

Chapter 3

Context



Waterfront Land Use Plan
Town of Tonawanda



Figure 3-1: Study Area & Niagara River

Chapter 3: Context

The study area is a defined geographic boundary in a larger community. And that community is an integral component of a larger region. To better understand the issues and needs as well as define opportunities and constraints for the study area, it is important to consider the surrounding area and think about the bigger picture.

This chapter provides a glimpse of the broader conditions that can and should influence the defined geographic boundary focused on in much of this plan. The information contained in the chapter has been explored in more detail in other documents and resources. The summary information included here provides the context.

Community Profile

The Town of Tonawanda is located in the northwest corner of Erie County. The Town is bordered to the north by the City of Tonawanda, to the east by the Town of Amherst, to the south by the City of Buffalo and to the west by the Niagara River. Tonawanda, which includes the Village of Kenmore, is home to approximately 73,500 people.

A first-ring suburb of the City of Buffalo, the Town consists of a diverse mix of uses with two very distinctive areas separated by Military Road/State Route 265. The eastern portion of the Town is primarily residential in nature with commercial areas located along major thoroughfares and community services scattered throughout. The western section contains some residential areas, but is primarily industrial in nature and consists of a sizeable concentration of very large industrial parcels.

Brief History

Although the Town was officially incorporated in 1836, its history can be traced back to the early 17th century. The first settlers to the area appeared circa 1805.

The area's fertile lands initially spurred agricultural development and settlement. The Niagara River served as

Keystone of the Niagara Frontier

It was once tagged the "Keystone of the Niagara Frontier." Certainly, it remains one of the leading towns in Western New York. The Town of Tonawanda can boast of spawning the Niagara Frontier's pioneer suburban village, becoming the first to develop an extensive and varied industrial base, and being the first town to exceed a population of 100,000 people. The Town of Tonawanda's history has passed through successive stages of agriculture, industry, and suburbanization over the past century.

Source: Buffalo History Works

a natural transportation system, which promoted agricultural industry throughout the area.

The Erie Canal was completed in 1825 . The Canal utilized Tonawanda Creek for a distance before turning south and following the present-day route of River Road and Interstate 190 and terminating in the City of Buffalo. In 1836, the Buffalo and Niagara Falls Railroad was completed, which expanded the area's access to goods and resources, especially to and from the Midwest. The canal moved goods west, but also moved a multitude of people west. These new transportation systems brought immigrants from Ireland, Germany, England, Poland and Italy.

The Erie Canal Canal's completion marked the beginning of Tonawanda's birth as a leader for industrial development. The various transportation systems that traversed the area, coupled with the availability of land and spurred significant commercial and industrial growth along the waterfront.

Tonawanda unloaded its first cargo of lumber for distribution in 1867. The business increased at a rapid rate until, by 1890, over 700,000,000 feet of sawed lumber was docked. In addition, large quantities of other forest products were docked at the Tonawanda: shingles, laths, fence posts, railroad ties. At one time as many as forty lake vessels wintered in Tonawanda harbor.

By the turn of the century Tonawanda and North Tonawanda, jointly known as "The Lumber City", was the largest lumber supply center in the world. Though they held that distinction only briefly, they were second only to Chicago for many years.

Although the original canal route between Tonawanda Creek and the City of Buffalo was filled in in the early 1900's, the waterfront and adjoining area continued to attract more industries and manufacturing facilities. Many industries located long the Niagara River around the turn of the century. This riverside section of the town attracted a considerable number of workers from Serbia, Croatia, and Hungary who provided the work force for the new riverfront industries.

The employment opportunities, industrial tax base, and restriction of heavy industry to the western portion of the town encouraged additional suburban growth in Kenmore. By the 1920s the town was a home for electrical power generation, and steel, rubber, chemical, and aircraft plants. Other industries, such as oil refining and auto manufacturing, would follow a decade later. The Village of Kenmore's population grew by 500 percent over the next decade. It was settled predominately by upper and middle class white anglo saxon protestants (WASPs),

A rapid immigration of new people to the town who were employed by the burgeoning war industries necessitated construction of low-cost housing in a community which was very "middle class." The development of the Sheridan Parkside housing project raised concerns at the time. After the war, a higher number of people from different ethnic backgrounds began to move into the village, especially from Buffalo's west side. The formerly "WASP" Kenmore took on a more cosmopolitan character as Italians, Poles, and by 1964, African-Americans made their homes in the village.

This time also brought extensive development of new middle-class housing throughout the town. Within that decade most of the idle farmlands were developed by builders, The town's population nearly doubled from 55,270 in 1950 to 105,032 in 1960. In order to ensure the quality of life residents of the town had come to expect, a new water treatment plant, modern sewage and garbage disposal, and a vast storm sewer system were constructed.

At its height of development, the Town's population levels exceeded 107,000 and was sustained near this level until the 1960's. That marked the turning point in manufacturing and the entire region began to experience industrial decline.

A number of industries are still located along the Tonawanda waterfront, although not as numerous as in the past. The presence of industries also included a number of waste disposal sites, some of which remain active today, containing a wide range of substances. With the closure and downsizing of several industries in the area and a continued interest in waterfront, the Town is



In this historic, undated photo of the waterfront, small houses and cottages are located along the Niagara River with industry visible in the background. This is in the area of the present-day small boat launch looking north. © Town of Tonawanda



Views in and around the current Cherry Farm property show a much different picture of the area. A bridge carries traffic over the original Erie Canal (top) and a farmhouse along present-day River Road (bottom). © Town of Tonawanda

evaluating new opportunities to revitalize the area. The community's vision includes redevelopment of the area for public uses as well as businesses and industries that complement the waterfront without degrading it.

Regional Position

Within Erie County, the Town of Tonawanda is the third-largest community, including the Village of Kenmore. The density of industrial development in the mid to late 1900's helped to solidify the Town's importance in the region, even without the presence of the canal. The concentration of industrial and manufacturing facilities along the waterfront served as a prominent employment center throughout the Erie-Niagara region, the largest outside of the City of Buffalo.

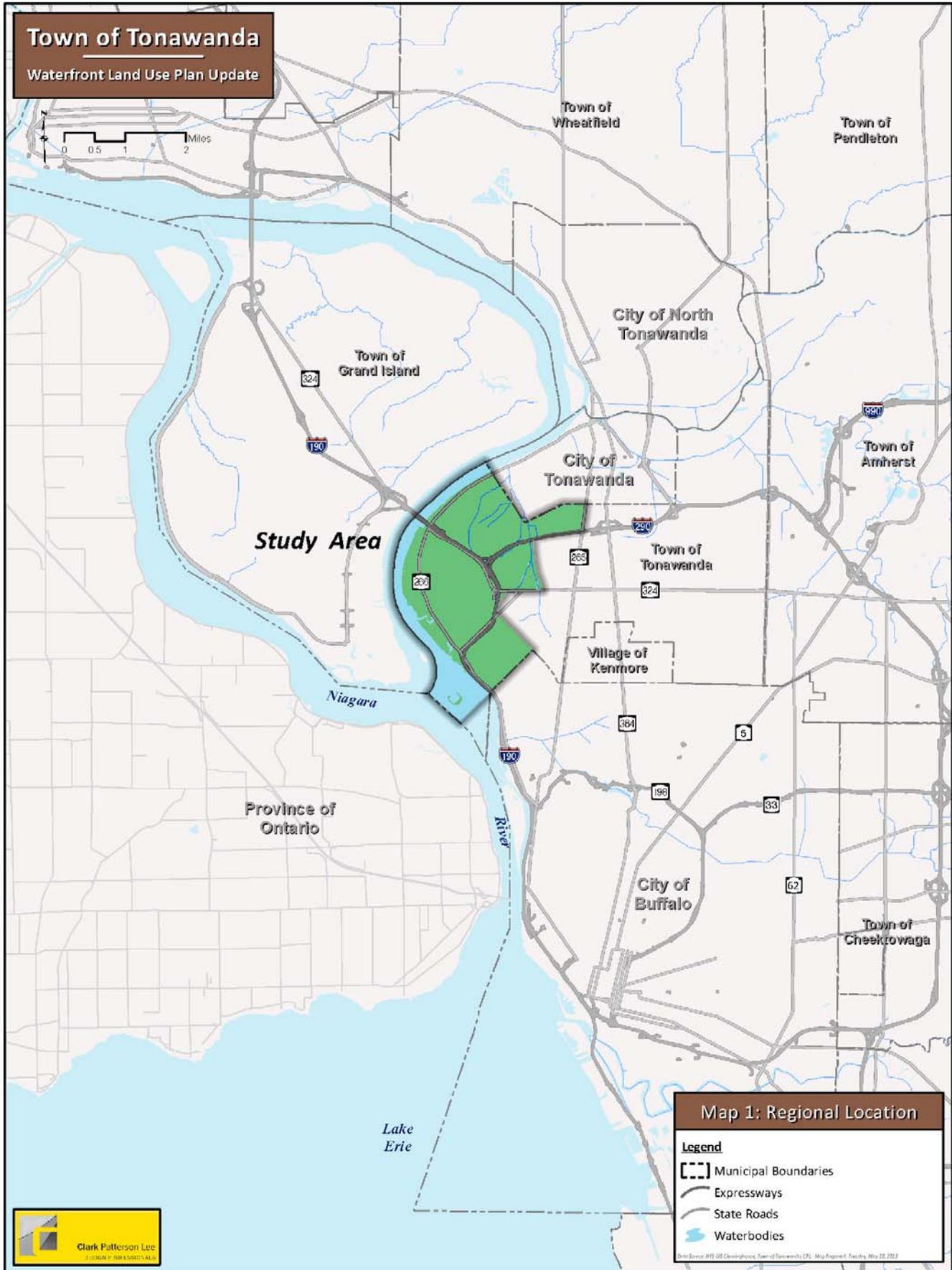
Although the number of industries have declined since the 1980's, several sites, including DuPont, GM Powertrain, Dunlop, Erie County Water Authority and NRG's Huntley plant, maintain a strong presence in the region and will likely continue in the near future.

Chapter 4

Study Area Profile



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Chapter 4: Study Area Profile

The study area's pattern of development, mix of land uses, building types, natural features, and environmental conditions reflect the Town's history and its evolution of development over time.

An overview of current conditions helps tell the story of past events and helps us understand how previous policies and decisions have shaped the community, particularly the waterfront portion of the Town.

This chapter explores existing conditions through mapping and supporting narrative. It incorporates findings from other relevant plans and reports that were available at the time this plan was undertaken.

It is not intended to be an exhaustive assessment of the area or a parcel-by-parcel description within the defined boundary. Instead, this chapter provides a basis for the land use plan, future programming and development recommendations and potential target area improvements set forth in subsequent chapters of this plan.

The study area profile broadly describes existing conditions and outlines the potential opportunities and constraints associated with the physical and natural features of the study area. These conditions influenced the Town's vision and goals, and they will have a critical impact on future enhancements within the boundary.

All of the map graphics provided in this chapter are included in Appendix A.

Inventory and Analysis of Existing Physical and Environmental Conditions

Study Area Location

The study area is comprised of over 820 parcels on approximately 3,200 acres and features approximately 6 miles of Niagara River shoreline. The study area in the context of the greater Buffalo-Niagara region is shown on Map 1 on page 24. Located entirely within the Town of Tonawanda, the study area borders the City of Tonawanda to the north and the City of Buffalo to the south. The eastern boundary is generally located along the edge of Sheridan Park and Kenmore Avenue. Grand Island is located directly across the Niagara River and is connected directly to the study area via the South Grand Island Bridge.

Strawberry Island is situated in the Niagara River within the boundary of the study area as well. The island was originally around 100 acres in the early 1800's, doubled in size in the early 1900's from Black Rock lock construction deposits, then later reduced to its present size (~10 acres) due to dredging from private interests and erosion. It is home to various wildlife including great blue herons and great egrets; restoration efforts between 1993-2002 have stabilized the island and kept the island intact. Although Strawberry Island is a critical natural feature within the study area, it is not the subject of examination or future planning by the Town as it is owned by the State Office of Parks, Recreation and Historic Preservation.

Map 2 provides a detailed view of the study area's location and key properties within its boundary, including Town and County parks, trails, three landfills, the Town of Tonawanda Water Treatment Plant, various industries, and two distinct residential neighborhoods.

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Natural Features

Map 3 on page 28 provides the location of key natural features, including waterbodies, creeks and streams, floodplains, wetlands and steep slopes. The location of these features helps to understand existing patterns of development.

The study area's natural features are paramount to the plan's vision and Town's plan for this part of the town. Future development and preservation activities within the study area will impact the condition and restoration of these features. The Town must make decisions that will protect vital natural environments.

Waterways

The Niagara River is largest and most critical of the area's natural features. The Niagara River is a 37-mile strait connecting Lake Erie to Lake Ontario. The river varies widely in depth, from an average of 20 feet in the branches around Grand Island to soundings of 190 feet in the upper gorge. The study area falls within the Niagara River watershed, which includes 1,225 square miles with 7 major tributaries, including Tonawanda Creek and Two Mile Creek.

According to information provided through the Buffalo Niagara Riverkeeper, the Upper Niagara was historically lined by marshes that provided feeding, breeding, and resting areas for abundant array of resident and migrating animals. Over 80 different species of fish have been documented in the Niagara River since the 1900's (*Buffalo and Niagara Rivers Habitat Assessment, 2008*) and although the number of species today is far less, the River in general continues to be a popular fishing destination.

However, development and industry in the past several hundred years have severely altered the habitat and water quality in the Niagara River. Industrial contamination from chemicals such as PCBs, mirex, chlordane, PAHs, dioxin, and pesticides has resulted in the Niagara River being listed as an Area of Concern by the International Joint Commission, a regulatory agency of U.S.-Canada shared waters. Fish consumption advisories exist for many fish in the upper and lower Niagara River. The river

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is also affected by sewer overflows and stormwater runoff. Sewage and stormwater raise bacteria levels in the river and elevate levels of phosphates and nitrates, nutrients which can cause algae blooms and low dissolved oxygen. In addition, the river can be impacted by pollution from its tributaries.

Two Mile Creek cuts across a narrow portion of the study area and its tributary, Rattlesnake Creek, traverses the Isle View site, which is the largest area of vacant land in Tonawanda's waterfront area. As long as development patterns and materials are designed to protect these natural features, creeks and streams can be readily incorporated into site designs and often are viewed as an asset.

Floodplains

The study area features a significant amount of 100-year floodplains (approximately 195 acres upland), which are low-lying lands next to rivers and streams. Floodplain systems, when left in their natural state, store and dissipate floods without adverse impacts on humans, buildings, roads and other infrastructure. Natural floodplains provide open space, habitat for wildlife, fertile land for agriculture, and opportunities for fishing, hiking and biking. However, buildings, roads, and parking lots are being built where natural systems used to be located, which decreases the land's natural ability to store and absorb water.

While the presence of floodplains does not preclude development, it is critical that new buildings, structures or other alterations to the land within these areas adhere to the Town's floodplain regulations as well as state and federal requirements.

Wetlands

Wetlands (e.g. swamps, marshes, bogs, and similar areas) are areas saturated by surface or ground water, either seasonally or year round, that support distinctive vegetation adapted for life in saturated soil conditions. Wetlands serve as natural habitat for many species of plants and



Examples of wetland restoration in industrialized areas can be found across the northeast. This tidal marsh in New Jersey has been incorporated into the 270-acre Lincoln Park in Jersey City and includes walking trails and recreational space. Half of this blighted section of Jersey City was returned back to a fully functional tidal marsh; the other half is being developed into a nine-hole public golf course.

animals and absorb the forces of flood and tidal erosion to prevent loss of upland soil. State and federal designated wetlands are located throughout the study area, with a high concentration of them located north of James Avenue. Development near wetlands requires careful design techniques to reduce or eliminate any negative impacts associated with their disruption.

Wetlands' importance in local and regional ecosystems and their key role in natural stormwater management make them a natural asset worth designing around. Wetlands can easily be incorporated into various site designs or become the focal point of parks and open spaces.

Street Network

Map 4 on page 32 highlights the various transportation networks found throughout the study area. In addition to local roadways, several State and Interstate routes traverse this section of Tonawanda, providing efficient access to industries throughout the region. Major truck routes are generally found along these major roadways, although River Road is designated as a truck route as well.

These roads provide a regional flow of heavier traffic volume, connecting arterials and other high access roadways. There are very few local roads that provide lower volume/speed access, especially east to west. As identified in the Brownfield Opportunity Area plan, this lack of access has prevented access into the larger properties and discouraged property development and/or subdivision.

In addition to roadways, railines provide another level of potential transportation along the waterfront. The presence of various industries in the area led to the construction on multiple railroad sidings/spurs. Although the map shows numerous lines and sidings, many of them remain unused or seldom used and, in some cases, only old railbeds remain, available for re-use or adaptation for other means.

Environmental Constraints

Tonawanda's waterfront area's industrial heritage has created environmental constraints that will require

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Landfills & the waterfront

The presence of landfills along the waterfront are obvious when viewing the study area on the ground - the elongated pyramidal-shaped grassy surface that rises up at a steady slope and surrounded by fencing. The BOA study, outlined on page 35, identified approximately 380 acres or 22 percent of the land area north of James Avenue as brownfields (includes landfills) (see page 34-35). When taking into account the full 3,280 acres that constitutes the study area and the additional landfills located in the southern half of the waterfront, the percentage is closer to 10-15 percent, but the physical impact of landfills on redevelopment of are clear. Transforming the waterfront from its current state to the one desired by the community will require creative reuse and redevelopment of the landfills to provide a positive contribution from an economic and, more importantly, a visual aspect. The action plan (Chapter 7) provides additional details and direction for the Town to incorporate these features and transform them into resources.

creative, responsive solutions in the future. The Town has been proactive in working with public and private entities to cleanup various sites throughout the area and will continue to do so. With three landfills, a coke refinery, and several large manufacturing facilities, concerns about air quality and the potential impacts of brownfields will be two critical concerns the Town will need to address with state and federal agencies, including the NYSDEC, USEPA, USACOE, and the New York State Department of Health.

Landfills

With heavy industry comes material disposal and common practice was to locate landfills within close proximity. The waterfront area contains several landfills, some of which have been closed and officially capped off. The contents within these landfills range from post-consumer materials at the former Town landfill site to industrial by-products and the presence of radioactive or other hazardous materials from outside the area.

The Town landfill, located off of East Park Drive has an especially unique history with its future still being determined today. Although used for regulated waste disposal (household, sewer sludge, C&D, etc.), it was later identified as a site in the vicinity of and potentially impacted by the Linde Site, which processed radioactive materials during World War II and contains contaminated soils and groundwater. Although the Linde Site has since been remediated and reused and the US Army Corps of Engineers had effectively signed off on the landfill site (2008), the Town expressed concern with that decision. Since that time, additional monitoring and sampling has been undertaken which identified some underground migration and the presence of hazardous materials. Final grading is underway and a 2012 assessment of the site recommends a feasibility study to evaluate and determine remediation for eventual reuse of the site by the Town.

Just like with other landfills in the waterfront area, the Town would like to reuse these areas for other beneficial uses, including passive recreation and solar arrays, which are discussed elsewhere in this study. Coordination with Federal and State agencies will be crucial to maintain a safe environment while providing a coexisting resource for the community.

Air Quality

Tonawanda's air quality is a well documented issue that will need vigilant attention for the foreseeable future. In 2009, the NYS Department of Environmental Conservation (NYS DEC) released the Tonawanda Community Air Quality Study, which measured ambient concentrations of hazardous air pollutants modeled dispersion patterns. The air quality study showed that the concentrations of benzene and formaldehyde were much higher in the Tonawanda area than in other areas with industrial and urban monitoring data in New York State, excluding New York City. The air quality study results also indicated that the Tonawanda Coke Corp. (TCC) facility was the most important factor in the high air concentrations of benzene. Other benzene emission sources include automobile and truck traffic, the Huntley power plant, and the NOCO and Sunoco petroleum product terminals.

Since then, the Town has proactively participated in several initiatives and programs to improve air quality. While air quality conditions have improved significantly over the last five years, with a 50% reduction benzene levels in the area, it is still the highest recorded level in the State according to NYS DEC analysis and tracking.

BOA Pre-Nomination Study and recent Phase 1 Analysis

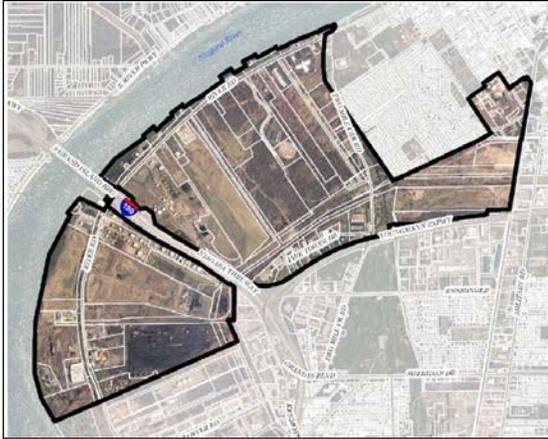
Recently, the Town of Tonawanda, in cooperation with the Erie County Department of Planning, completed a pre-nomination study for the Tonawanda Brownfield Opportunity Area (see map at right). As part of the study, a preliminary analysis of the area included an examination of physical features and resources, a review of environmental records, and economic conditions that could impact future development.

Within the study area, the vast majority of the land uses fall under the vacant category, followed by industrial uses - the vacant uses include the landfills, Cherry Farm along the Niagara River and several former manufacturing sites. Taking a more proactive approach, the Town has

Air Quality Update

Continual monitoring and analysis of the air quality in Tonawanda by the NYSDEC in the last four years has shown a reduction of benzene levels by 86% at Grand Island Boulevard and 69% at Brookside Terrace according to a 2013 update by the NYS DEC. Operational modifications to the Tonawanda Coke Corp. by order of the DEC and USEPA have led, in part, to these reductions. In addition, concentrations of other air contaminants have also declined since the 2007 monitoring study. These improvements are a positive sign, but there is still much work that needs to be done to improve air quality and public health. A NYS Dept. of Health (DOH) health outcomes review was developed for the Town in 2010-2012 based on the results of the NYS DEC air quality study. Although there was no casual relationship identified between an increase in various cancers and local air quality, the review recommended a biomonitoring project to provide further analysis of residential exposure, especially around Grand Island Blvd.

- *NYS DEC (Tonawanda Community Air Quality Study - Update, January 2013)*
- *NYS DOH (Tonawanda Study Area Health Outcomes Review: Birth Outcomes and Cancer, October 2013)*



Brownfield Opportunity Area boundary.

implemented zoning districts within the brownfield opportunity area (BOA) to encourage more appropriate development and take advantage of the expansive views along the Niagara River. Consistent with the Town’s previous 2009 Land Use Plan for the Waterfront and the amended 2008 LWRP, land north of I-190 is geared towards commercial development with waterfront related uses adjacent to River Road and the River itself. South of I-190 and east of River Road retains the general industrial classification, reflecting current conditions and encouraging their continuation. Lands south of I-190 and along the River are split between waterfront business and mixed use.

Landfill/Brownfield	Area (acres)
Huntley Power	117
United Refining	17
Ashland Oil & Refining	20
Seaway Industrial Dev.	97
Lake Ontario Steel	37
Town of Tonawanda	60
Private Owner	38
TOTAL	386

The table above highlights the brownfields and landfills as identified in the BOA study and within the northern section of the waterfront land use study area. Although not specifically identified as part of this plan, there are additional sites located south of James Avenue (the southern boundary of the BOA).

Analysis of environmental records in the area indicate 29 properties are classified as brownfields, underutilized sites or vacant/undeveloped sites. Brownfields are considered sites that contain documented contamination on the property while underutilized and vacant sites have either had limited development or no development in the past, respectively. Within the BOA, the brownfield sites generally consist of either waste disposal sites (buried or temporary storage) or former energy production or storage sites.

Inventory and Analysis of Existing Land Uses and Development

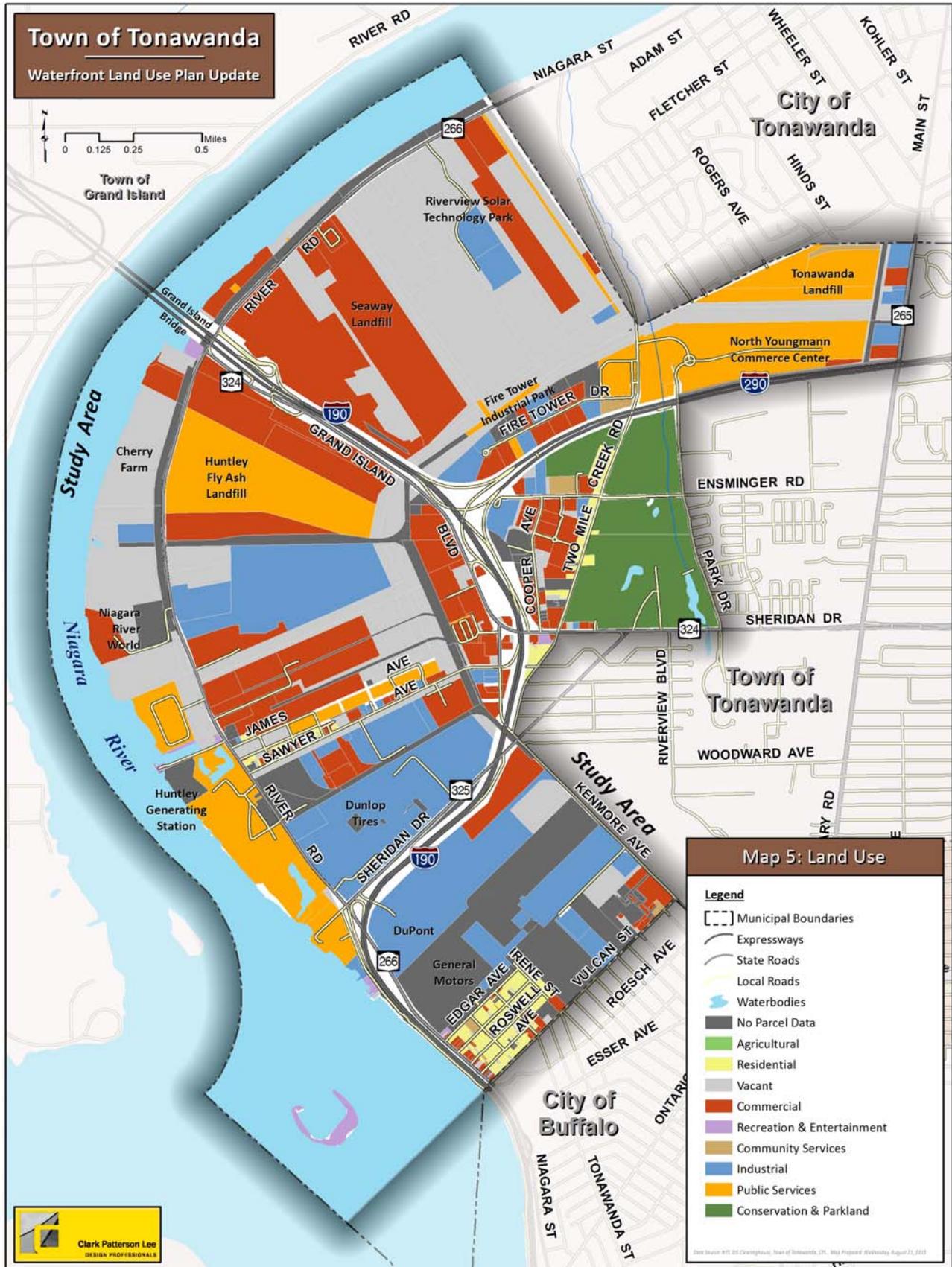
Land Use

As the map on page 36 illustrates, the existing mix of land uses in the study area is varied. There are nine land use categories represented in the boundary, based on real property land use classification codes, shown in the table on page 37.

The study area has a large concentration of industrial properties, many of which are located on large parcels. The industrial uses concentrated in southern portion of the boundary, south of Sawyer Avenue, are active industries that have recently made significant investments in their facilities and/or operations. They are expected to continue in their current capacity for the foreseeable future.

There is also a relatively high percentage of land area dedicated to commercial enterprises. The properties

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classified as commercial vary more in parcel size and configuration, ranging from small two to three acre lots to many acres in size. Some of the commercial properties may present opportunities for new future uses and/or adaptations in development that would better suit and highlight the natural features of the area.

The public service land use category generally represents municipally owned properties that are not parks or recreation facilities. However, one exception to this on the map is Aqua Lane Park, which is characterized as public service, likely due to its proximity to the Town’s water treatment plant to the north. Aqua Lane Park is in fact the only waterfront park that the Town owns and maintains and includes a boat launch located on the north side of the treatment plant.

Within the study area, Sheridan Park is the only property officially classified as forested/public parks (code 900) and comprises the largest recreation area. Similar in case to Aqua Lane Park, there are other community/pocket parks located throughout the Town that are classified as public service or another use, including Kaufman playground, Old Town Park, and Isle View Park (Erie County owned). The Town may want to revisit its land use coding to more accurately reflect existing land uses.

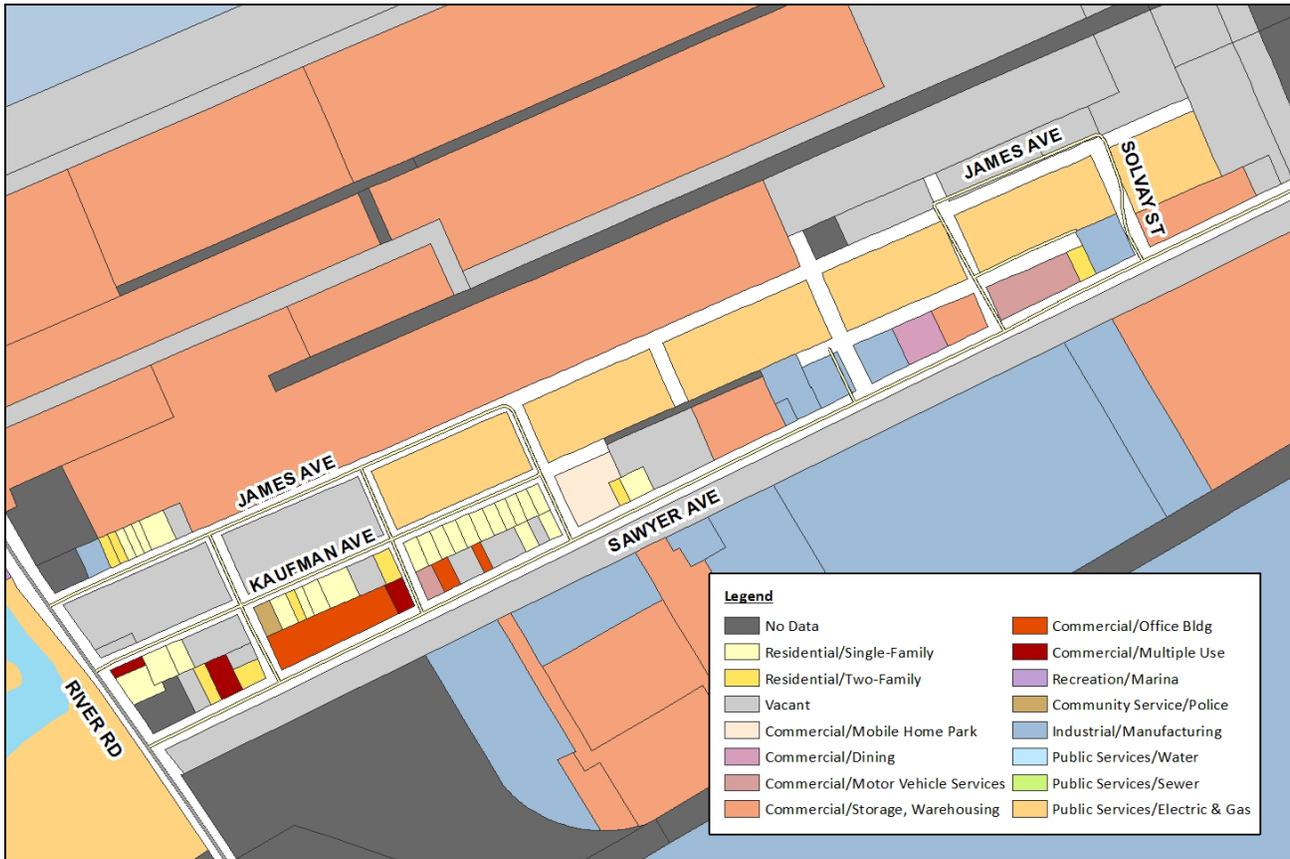
The only area zoned as residential along the waterfront on the existing land use map is the Old Town neighborhood.

Table 4-1: Existing Land Use Classifications

Land Use Code	Description	Parcel Count	Percent	Acreage	Percent
0	No Data ¹	74	9%	16.9	1%
100	Agricultural	0	0%	0.0	0%
200	Residential	334	42%	49.3	2%
300	Vacant	164	21%	807.9	31%
400	Commercial	136	17%	729.6	28%
500	Recreation	11	1%	35.3	1%
600	Community Services	6	1%	8.6	0%
700	Industrial	42	5%	519.1	20%
800	Public Service	21	3%	348.1	13%
900	Forested/Public Parks	4	1%	99.8	4%
TOTAL		792	100%	2614.6	100%

¹ According to the Town Assessment Office, parcels classified as “No Data” have differing property ID’s and therefore do not have appropriate classification information available. Records are being reviewed and updated.

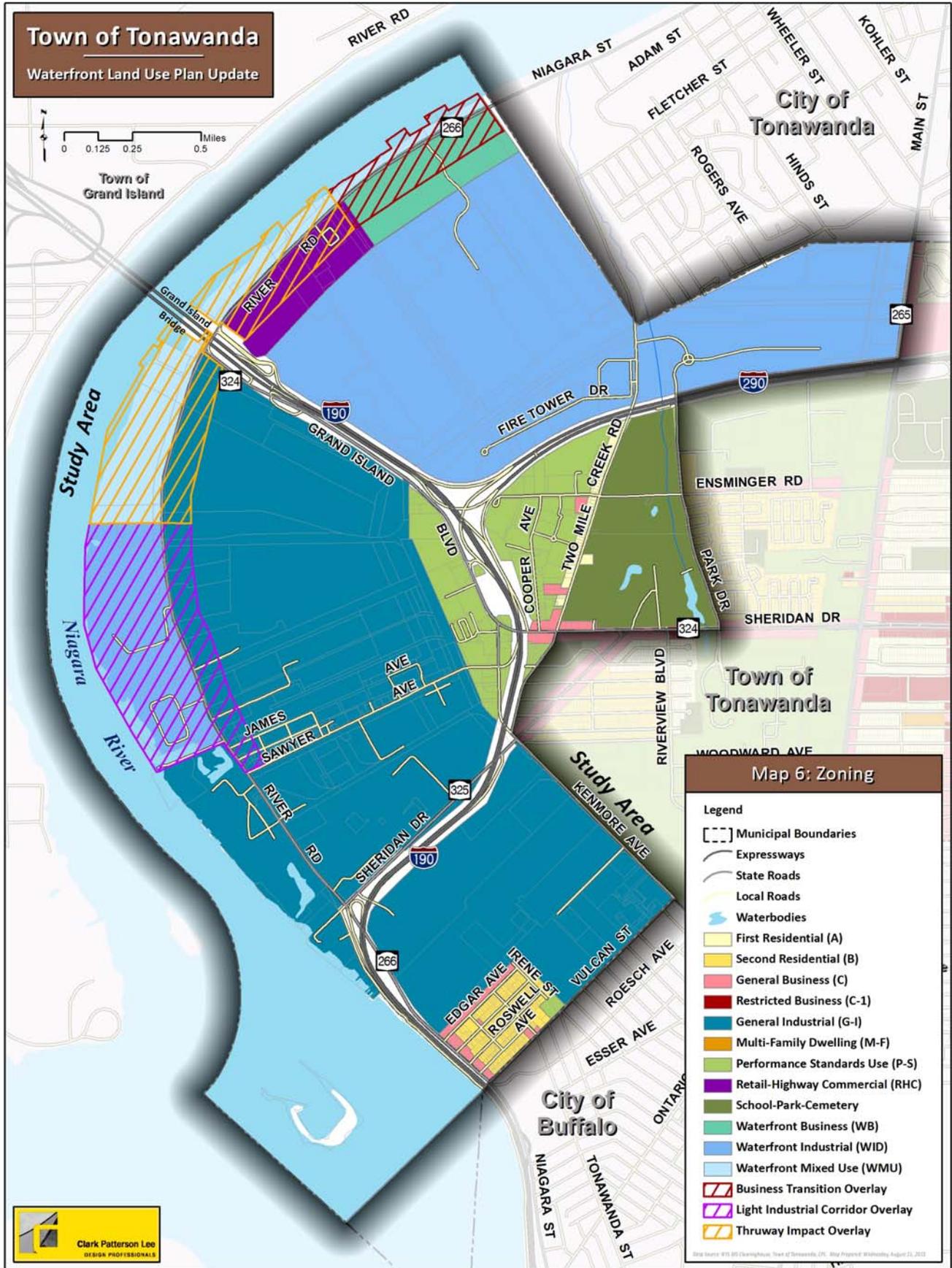
Figure 4-1: Sawyer Avenue Area Detail



That compact residential area borders a City of Buffalo residential area and is expected to remain intact for the foreseeable future. In the future land use section of the plan (Chapter 6), there are recommendations for improving the cohesiveness and physical conditions of this residential area within the boundary.

Detail of land use property classifications on James, Sawyer and Kaufman Avenue. Sporadic residential uses are located in the area, predominantly on the western side, surrounded by commercial, industrial and public service uses.

The existing residential properties on and in the vicinity of James Avenue were most likely in place before zoning was adopted and are not zoned for residential use (see Map 6 on page 39) making these uses preexisting, nonconforming. The area's proximity to large industrial facilities and high power tension lines do not make it conducive to long-term future residential use., making this area suitable for redevelopment for other uses. The Town and interested developers may pursue land assembly to create one or two large parcels or a series of mid-size parcels for redevelopment. Additionally, vacant and/or underutilized properties on Sawyer Avenue can be rehabilitated for future commercial or light industrial occupancy.



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Zoning

The Town of Tonawanda is divided into 12 zoning districts with three individual overlay districts located along the waterfront. Of the 12 total districts in the Town, 10 districts are located in the study area alone, thirteen including the overlays. In general, the districts have been developed in a manner consistent with the Town's Comprehensive Plan and LWRP to transition from a predominantly industrial environment to a mix of uses. However, the study area is still predominantly zoned for General Industrial (G-I), especially west and south of I-190 due to the presence of businesses such as Dunlop, GM, and DuPont among others.

The less intensive Waterfront Industrial (WID) district is located north of I-190 generally permits office and light industry as a transition to adjacent areas. The River Road overlay districts break up the area along the riverfront into three distinct areas, each with their own development standards and general intent for future development. The Old Town neighborhood is shown as an island of residential among the industrial areas in the study area, although the adjacent properties in the City of Buffalo are zoned as residential as well. The interior areas of the study area permit additional commercial and industrial uses as well as recreation (i.e. Sheridan Park).