department. All of the other roads mentioned in this section, including Route 57, are County roadways, owned and operated by Onondaga County. The Town of Clay Highway Department and Onondaga County Department of Transportation (OCDOT) have reported that none of these roadways or the Horseshoe Island Road or Caughdenoy Road bridges over the Erie Canal is slated for any major capital improvement projects.

I. Public Services

The Town of Clay provides water and sanitary sewer services to various locations in the Town. Portions of the Waterfront Corridor are included in these service areas. [Figure 12 – Water Service](#) and [Figure 13 – Sewer Service](#) show the locations of water and sanitary sewer services in the Waterfront Corridor.

Public water service is provided by the Town throughout the entire portion of the Waterfront Corridor south of Route 31. Water service north of Route 31 is limited to the areas shown on [Figure 12](#).

Sanitary sewer service is provided throughout the majority of the Waterfront Corridor south of Route 31, with the exception of a small group of parcels along Gaskin Road just south of Route 31 and a small group of parcels along the Seneca River just north and south of Wetzel Road, including the parcels along Foster Road. Horseshoe Island Road is the only area within the corridor that has sanitary sewer service north of Route 31. The Horseshoe Island sewer is a pressure sewer system that was installed in 2003 and discharges to the Oak Orchard Wastewater Treatment Plant.

National Grid provides electrical service throughout the entire Waterfront Corridor and natural gas services in portions of the Corridor. [Figure 14 – Natural Gas Distribution Service](#) shows the extent of the service area.

J. Waterfront Issues, Opportunities and Constraints to Development

J.1. Waterfront Issues

In order to identify issues pertaining to the Town of Clay waterfront, a panel of citizens from the community was assembled. Members of this panel, referred to as the Waterfront Stakeholders Group, include private property owners, representatives of homeowners associations and business owners who live and/or work in the Waterfront Corridor. Each member of the panel has a particular interest in future development of the Town's waterfront. Members of the Stakeholder Group are: James Rowley, Town Supervisor; Naomi Bray, Town Councilor; Robert Carter, life-time resident of Gaskin Road Thomas Kraft, resident of Bonstead Road Richard Lobevero, resident of Horseshoe Island; James Palumbo, resident of the Bayberry Community Christine Rahrle, resident of Oneida River Park Drive Howard Snow, resident of Jackson Road; Paul White, resident of Bonstead Road and owner of Pirates Cove Marina.

The Stakeholders Group has met on three occasions to discuss the preferred direction in which future waterfront development should proceed and to identify specific needs within the community regarding waterfront development. The following issues have been identified by the Stakeholders Group:

- The significance of Three Rivers Point to Native American heritage should be recognized.
- The history of Three Rivers Point as the location of a former world-class entertainment nightclub and destination motel should be recognized.
- Future waterfront development should include a mix of residential, retail, office space and public open space to promote a “waterfront village” atmosphere.
- Three Rivers Point should be developed as a destination attraction accessible by both land and water.
- Adjacent waterfront developments (specifically Three Rivers Point and Maider Road) should be linked by pedestrian walkways and limited-access roadways.
- Access to the waterfront for boating and shoreline fishing is limited and should be increased.

J.2. Opportunities for Waterfront Enhancement and Development

Issues raised by the Stakeholders Group were used to formulate broad planning goals for future projects within the Waterfront Corridor. The following opportunities for development along the waterfront were identified:

- Development of the now vacant Three Rivers Point into a multi-use center, including residential housing, office space, retail space, dining establishments and public open space. This center will include elements commemorating the Native American historic significance of this location and recognition of this site as a former world-class entertainment nightclub. Views of the waterfront will be emphasized in this development. Development is intended to create a destination point for boaters traveling the waterway and for the general public. Public docking and access from the water will be included.
- Development of former industrial sites along Maider Road into a mixed residential/ retail community. Included will be new residential developments, docking facilities, a riverfront walkway and connecting greenways.
- Construction of a boardwalk linking Three Rivers Point with the proposed Maider Road development. Where possible, this would be a riverfront pedestrian boardwalk.
- Construction of new and/or improvement of existing public boat launch facilities.
- Development of public shoreline fishing locations.
- Development of the Town-owned land on Black Creek Road in a way that complements the Lock 23 Canal Park.

J.3. Constraints to Waterfront Development

The following constraints to the broad planning goals listed in Section IV.B have been identified:

- Route 57, separating Three Rivers Point from Maider Road, presents a physical barrier to linking these two sites with a pedestrian walkway.

- The volume and speed of traffic on Route 57 presents somewhat of a constraint to the proposed development at Three Rivers Point.
- The CSX rail line crossing Maider Road will need to be taken into consideration when designing a pedestrian link between Three Rivers Point and Maider Road.
- Environmental remediation activities at the industrial sites on Maider Road must be completed before development of these sites can proceed. Consideration should be made for the future redevelopment of these sites when undergoing remediation operations.
- The lack of municipal sanitary sewers on portions of Maider Road will influence the density of future developments in this area.
- The lack of public municipal water service along portions of Maider Road may influence the density of future developments in this area.
- The present configuration of Maider Road may limit waterfront access and residential development in this area.
- The lack of municipal sanitary sewers will need to be taken into consideration when developing the Town's Black Creek Road site.