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**Section II**  
**Inventory and Analysis**  
**of Existing Conditions**

## Watervliet Overview



*View from Hudson Shores Park.*

The City of Watervliet, located 5 miles north of Albany, New York's state capital, grew along the western bank of the Hudson River. With the Erie Canal and the Hudson River, the City was a significant maritime center during the 19<sup>th</sup> century. Since the 1970s, the City has been separated from the River by Interstate-787, a major limited access highway that connects downtown Albany with the City of Cohoes, north of Watervliet.

Watervliet, at 916 acres, or 1.3 square miles, is one of the smallest communities in Albany County. It is approximately 150 miles north of New York City, 200 miles west of Boston, and 200 miles south of Montreal. The Town of Colonie encircles Watervliet on three sides, with the Hudson River forming the City's eastern boundary. Other neighbors include the Village of Menands to the south, the City of Cohoes and the Village and Town of Green Island to the north, and the City of Troy across the river to the east.

Like many other small cities and villages across New York State, Watervliet has experienced a population decline in recent years. While the City's overall population is decreasing, the City is becoming more diverse. In addition, as the number of residents decreases, the City's elderly population is increasingly comprising a larger portion of the City's population.

With the number of families living in Watervliet decreasing, the City's share of renters and non-resident landlords has increased. As a result, the City has been experiencing a growing number of problems associated with poorly maintained rental properties. This recently prompted the City to institute a moratorium on the construction of any dwelling type other than single-family homes.

Once a major trading and manufacturing center, the City's industrial golden age has long since passed, but the City still houses several industrial and manufacturing uses. The Watervliet Arsenal, although still a top employer in the area, no longer employs the thousands it once did. One highly visible manufacturing facility is the Passano Paints plant, located on Broadway. Although outside the coastal boundary, the City also houses an incubator affiliated with Rensselaer Polytechnic Institute that brings some additional information technology jobs into the City. Many local residents are employed at the numerous small shops and commercial businesses located throughout the City.



*The City of Troy is located across the River.*

## History of the Watervliet Waterfront



*View of Broadway at 15th Street looking north.*



*Erie Canal Weighlock building at 26<sup>th</sup> Street operated from 1850 to 1910.*

Located on the western banks of the Hudson River, the City of Watervliet was first settled in 1630, when Patroon Killian Van Rensselaer purchased the area from Native Americans. The area's flat, rich lands and proximity to Albany's Fort Orange attracted early settlers. Derived from the Dutch word for plain- vlakte- "Watervliet" means the "overflowed plains," referring to the annual spring flood.

The presence of navigable waterways greatly influenced the City's development. The Erie Canal connected the city to the center of the new world, and the Hudson River linked the city with the commerce of Europe and the Far East. Largely farmlands until the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, businessmen soon came to realize the advantages of Watervliet's location adjacent to the Hudson River. As the northernmost settlement on the western shore before the impassible Green Island Rapids, Watervliet became a hub of activity, trade, transportation, and commerce. The opening of the Troy and Schenectady turnpike circa 1906 further enhanced the area's importance as a commerce and trade center.

The Township of Watervliet was incorporated in 1788. By the early 1800's, three villages were laid out within Watervliet. The Village of Washington was the first, and the southernmost of the villages. Later it was enlarged and renamed Port Schuyler. Gibbonsville, the second village, was located adjacent to Washington, and extended north to what was then known as Buffalo Street (15<sup>th</sup> Street today). The Village of West Troy was formed soon after, just north of Buffalo Street. In 1836, the three villages were incorporated as a single village, called West Troy.

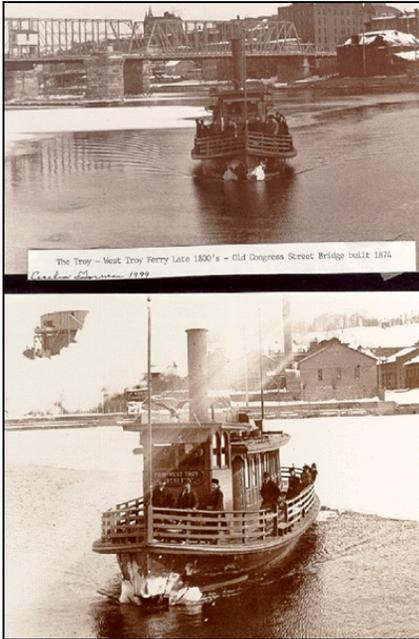
Fearing a British invasion during the War of 1812, the federal government purchased 12 acres of land from a Mr. James Gibbons, to build an arsenal in Watervliet. The Gibbonsville Arsenal began as a distribution center for military goods. By 1817, the name would change to include Watervliet. Eleven years later, the complex would expand by 30 acres with yet another purchase by the U.S. Government, and become known as the Watervliet Arsenal.

Broadway was the City's first post-road and functioned as its waterfront thoroughfare. First called the Whitehall Turnpike, or Northern Turnpike, it was the primary north-south transportation route for the region and likely originated as a Native American

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*West Troy Ferry in late 1800s, shuttling passengers between Troy and West Troy.*



*Arsenal railroad service.*

footpath. Passing through Watervliet, it ran along the shoreline of the Hudson and Stone Hook (as the Dutch knew it, Steen Hoeck).

Stone Hook was an easily recognized reference point for navigators and land surveyors alike as it was an elevated topographic portion of natural blackish rock jutting out from the western banks of the Hudson River and was a common mooring place for ships as early as 1675.

For many years riverfront activity focused on transporting people and goods from one side of the Hudson River to the other. Ferries were used for traveling across the Hudson as early as 1777, when it is said that American troops crossed on the Van der Heyden ferry on their way to the Battle of Saratoga. The ferries operated from a number of points along the riverfront throughout the 19<sup>th</sup> century. The earliest ferry boats were flat-bottomed “bateaux”, driven with long poles. By 1800, ferries were attached to ropes across the river and were moved by the current. By 1820, horses on-board the boats were moving the paddles. These horse-ferries were in operation until the mid-to-late 19<sup>th</sup> century when steam-powered ferries became more common.

In 1824, the Erie Canal opened, linking the Hudson River with the Great Lakes. The canal began north of Albany and paralleled the Hudson River up through Watervliet. The Canal passed through Port Schuyler (along what is now Route 32), into Gibbonsville through the United States Arsenal, along Albany Street, and up Erie Street in West Troy (now Second Avenue). A side cut to the south of the Arsenal was known as the “lower side cut” and one at Union Street (now 23<sup>rd</sup> Street) was known as the “upper side cut” provided, through a series of locks, access between the Erie Canal and the Hudson River. Providing passenger transport between Albany and Buffalo and Rochester, travel by boat on the canal was cheaper than stagecoach so many families and foreign immigrants started their trips westward on the Erie Canal. An 1837 enlargement of the canal allowed for larger boats that could transport more freight. The first weighlock for weighing the boats and cargo was built in 1825. In 1853, a new weighlock was built at the northern boundary of the village of West Troy.

With both the river trade and transport on the Erie Canal, Watervliet quickly became a strong commercial center. The area was ripe for manufacturing, settlement, production, shipping, and

trade. The first Post Office opened in 1814 and by 1823, there were already hat factories, soda factories, flourmills, iron foundries, a cooperage factory, a brewery, hotels and a carriage manufacturer well established in this commercial center. These industries kept the river and canal active. Around 1850, there were said to have been more than forty ships owned and captained by citizens of the village. The lumber industry played a major role in the river activity, with one report claiming that over 130 ships were engaged in the business at one time.

West Troy was at its prime in the decades from 1840 to around 1870. The village attracted many businesses, including notably the Meneely Bell Foundry (a bell manufacturer); J.M. Jones Car Shop (established in 1839, a manufacturer of carriages, wagons, and later, street cars); and James Roy Mills (established in 1843, makers of woolen and worsted goods). By 1850, there were numerous lumbering businesses, foundries, stove and other factories, as well as many home industries.

Around 1851, the Albany Northern Railroad was built. Its proposed location was parallel to the river, east of Broadway. However, local citizens realized the value of the riverfront and opposed the proposed location. This public outcry delayed construction of the railroad, and forced it to be relocated to the west at the base of the hill. The railroad further contributed to the advantageous location of West Troy, and growth continued. The Civil War brought somewhat of a boom to the local economy, with the population jumping from 8,952 in 1860 to 10,639 by 1870. About 1,500 people were employed at the Arsenal at that time in the production of munitions for the U.S.

The first Watervliet bridge was completed in 1874, spanning the river between Congress Street in Troy and Genessee Street (now 19<sup>th</sup> Street) in West Troy. In 1896, the Village of West Troy was dissolved to make way for the incorporation of the City of Watervliet. By 1925, rail and auto transportation had become a faster and more efficient way to carry people and goods. Increasingly, the City's industrial products (cannons, steel, and abrasives) were being transported by rail and highway. The Erie Canal was abandoned and filled. In the 1970s, I-787 was constructed and the City of Watervliet lost its riverfront orientation.

# Watervliet Waterfront Demographic Profile

As stated previously, the City of Watervliet has experienced a population decline in recent years. While the waterfront population has also declined, it has been at a slightly slower rate. In fact, it was estimated that the population in the waterfront area increased slightly between 2000 and 2003. Please see Table 1.

**Table 1: Historic and Projected Population Trends**

Year	LWRP Area		Watervliet		Albany County	
	Number	Growth	Number	Growth	Number	Growth
1990	2,284	N/A	11,046	N/A	292,588	N/A
2000	2,103	-7.9%	10,207	-7.6%	294,565	0.7%
2003	2,113	0.5%	10,156	-0.5%	294,539	0.0%
2008	2,107	-0.3%	10,099	-0.6%	293,532	-0.3%
1990-08	-177	-7.7%	-947	-8.6%	944	0.3%

Source: U.S. Census of Population and Housing and ESRI Business Information Solutions.

The City, as well as its waterfront, is becoming more diverse, with non-white residents comprising 3.7% of the area population in 1990 and 7.3% in 2000. The area's Hispanic population also increased during the 1990s, from 0.9% to 4.1% (21 residents to 87 residents). The waterfront's Diversity Index nearly doubled, from 7.3 in 1990 to 14.1 in 2000, while the City's more than doubled from 7.4 in 1990 to 15.2 in 2000. Please see Table 2 for additional details.

**Table 2: LWRP Area Population by Race and Ethnicity**

Total Population	1990		2000		1990-2000
	Total	%	Total	%	% Change
White	2,199	96.3%	1,948	92.7%	-11.4%
Black/ African American	23	1.0%	62	2.9%	169.6%
American Indian/ Alaska Native	7	0.3%	2	0.1%	-71.4%
Asian	7	0.3%	25	1.2%	257.1%
Pacific Islander	0	0.0%	5	0.2%	N/A
Some Other Race	12	0.5%	26	1.2%	116.7%
Two or More Races	35	1.5%	34	1.6%	-2.9%
Hispanic or Latino*	21	0.9%	87	4.1%	314.3%
<b>Total Population</b>	<b>2,283</b>	<b>100.0%</b>	<b>2,102</b>	<b>100.0%</b>	<b>-7.9%</b>
Diversity Index- LWRP Area	7.3		14.1		93.2%
Diversity Index- Watervliet	7.4		15.2		105.4%

\*Excluded from total. Source: U.S. Census of Population and Housing, 1990 and 2000. Source for Diversity Index: ESRI Business Information Solutions.

National trends call for an aging population as the baby-boomers approach retirement age, and, with medical and health advances, more people are living longer. **Table 3** compares the age characteristics of the waterfront to the City and the County.

In absolute terms, while it is evident that the area's population overall is decreasing, there were increases in those aged 35 - 54 and those aged 85 and older. In comparing the waterfront to the City as a whole and to Albany County, several aspects that distinguish the City's waterfront area become evident.

First, the waterfront area has a larger share of children under the age of five. This is likely due to the location of the Watervliet Housing Authority developments within the waterfront area.

Second, approximately 26% of the population is aged 35 to 64 in both the City and in its waterfront area as compared to about 30% in Albany County as a whole. This is endemic of the national trend of families leaving cities in favor of suburban communities during the child-rearing years.

**Table 3: Comparison of Population by Age**

Age	LWRP Area		Watervliet		Albany County	
	Total	%	Total	%	Total	%
Under 5	147	7.0%	670	6.6%	16,649	5.7%
5-19	409	19.5%	2,007	19.7%	60,603	20.6%
20-24	134	6.4%	717	7.0%	22,609	7.7%
25-34	346	16.5%	1,688	16.5%	39,421	13.4%
35-54	556	26.4%	2,678	26.3%	87,714	29.8%
55-64	159	7.6%	811	7.9%	24,975	8.5%
65-84	305	14.5%	1,439	14.1%	36,609	12.4%
85 and Over	45	2.1%	197	1.9%	5,985	2.0%
<b>Total</b>	<b>2,101</b>	<b>100.0%</b>	<b>10,207</b>	<b>100.0%</b>	<b>294,565</b>	<b>100.0%</b>
<b>Median Age</b>	<b>33.7</b>		<b>33.4</b>		<b>33.9</b>	

Source: U.S. Census of Population and Housing, 1990 and 2000.

Finally, the City and the waterfront area both house a larger share of elderly residents than does the County. Affordability, convenience, proximity to services, and access to public transit are several aspects of urban life that draws older residents to cities. The waterfront houses the Hudson Shores Plaza, a privately developed senior residential development with 122 units for residents aged 55 and over.

As compared to 1990 data, more residents are attaining higher levels of education in both the waterfront and the City. The multitude of colleges and universities in Albany County ensures the presence of a highly educated area workforce. In 2000, a third of the County's population had a bachelor degree or higher. Although educational attainment in Watervliet lags behind the County, it has been improving. In 1990, only 10.6% of the City's population had a bachelor degree or higher; this figure grew to 15.1% in 2000. In 1990, just under ten percent, 9.6%, of the waterfront population had a bachelor's degree or higher. In 2000, this figure had risen to 14.4%. Please see Table 4.

**Table 4: Educational Attainment in LWRP Area, 1990 and 2000**

Age	1990		2000		% Change (1990-2000)
	Total	%	Total	%	
Less than 9th grade	199	13.8%	56	3.9%	-71.9%
9th to 12th grade, no diploma	238	16.5%	213	15.0%	-10.5%
High school graduate	559	38.7%	587	41.3%	5.0%
Some college, no degree	201	13.9%	256	18.0%	27.4%
Associate degree	108	7.5%	103	7.3%	-4.6%
Bachelor's degree	96	6.6%	138	9.7%	43.8%
Graduate or professional degree	44	3.0%	67	4.7%	52.3%
<b>Total</b>	<b>1,445</b>	<b>100.0%</b>	<b>1,420</b>	<b>100.0%</b>	<b>-1.7%</b>

Source: U.S. Census of Population and Housing, 1990 and 2000.

**Table 5** shows a comparison of household income in the waterfront, in the City, and in the County. The economic characteristics of households in the waterfront area are very similar to the City's. More than half the households in the waterfront area (54.9%) earned less than \$35,000 in 1999; this compares to 53.2% for Watervliet and 40.7% for Albany County. Conversely, only 8.4% of households in the waterfront area earned more than \$75,000 in 1999, as compared to 9.0% in Watervliet and 23.5% in the County.

While still significant, the gap in household income, when comparing the waterfront area to both the City and the County, is lessening. In 1990, households in Watervliet made approximately 8.5% more than households in the waterfront area, while Albany County households made 39.9% more. In 2000, these figures had decreased to 2.6% and 36.0%, respectively. The difference in family income, while diminishing when compared to the City (from 7.1% in 1990 to 3.4% in 2000), is increasing when compared to the County. Albany County families earned 31.0% more than

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families in the waterfront area in 1990 and 50.2% more in 2000. The percentage of households living below poverty in the waterfront area decreased from 14.8% to 13.6% during the 1990s. However, the 2000 estimate of 13.6% was still higher than Watervliet (12.3%) and Albany County (10.7%).

**Table 5: Household Income, 2000**

INCOME IN 1999	LWRP Area	% of Total	Watervliet	% of Total	Albany County	% of Total
Less than \$15,000	242	23.8%	982	21.0%	18,870	15.6%
\$15,000 to \$24,999	173	17.0%	760	16.2%	14,632	12.1%
\$25,000 to \$34,999	144	14.1%	748	16.0%	15,632	13.0%
\$35,000 to \$49,999	205	20.1%	899	19.2%	19,033	15.8%
\$50,000 to \$74,999	168	16.5%	871	18.6%	24,146	20.0%
\$75,000 to \$99,999	41	4.0%	220	4.7%	13,105	10.9%
\$100,000 to \$149,999	41	4.0%	146	3.1%	10,054	8.3%
\$150,000 or more	4	0.4%	58	1.2%	5,173	4.3%
<b>Households</b>	<b>1,018</b>	<b>100.0%</b>	<b>4,684</b>	<b>100.0%</b>	<b>120,645</b>	<b>100.0%</b>
Median HH -1990	\$23,836		\$25,861		\$33,358	
Median HH -2000	\$31,730		\$32,548		\$43,160	
Median Fam -1990	\$31,806		\$34,065		\$41,670	
Median Fam -2000	\$37,651		\$38,927		\$56,453	

Source: U.S. Census of Population and Housing, 2000.

According to the U.S. Census Bureau, average household size was 2.14 in 1990 and 2.03 in 2000; average family size was 2.91 in 1990 and 2.74 in 2000.

Resident employment industrial sectors are illustrated in Table 6. Most area residents are employed in the education, health, and social services and public administration industries.

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**Table 6: LWRP Area Residents Employment by Industry-2000**

CLASSIFICATION	LWRP Area		Watervliet		% Area/ City
	#	%	#	%	
Agri./Forestry/Fish/Hunting/Mining	3	0.3%	3	0.1%	100.0%
Construction	46	4.4%	230	4.5%	20.0%
Manufacturing	84	8.1%	437	8.6%	19.2%
Wholesale trade	30	2.9%	194	3.8%	15.5%
Retail trade	139	13.4%	765	15.1%	18.2%
Transportation/Warehousing/Utilities	48	4.6%	195	3.8%	24.6%
Information	30	2.9%	132	2.6%	22.7%
FIRE, rental and leasing	137	13.2%	522	10.3%	26.2%
Profesnl/Scient/Mgmt/ Admin/Waste	60	5.8%	329	6.5%	18.2%
Education/Health/Social Services	172	16.6%	971	19.1%	17.7%
Arts/Entertainment/Recreation/ Accom	78	7.5%	367	7.2%	21.3%
Other Services	50	4.8%	269	5.3%	18.6%
Public Administration	160	15.4%	661	13.0%	24.2%
Total	1,037	100.0%	5,075	100.0%	20.4%

Source: U.S. Census of Population and Housing, 2000.

Resident occupation is shown in **Table 7**. Interestingly, while the waterfront area's unemployment rate closely resembles the County (4.1% as compared to 4.4%), the City's rate is only 2.9%. In 1999, a third of waterfront residents (36.2%) held positions as sales representatives, office employees or administrative staff. An additional 23.4% had management or professional positions.

**Table 7: Resident Occupation, 2000**

Occupation Type	LWRP Area		Watervliet		Albany County	
	#	%	#	%	#	%
Management/Professional	243	23.4%	1,338	26.4%	61,112	42.3%
Service industry	185	17.8%	908	17.9%	20,106	13.9%
Sales/Office and Admin Support	376	36.2%	1,768	34.8%	41,701	28.9%
Farming/Fishing/Forestry	0	0.0%	0	0.0%	168	0.1%
Construction/Extraction/Maintenance	92	8.9%	402	7.9%	8,945	6.2%
Production/Transportation/Material	143	13.8%	659	13.0%	12,448	8.6%
Total	1,039	100.0%	5,075	100.0%	144,480	100.0%

Source: U.S. Census of Population and Housing, 2000.

A journey to work overview is presented in Table 8. As an older, traditional urban community with a tight network of streets and sidewalks, a greater share of area residents walk to work (7.5% compared to 4.3% in the City and 4.7% in the County). As there are several Capital District Transit Authority (CDTA) bus routes in the area, it is unsurprising that a greater proportion of area residents use public transportation to get to work (12.4% compared to 8.5% in the City and 5.6% in the County). In addition, a larger share also carpool to work (13.1% in the waterfront as compared to 10.8% in the City and 9.8% in the County).

**Table 8: Journey To Work Comparison, 2000**

Workers 16+ by Means of Transportation to Work	LWRP Area		Watervliet		Albany County	
	#	%	Total	%	Total	%
Drove Alone	644	64.3%	3,588	72.3%	108,966	76.8%
Carpooled	131	13.1%	537	10.8%	13,902	9.8%
Public Transportation	124	12.4%	420	8.5%	7,956	5.6%
Walked	75	7.5%	215	4.3%	6,672	4.7%
Other Means	17	1.7%	46	0.9%	668	0.5%
Worked at Home	10	1.0%	155	3.1%	3,678	2.6%
<b>Total</b>	<b>1,001</b>	<b>100.0%</b>	<b>4,961</b>	<b>100.0%</b>	<b>141,842</b>	<b>100.0%</b>

Source: U.S. Census of Population and Housing, 2000.

An overview of home values is presented in Table 9. As much of the waterfront area's (and the City's) housing stock is older, and thus smaller than newer housing, home values in the City are lower than homes elsewhere in the County. The disparity in home value has been declining. While median house value in Watervliet was 12.8% higher than the waterfront in 1990 (\$79,748 compared to \$70,714), it was only 7.3% higher in 2000 (\$84,344 compared to \$78,636). In 1990, the median house value in Albany County was 56.9% higher than the waterfront (\$110,933 compared to \$70,714); in 2000, this difference had decreased to 47.9% (\$116,273 compared to \$78,636). This may indicate a correction prompted by an initial under valuation of the City's housing stock.

**Table 9: Value of Specified Owner-Occupied Units, 2000**

House Value	LWRP Area		Watervliet		Albany County	
	#	%	#	%	#	%
Less than \$50,000	21	10.5%	83	8.3%	995	1.7%
\$50,000 - \$99,999	152	76.0%	758	75.8%	18,886	32.9%
\$100,000 to \$149,999	20	10.0%	140	14.0%	22,644	39.5%
\$150,000 to \$199,999	5	2.5%	14	1.4%	8,716	15.2%
\$200,000 to \$299,999	2	1.0%	5	0.5%	4,570	8.0%
\$300,000 or more	0	0.0%	0	0.0%	1,518	2.6%
<b>Total</b>	<b>200</b>	<b>100.0%</b>	<b>1,000</b>	<b>100.0%</b>	<b>57,329</b>	<b>100.0%</b>
Median Value-1990	\$70,714	-	\$79,748	-	\$110,933	-
Median Value-2000	\$78,636		\$84,344		\$116,273	

Source: U.S. Census of Population and Housing, 1990 and 2000.

**Table 10** provides an overview of housing inventory in Watervliet waterfront area. The trend in Watervliet, both within and outside the waterfront area, has been for the conversion of former single family and two family homes into multiple unit rental dwellings. Along with an increase in smaller rental units, this trend has resulted in a diminishing supply of owner-occupied units, with “absentee landlords” owning a greater share of the City’s housing stock. In 1990, 39.7% of Watervliet’s housing was owner-occupied; this figure declined to 37.6% in 2000. In 1990, 37.0% of waterfront housing was owner-occupied; this declined to 33.4% in 2000. Poor maintenance and lack of oversight has led to growing concerns about safety, as an increasing number of structures are dilapidated.

**Table 10: Housing Inventory, 1990 and 2000**

Characteristics	1990		2000		% Change (1990-2000)
	#	%	#	%	
<b>Total housing units</b>	<b>1,121</b>	<b>100.0%</b>	<b>1,148</b>	<b>100.0%</b>	<b>2.4%</b>
Occupied housing units	1,067	95.2%	1,038	90.4%	-2.7%
Vacant housing units	54	4.8%	110	9.6%	103.7%
<b>Occupied housing units</b>	<b>1,067</b>	<b>100.0%</b>	<b>1,038</b>	<b>100.0%</b>	<b>-2.7%</b>
Owner-occupied units	415	38.9%	383	36.9%	-7.7%
Renter-occupied units	652	61.1%	655	63.1%	0.5%
<b>Vacant housing units</b>	<b>54</b>	<b>100.0%</b>	<b>110</b>	<b>100.0%</b>	<b>103.7%</b>
For rent	22	40.7%	63	57.3%	186.4%
For sale only	2	3.7%	7	6.4%	250.0%
Rented or sold, not occupied	9	-	10	9.1%	11.1%
Seasonal, recreation, occasion	0	0.0%	1	0.9%	-
Other vacant	21	38.9%	29	26.4%	38.1%

Source: U.S. Census of Population and Housing, 1990 and 2000.

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There are also a growing number of vacant units in both the City and the waterfront. In 1990, there were 260 vacant housing units in the City - 5.1% of its housing. In 2000, this had increased to 451 units, or 8.8%. In 1990, the waterfront area had 54 vacant units, 4.8% of the waterfront area's housing. By 2000, the number of vacant units in the waterfront area had grown to 110 units, or 9.6%. While vacant units grew by 73.5% in the City during the 1990s, it more than doubled in the waterfront, increasing by 103.7%.

## Existing Land and Water Uses

### *Watervliet Waterfront*



*Congress Street Bridge.*



*Watervliet's shoreline.*

Since the 1970s construction of I-787 along the western shore of the Hudson River, the City of Watervliet has been effectively cut off from its waterfront. At one time housing a myriad of waterfront commercial and shipping industry uses, today all that remains accessible of the City's shoreline is a 9-acre shoreline park, Hudson Shores Park, and a much smaller, NYS Department of Transportation-owned trailhead.

Both park locations provide for recreational fishing and passive recreation along the shore. Hudson Shores Park provides opportunities for picnicking. The Park houses a pavilion and restrooms. During summer 2004, farmers markets were held at the park. The Mohawk Hudson Bike Hike Trail has an off-road trail segment that continues both north and south of the trailhead. Within the City, the trail is on-road and runs along Broadway. The only other property owner of Watervliet shoreline is the Watervliet Arsenal, which owns a portion of narrow steep shoreline across from the military base.

As infill was placed to support I-787 and the highway was intentionally constructed to flank the shoreline, a good portion of the land along the shoreline south of Hudson Shores Park is steep, graded terrain. As such, it is unbuildable, unusable, and inaccessible.

There are no industrial or commercial water-dependent uses currently existing along the City's shoreline. The City's shoreline is severely constrained by its narrow lots, its lack of privately owned developable parcels, its lack of accessibility. These constraints, and the nature of much of the shoreline itself, which is characterized by steep grades means the location has not attracted any water dependent commercial uses since the construction of I-787. Additional limitations to development are presented by the proximity of the Federal channel along Watervliet's shoreline. These circumstances are not going to change, so the waterfront's lack of appeal for water-dependent commercial uses is unlikely to change anytime in the future. See [Existing Land and Water Uses Map](#).

Although Hudson Shores Park provides waterfront access, pedestrians are forced to cross several I-787 ramps to access the park. The park's adjacency to I-787 also results in several areas of the park being plagued by the loud rumble of automobile traffic.

### *Waterfront Area West of I-787*

The Capital Region houses marinas in Albany, Cohoes, Coeymans, Rensselaer, Ravena, and Troy. While the City of Watervliet did propose the development of a marina at one point, it was eventually nixed by NYS Department of Conservation, as the proposed design required too much infill in the Hudson River. Subsequent discussion about establishing a boat launch at Hudson Shores Park was dropped, as the use would, by necessity, be done to the exclusion of all other uses at the park. Notwithstanding the City's desire to develop a variety of uses at the park to ensure its broad appeal, as there are so many other marinas within close proximity (in addition to those in the Capital Region, nearby Greene County houses five in Catskill and three in Saugerties), any facility development at Hudson Shores Park, given the park's limited land area and lack of nearby amenities, would be hard-pressed to compete in a well-established market.

Thus, the development of non-water dependent, water-enhanced uses along Watervliet's shoreline would not at present, and in the foreseeable future, displace any water-dependent uses from being developed along the shore.

As a result of these factors, City residents' ability to enjoy their location along the Hudson River has been seriously diminished. For this reason, the City is looking for possible opportunities to expand the array of activities available to users of Hudson Shores Park.

To the west of I-787 the City of Watervliet is intensively developed, housing a mix of residential, commercial, industrial, and office uses. As Route 32 has developed into a commercial corridor, many homes on Second and Third Avenues have been renovated to accommodate both ground floor retail uses and multi-family housing. Due to the proximity of I-787, and the resultant automobile noise, a number of homes along Broadway, which runs parallel to I-787, have been converted to commercial uses. While some businesses are located on side streets, commercial uses are primarily concentrated along the major routes that provide access into the City, including Route 32 and Broadway.

The City's northern end accommodates a variety of uses. The City's original village fabric was eliminated in this area, as the blocks between the northern City line and 16<sup>th</sup> Street, and Broadway and Second Avenue, were cleared during the nation's urban renewal

## Inventory and Analysis of Existing Conditions

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*British American Plaza blank face along Broadway.*



*Homes along Broadway.*

period. As a result, much of this area consists of larger-scale development. The Watervliet Housing Authority (WHA) has two public housing communities just north of 21<sup>st</sup> Street, including the 90-unit Michael J. Day Apartments and the 60-unit senior housing Daniel P. Quinn Apartments, and a third located on Second Avenue at 24<sup>th</sup> Street (58-unit Edward E. Joslin family development).

South of the WHA is British American Plaza, a retail shopping plaza that houses a Price Chopper supermarket and other retail and service establishments. South of the retail plaza is the City's senior citizen center, which shares a building with the Watervliet Public Library. North of the senior citizen center is Hudson Shore Plaza Apartments, a 9-story senior housing development that fronts onto Broadway between 16<sup>th</sup> and 17<sup>th</sup> Streets. Second Avenue houses several of the City's parks, including the Veterans' Memorial, a playground, and the City pool.

With some exceptions, most notably the Eckerds Pharmacy, the west side of Second Avenue (Route 32) retains the City's original development. The City line to 16<sup>th</sup> Street consists of a mix of commercial and residential uses. Ground floor retail uses include local restaurants and take-out businesses, banks, and chain establishments. Second Avenue between 16<sup>th</sup> and 17<sup>th</sup> Streets Broadway across from the WHA development houses many automotive related shops, in addition to other businesses and multi-family residential.

Immediately north of the Arsenal is a small area that retains much of Watervliet's original urban development. Many of the City's community and civic buildings are located in this area, including City Hall. A former church building recently acquired by the City is to be retrofitted to accommodate the City's court functions. Several restaurants are located in the area. The Watervliet Fire Department is located on Second Avenue at 13<sup>th</sup> Street. The Dome, the City's indoor recreational facility, is located at Second Avenue and 13<sup>th</sup> Street. The Watervliet Civic Center is located on First Avenue at 14<sup>th</sup> Street.

Encompassing the Port Schuyler neighborhood, the area south of the Watervliet Arsenal is primarily residential. Along Broadway, it is mostly multi-family, as former one and two family homes have been subdivided into smaller rental apartments. The WHA's 30-

### *Watervliet Arsenal*



*The Watervliet Arsenal.*

unit Abram Hilton Apartments is located on Broadway at 5<sup>th</sup> Street. Along Third Avenue (Route 32), commercial and residential uses are inter-mixed. Although most of the commercial activity is neighborhood-oriented, there are several light industrial uses located in this area as well. These include a ladder company and a paint factory. Automotive uses, such as body shops and automobile upholsterers, are also located in the area. Fast food establishments, including delis and pizzerias, can be found along Third Avenue and to a lesser extent, Broadway.

Located in the center of the City, the Watervliet Arsenal encompasses approximately 144 acres of land. Once the City's major industry and top employer, the Arsenal has been the U.S. Army's only manufacturer of large caliber cannon for nearly 200 years. Although it is still operated as an army post, the federal government has reduced activities at the Arsenal in recent years. The only military personnel currently at the facility is the Arsenal's chief commander. In addition, about 20 military families live on the grounds in military housing. As the Arsenal site is federally-owned land, the City has not historically collected any property taxes on the land.

During earlier years of the Arsenal's 200-year history, manufacturing processes contaminated the soils with petrochemicals. For the purpose of preventing and mitigating migration of these chemicals to the Hudson River, the Baltimore Corps of Engineers has been injecting potassium permanganate into two bedrock wells to halt and neutralize chlorinated solvents from reaching the Hudson River via natural hydrology and inclined drainage from Watervliet Arsenal land. The Arsenal has one well tested once a year on the other side of 787. This well is part of a final remedy for the main manufacturing area of the Arsenal.

About 500+ federal-civilian employees work at the Arsenal, including researchers at Benet Laboratories' design, research, and development center. Several hundred more employees work in non-Arsenal, yet military-related fields (such as military recruiting).

In recent years, the federal government, through its Defense Base Realignment and Closure Act, has been focusing on streamlining military activities and consolidating base locations. In response to the trend of federal retrenchment, there has been an ongoing shift



*Trail along the Hudson River.*

### *Existing Water Uses*



*Fishing at the Mohawk Hudson Bike trailhead.*

to privatize the Watervliet Arsenal. While there are no foreseeable plans to close the Watervliet Arsenal, it is anticipated that the shift to privatize the facility will continue.

The Arsenal Business and Technology Partnership, known as the Arsenal Partnership, was created in 1999 by local government, business, and educational leaders. A not-for-profit, the organization's mission is to transform the site into a center for technology and business. The organization actively recruits businesses to the site, marketing it via its website and providing economic development assistance to tenants. As the entire Watervliet Arsenal is included in Albany County's Empire Zone, qualifying manufacturing and commercial businesses at the Arsenal are eligible for special tax benefits and economic development incentives.

In 2004, it was estimated that approximately 70 non-federal workers were employed at the Arsenal compound. One business located on-site includes a training facility that, once underway, will add about 120 non-federal employees to the Arsenal. It is anticipated that, with continued cutback of federal military and non-military personnel from the site, the Watervliet Arsenal will progress into a totally privatized industrial and technology park, under the oversight of the Arsenal Partnership.

The waterside uses along the City of Watervliet's waterfront are presently few in number. The City's shoreline is physically and psychologically separated from the City by Interstate 787, which cuts through Watervliet. Otherwise unneeded lands owned by the NYS Department of Transportation as part of their right-of-way for the highway were eventually deeded to the City for the creation of a linear park. The result was Hudson Shores Park, a 9-acre City-owned park that runs along the Hudson River between 16<sup>th</sup> Street and 23<sup>rd</sup> Street. The park entrance is at 23<sup>rd</sup> Street, but park users must cross several heavily trafficked I-787 ramps to access the park entrance. Limited in size, the park provides a river walk and fishing opportunities.

The Mohawk Hudson Bike Hike Trail is a cycling and hiking trail that runs parallel to the Hudson River from Albany to the southern part of Watervliet, terminating at Fourth Street. In addition to cycling on the trail the trailhead area is also used as an access point for fishing in the river.

### *Underwater Land Issues*

The Federal Channel, under the jurisdiction of the US Army Corps of Engineers, runs along the Watervliet shoreline. The distance between the channel and the shoreline varies. At its furthest point from the shoreline, near Reach 13N, the channel is more than 450 feet into the Hudson River. At its closest point to the Watervliet shore, within ACOE designated Reach 14N, the channel is approximately 70 feet from the shoreline. The Federal Channel is approximately 400 feet wide.

The Watervliet Arsenal owns the mostly narrow, steep wooded shoreline on the eastern side of Broadway, across from the military base. The Arsenal has four water outfalls, as well as storm drainage along this property.

The historic understanding that the air, the running waters and the sea are common to all people is the main tenet of the Public Trust Doctrine. This Doctrine, dating from Roman times and based on common law principles, guarantees the public's right to reach and use tidal lands, waters and their living resources. Under the Public Trust Doctrine, the State of New York generally holds title to the foreshore, tidal waters and submerged land under tidal waters below the mean high water line as trustee for the public, and must administer the use of these lands in the public interest.

In New York State, the courts have interpreted the Public Trust Doctrine to mean that the public has the right to use public trust lands and waters for bathing, boating, fishing and other lawful purposes when the tide is in; and when the tide is out, to walk along the foreshore to gain access to the water for these purposes and to lounge and recline on the foreshore. The courts have recognized that recreation is a valid and protected Public Trust purpose. The Public Trust doctrine applies on the Hudson River, which is tidal to the federal dam at Troy. The Public Trust Doctrine is complicated and ever evolving.

Upland property owners whose lands abut public trust resources have certain limited rights of access to publicly owned lands and waters. These rights are limited as to the type of use, which may be placed in the water, and they must be reasonably exercised. By the nature of location in or over the water, the exercise of these rights always interferes to some degree with public uses of the water and lands subject to the Public Trust Doctrine.

In New York State, adjacent upland owners can also apply to purchase, lease or use underwater lands. In the 18th and 19th centuries, the state sold large expanses of public trust lands and waters to adjacent landowners to promote the development of commerce. In many cases these owners placed fill in the Hudson River to create new upland. In more recent years, private use of public trust waters include marinas, commercial fishing operations, and docks and piers for shipping and recreational boating. Many grants were limited, and public interests in the underwater lands remain. While the courts have consistently recognized the Public Trust Doctrine as a sovereign right held for the people, they have also recognized the validity of certain grants of public trust land to riparian owners. The courts have held that where some types of grant have been made by the State without any express reservation of the public rights, the public trust and accompanying public rights were extinguished, although the State may still regulate such lands under its police powers and may authorize local governments to do so as well. The courts have also held that some grants are invalid where the grant is no longer in the public interest, or conditions or purposes of grants are not met.

The importance of the Public Trust lands for public access and as a recreational resource and the use of the Public Trust Doctrine to better protect New York's coastal areas, their living resources and the public's rights to access and enjoy them have recently been re-emphasized. The use of trust lands by the public generates billions of dollars for the State economy. The foreshore and underwater lands of the coast are used for recreation, boating, fishing, swimming, and visual enjoyment. The areas provide habitat and breeding areas for species of commercial and recreational importance. Private actions that interfere with these activities diminish the public's use and enjoyment of these commercially and recreationally productive areas.

In 1992, the legislature passed Chapter 791 codifying, in part, public trust interests in and to publicly owned underwater lands. The legislature found that regulation of projects and structures, proposed to be constructed in or over state-owned lands underwater, was necessary to responsibly manage the state's proprietary interests in trust lands. Additionally, the regulation would severely restrict alienation into private ownership of public trust lands owned by the state. The intent of the act was also to ensure that waterfront owners' reasonable exercise of riparian

rights and access to navigable waters did not adversely affect the public's rights. The legislature stated that use of trust lands is to be consistent with the public interest in reasonable use and responsible management of waterways for the purposes of navigation, commerce, fishing, bathing, recreation, environmental and aesthetic protection, and access to the navigable waters and lands underwater of the state.

Over the years there have been many underwater land grants made by the State to adjacent upland owners along the Hudson River. These grants, which primarily date from the 19th century, are a mixture of commerce grants and beneficial enjoyment grants. Along the shoreline of Watervliet, filling in the Hudson included support for the construction of I-787 during the 1960s and 1970s.

The development of an accurate inventory of public trust lands and those lands that have been leased or granted to private interests within Watervliet is critical. The Village of Mamaroneck, Westchester County carried out such an underwater lands study within the context of their LWRP (Village of Mamaroneck and L.R. Johnston Associates, 1989). This study's three principal objectives:

- to identify those near shore areas (underwater land) where ownership, jurisdiction and right to use the property may be unclear or undocumented in current local codes, programs and plans
- to document and clarify the ownership, jurisdiction and usage rights on these properties
- to evaluate how this information may affect local and State management of water and waterfront areas and, more specifically, how this information can best be utilized by the local municipality to improve public access and recreational opportunities, protect and promote water dependent uses and maintain scenic quality

This study provides a model which could be used in the City of Watervliet to inventory and analyze its underwater land resources.

Before considering any development activity or land purchases in the waterfront area, prospective developers and owners are advised to check on the ownership of underwater and formerly

underwater filled lands. This must be done at the OGS office in Albany. OGS manages State owned lands, including underwater lands that are not managed by another State agency, and maintains a series of "Water Grant Index maps" that identify lands within State ownership as well as grants, easements and leases issued by the State to various public and private areas. According to an April 14, 2003 correspondence from Allan L. Scott of OGS, the portion of the City's shoreline that runs along Hudson Shores Park is within the boundaries of lands previously granted by the State of New York, as part of the George Tibbits Grants of 1835 and 1851. Issued for commerce related uses, both grants continue to be valid.

It is important to fully understand the nature of the ownership of underwater lands as municipal, State and federal agencies should consider the public's rights under the Public Trust Doctrine during their regulatory review of development proposals. In many cases it can provide a rationale for modifying or denying permits when an activity would impair public trust resources or if the use is inconsistent with the Public Trust Doctrine. Where areas have been illegally filled, both state and federal agencies can seek to have the area restored to its original condition or require the provision of compatible public trust opportunities. Existing State grants, easements and leases to upland owners for use of public trust lands do not necessarily extinguish the public's rights to use these resources. Remaining public rights depend on the specific grant, easement or lease and in some cases require judicial interpretations. In addition, the federal government and the State both regulate activities in navigable waters overlying underwater lands including the Hudson River.

# Waterfront Area Zoning

## *Zoning Districts*

The zoning districts located within the Watervliet waterfront area include R-3 Residential, R-4 Residential, Business B-1, Manufacturing M-1, Business B-2, Waterfront Recreation WRD, Waterfront Open Space WOSD, and Waterfront Business WB. See [City of Watervliet Zoning Map](#).

R-3 Residential districts permit the following uses: one-family dwellings, two-family dwellings, fire stations and other public buildings and essential services, churches and places of worship, public libraries or public museums, public schools, parochial schools, institutions of higher learning, public parks, and playgrounds, hospitals, cemeteries, structures for public utilities, bulletin boards or signs in connection with the uses permitted in the district and accessory uses and structures.

There are three sizable areas within the waterfront area that area zoned R-4 Residential. R-4 districts permit all those uses in R-3 Districts plus multi-family dwellings, high-density multi-family dwellings, residential hotels, boardinghouses, lodging houses, rooming houses and tourist houses, nursing homes, convalescent homes, homes for the aged, clubs, lodges, social and recreational center buildings, professional offices, funeral parlors and signs.

The City's Central Business District, its B-2 Business district does not permit single and two-family dwellings. It does permit fire stations and other public buildings, stores, shops or markets, business and professional offices, banks and fiduciary institutions, restaurants, gas stations, signs, hotels, theaters, dance halls, billiard rooms, bowling alleys, skating rinks, commercial schools, newspaper publishers, funeral homes and mortuaries, new and used motor vehicle sales and service, laundries and dry-cleaners, municipal and other governmental buildings. A small B-1 Local Business district exists along Third Avenue, between 6<sup>th</sup> and 7<sup>th</sup> Streets. B-1 districts allow any use permitted in the R-3 District. In addition, person business and professional offices, banks and financial institutions, restaurants, gas stations, and signs.

The Watervliet Arsenal is zoned M-1 manufacturing. There is also a small M-1 district located north of 25<sup>th</sup> Street between Broadway and Second Avenue. This district permits any use in the CBD except that no building can be used for dwellings. Manufacturing uses are not specified, but are permitted upon written approval of

### *Flood Damage Prevention Ordinance*

the Board of Zoning Appeals, if they would not cause injurious or obnoxious noise, vibrations, smoke, gas, fumes, odors, dust or other objectionable conditions.

The Waterfront Business district has specific regulations for waterfront recreation and tourism uses. This district allows the City to work with potential developers to target the desired types of development, such as restaurants, shops, and cafes.

The Waterfront Recreation District applies to City owned lands along the shoreline that comprises Hudson Shores Park. A range of public water-related uses are permitted.

The Waterfront Open Space District encompasses the City's shoreline outside of Hudson Shores Park and is characterized primarily by steeping sloping shore lands.

The City's Flood Damage Prevention Ordinance was adopted in 1987 to minimize public and private losses resulting from flood conditions. The chapter applies to all areas of special flood hazard within the City, as identified in the *Flood Insurance Study for the City of Watervliet, of Albany County, New York* dated 1979.

A "floodway", or "regulated floodway", is identified as the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than the amount permitted. These areas, which correspond to FEMA's 100-year flood zone, are regarded as extremely hazardous due to high velocity floodwaters that may carry debris and land areas that may erode and give way. For identified floodways, the ordinance prohibits all encroachments, including fill, new construction, substantial improvements and other development, unless a technical evaluation demonstrates that such encroachments will not result in any increase in flood levels during a base flood discharge.

The City of Watervliet's Flood Damage Prevention Ordinance identifies specific standards and requirements for construction in flood areas. These standards include construction practices as well as construction materials. For residential development, the ordinance requires that the lowest floor of any home be elevated to or above base flood elevation, with special enclosed areas below

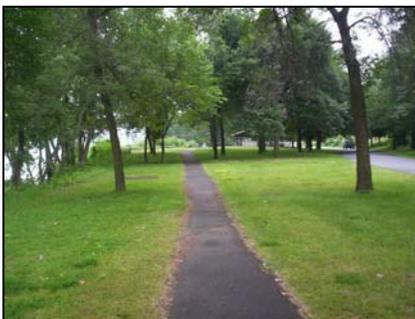
the first floor designed to allow for the entry and exit of floodwaters. The ordinance mandates that the lowest floor of nonresidential structures be elevated to or above the base flood elevation, or be flood proofed so that the structure is watertight below the base flood level. New construction must be anchored and constructed using flood resistant materials and equipment. For areas without base flood elevations, the lowest floor must be elevated at least two (2) feet above the highest adjacent grade next to the proposed structure foundation.

Please see the *Wetlands and Flood Zone Areas* section for a discussion of the areas within the City that are located within flood hazard areas and the [Natural Resources Map](#).

## Recreational Resources

### *Waterfront Resource Areas*

### *Hudson Shores Park*



*Hudson Shores Park Trail that Terminates at 15<sup>th</sup> St.*

Interstate 787 parallels the shoreline, functioning as both a barrier to and separating the Hudson River shoreline from the City's business and residential areas, effectively limiting Watervliet residents' physical and visual access to and enjoyment of the river. Two underpasses provide access, one at the northern end of the City at 23<sup>rd</sup> Street, and one at the southern end at Fourth Street. The northern access point is at the entrance to Hudson Shores Park while the southern access provides entrance to the Mohawk Hudson Bike Hike Trail. Hudson Shores Park, the larger of the two parklands and City-owned, is an important part of the City of Watervliet's waterfront that is not fully utilized as it could be.

This 9-acre park runs between 16<sup>th</sup> Street and 23<sup>rd</sup> Street, with an entrance at 23<sup>rd</sup> Street. Located along the Hudson River, adjacent to I-787, the park provides a river walk and fishing opportunities. Watervliet now owns the park, which was at one time owned by New York State and leased to the City. It was developed in 1975 after the construction of Interstate-787, and includes picnic tables and public rest rooms. A pavilion was later added. The restrooms are opened when the pavilion is rented out. There are approximately 40 on-site parking spots. Although the City's primary access to the Hudson River, the park is difficult to access. Park goers must traverse several I-787 ramps to get to the park entrance-which is in Village of Green Island. As a result, the park is not as widely used as it could be.

The park could benefit substantially through the development of additional activities and attractions, giving it a wider appeal. Other water enhanced uses such as restaurants and cultural activities would serve to spur additional use of the park. During the LWRP public participation process, many residents indicated a desire for other water-based uses, such as boating, at the park.

While there is a strong desire to develop as many uses at Hudson Shores Park as possible, making the area more attractive and appealing, the park is severely limited by its size. At only 9 acres, much of the park is already occupied by circulation roads, parking, paths, and structures (including the pavilion and restroom building). These facilities currently occupy about 1 ½ acres or nearly 17% of the park. In addition, much of the park's shoreline is steeply graded and not developable. To accommodate and facilitate increased usage at the park, an

## Inventory and Analysis of Existing Conditions

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*Hudson Shores Park Parking Area.*



*Fishing Spot at Hudson Shores Park.*

additional parking area will be developed (this will total approximately a third of an acre). With this, about 20% of the park will be developed. The remaining areas will remain as recreational open space.

Many of the residents and members of the business community that attended the public workshops during the LWRP process expressed a need to maximize Hudson Shore Park's potential for recreational and other uses. To this end, participants expressed a need to maintain as much landside area as possible to provide for a diverse range of activities. At present, the park houses a pavilion, picnic area, and restroom facility. During the warm weather months, people walk or bike along the park's trail, picnic at the table areas, or attend the City's farmers market. During the winter months, the park is a popular spot for cross-country skiing. While there is one area that is slightly cleared that provides access for fishing, there are currently no spots in the park where a person can legally launch a kayak or canoe.

During the LWRP public workshops, City residents expressed an interest in seeing improved water access points at the park for both fishing and boating. Many families with young children live near the park and people expressed a desire for a playground and additional park benches. While the picnic areas provide seating, older residents expressed a desire for additional bench seating closer to the shore, so that park goers may sit along the shore and view the Hudson River. Workshop participants also expressed a desire to see the development of water-enhanced uses that would attract more of a cross-section of people, both residents and non-residents, younger people, older people, and families, and would provide a potential spark to encourage economic revitalization in the City and in its beleaguered waterfront area. Ideas for water-enhanced uses identified by participants during the LWRP public workshops including developing a restaurant at the park and an outdoor theater for summertime concerts.

Unfortunately, the realities that this is the City's only waterfront park area and it is severely limited in size presents a very large impediment to developing new uses at the park. The City must be very judicious in how it considers development of the park, to ensure that the park has broad appeal and

## Inventory and Analysis of Existing Conditions

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*Hudson Shores Park Pavilion.*

maintains a balance of diverse uses. For instance, while a boat launch was identified as a potentially desirable use, the idea was nixed by the City as the development of trailer parking to accommodate boat launch users would require paving too much parkland, ultimately diminishing the park's appeal for non-boaters.

The City may be able to consider several of the other uses, such as a playground, suggested by participants in the LWRP process. The National Recreation and Park Association promotes a standard for playground development that identifies a range of  $\frac{1}{4}$  acres to  $\frac{1}{2}$  acres for each 1,000 residents in population. The Watervliet waterfront area has an estimated 2003 population of 2,100. Although Pershing Green, Reds Field and the Seventh Street parks all have playgrounds, these parks are all located south of the Watervliet Arsenal. There is no playground in the waterfront area north of the Arsenal. A playground at Hudson Shores Park would range in size between  $\frac{1}{2}$  acre and 1 acre. Development of such a playground would add to the park's variety of uses and would not require the use of too much land. Another possibility for expanding the diversity of uses at the park includes the use of temporary, waterside structures.

### *Mohawk Hudson Bike Hike Trail*



*Mohawk Hudson Bike Hike Trail Entrance.*



*Mohawk Hudson Trail Parking.*

The Mohawk Hudson Bike Hike Trail is both an off-road and on-road cycling and hiking facility. Beginning at the Corning Preserve in downtown Albany, the trail is off-road through the Village of Menands and the Town of Colonie, up until Fourth Street in the City of Watervliet. It should be noted that through the Town of Colonie, adventurous trail users vary their hike by taking an alternate route through the historic Schuyler Flatts, the Schuyler Flatts Connector. At Fourth Street in Watervliet, the off-road segment of the Mohawk Hudson Bike Hike Trail terminates and from this point, the trail segment runs coterminous with Broadway/NY Route 32 through the City of Watervliet. At Twenty-fifth Street in Watervliet, north of Henry Hudson Shores Park, the Bike Hike Trail turns to the northeast into the Village of Green Island. This trail segment continues as an on-road trail until Alexander Street in Cohoes when a new off-road facility begins.

Owned by the NYS Department of Transportation, Albany County is responsible for the Mohawk Hudson Bike Hike Trail's maintenance. The trail provides a relatively flat and protected course, as well as an attractive view of the Hudson River. The trail continues off-road along the river in Watervliet because the strip of land between the highway and the river is very steep and narrow. At the time the trail was built, the costs of making necessary improvements to the bank outweighed the perceived benefits of extending the bikeway. As it currently exists with the on-road segment, trail users must often contend with vehicular traffic on Route 32, as it is a busy thoroughfare, and cars parked along the on-road trail, both of which limit visibility for cyclists and contribute to safety problems.

*The Mohawk Hudson Bike Hike Trail Crossroads Connections Study*, completed in July 2003, recommended constructing an off-road connection that would link the Mohawk Hudson Trail with Hudson Shores Park. This study also recommended connecting the Mohawk Hudson Bike Hike Trail in Menands with the Schuyler Flatts recreational facility located in the Town of Colonie but with an entrance in Watervliet at Broadway and 1<sup>st</sup> Street.

Parking for trail users is provided in Watervliet at Fourth Street and also in the City of Albany where the trail originates. The Watervliet parking lot provides parking for about 30 vehicles. The trailhead area is also used as an access point for fishing in the River

### *Parks and Recreational Areas*



*Canon commemorates history in munitions manufacturing outside the Community Center.*

and the trail is also used during winter months for cross-country skiing.

The City would ultimately like to see the trail extended north of Fourth Street and connected to the trail in the Hudson Shores Park. The City has sought grant funds to facilitate the development of a connection between the two trails.

In addition to Hudson Shores Park and the Mohawk Hudson Bike Hike Trail, Watervliet has a number of parks and recreational areas located within or adjacent to the waterfront area.

- **Pershing Green:** This park, named after famed General "Black Jack" Pershing, is located at Second Avenue and Fourth Street. Park amenities include a basketball court, swings and playground.
- **Seventh Street Park:** This park is located at Seventh Street and Second Avenue in the City's Port Schuyler section. Park amenities include a basketball court, swings and playground apparatus, and a summertime spray pool.
- **Reds Field:** This playground and park area is located at Eighth Street and Third Ave in Port Schuyler. The park amenities include a baseball/softball field and a basketball court. This park is located just beyond the waterfront coastal boundary.
- **The Dome:** also known as the Watervliet Veterans Memorial Recreational Facility, is an indoor facility that provides a year round location for recreational activities. The facility is located at Second Avenue and 13th Street. Recreational activities at the Dome include ice-skating in the winter and basketball and soccer during the summer.
- **City Pool:** The City maintains a municipal swimming pool that is open to residents of the City. Located on Second Avenue, between 15th and 16<sup>th</sup> Streets.
- **Veterans Memorial:** Located next to the City Pool on Second Avenue at the corner of 16<sup>th</sup> Street is the new



*Schuyler Flatts Historic Site and Recreational Trail has an entrance on Broadway at 1<sup>st</sup> Street.*

Veterans Memorial. This passive park area includes a memorial, with flower garden and seating.

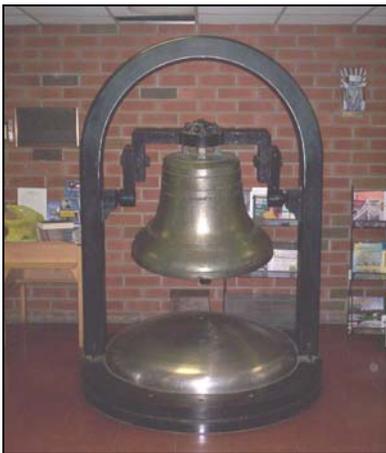
- **The Watervliet Civic Center:** Located at First Avenue and 14<sup>th</sup> Street, this facility houses many programs for young people including golf lessons, basketball, and billiards.
- **Watervliet Community Center:** Located on Broadway between 15<sup>th</sup> and 16<sup>th</sup> Streets, the community center doubles as a senior center and a library.
- **Schuyler Flatts:** A National Register listing, Schuyler Flatts was also designated a National Historic Landmark on November 4, 1993. The area contains the archeological remains of 6,000 years of human occupation including intact features and artifactual evidence. Located in the Town of Colonie immediately to the south of Watervliet, Schuyler Flatts was recently rehabbed by Colonie with assistance from the City. The area is a multi-use facility with open space that can be used for recreational purposes as well as areas with historic markers that identify the historic nature of the site. A foundation owns the property and the Town of Colonie maintains it. There is an entrance to the park in Watervliet at 1<sup>st</sup> Street and Broadway, or via the Fourth Street trailhead.

## Historic Resources

### *Hudson Mohawk Urban Cultural Park/RiverSpark*



*This Historic Marker commemorates the Erie Canal Side Cuts.*



*A Meneely Bell Sits in the Watervliet Community Center.*

While the City of Watervliet is an area rich in historical and cultural resources, this fact is underplayed by the lack of resources identifying the City's role in New York's industrial history. See [Historic Resources Map](#).

The Hudson-Mohawk Urban Cultural Park, known as RiverSpark, is an innovative park design that preserves, interprets and promotes the historic resources and heritage of a region that was at one time the industrial heartland of the nation. In addition to Watervliet, RiverSpark's other member communities include the Cities of Cohoes and Troy; the Villages of Green Island and Waterford; and the Towns of Waterford and Colonie. First developed in 1977, the Hudson-Mohawk Urban Cultural Park was the model for the State's Heritage Area System, created later in 1982. The park's infrastructure includes three visitor centers located in Troy, Cohoes and Waterford with a new center currently being developed on Peebles Island.

Themed attractions designed to interpret the park's labor and industry theme include the Watervliet Arsenal Museum and the R & S Car Shop in Green Island. In addition to learning experiences, RiverSpark promotes recreational activities such as bicycling, boating, and sightseeing. A 28-mile Heritage Trail links the park's many historic and recreational resources. In addition to the City's recreational resources, RiverSpark includes the following historic resources in its cultural resource inventory: the Watervliet Arsenal, site of the James Roy Mills woolen mill and associated worker housing, and the Erie Canal's sidecuts.

Although the City is one of the original member communities of RiverSpark, they have not maintained their involvement with the Heritage Area. One potential resource that the City could promote is its place in the history of American bell casting. Troy and West Troy (now Watervliet) were at one time home to four separate bell-casting foundries, producing more bells for the nation than any other region. Three of the four also made chime sets. Many of these bells and chimes are still in existence today. Torn down during the urban renewal period of the 1960s, one of the most prominent of the area's bell manufacturers was the Meneely Bell Foundry, located on Broadway in what was formerly West Troy. In 2002, RiverSpark celebrated the 200<sup>th</sup> anniversary of Andrew Meneely's birth with special exhibits, lectures, and a bus tour of

### *National Heritage Areas*



*Postcard of Erie Canal at 23rd Street Side Cut in Watervliet*

### *National Register of Historic Places*

local bells. According to RiverSpark, they continue to receive many inquiries about Meneely bells.

The City of Watervliet is also within close proximity to two very important National Heritage Areas. These are the Erie Canal National Heritage Corridor and the Hudson River Valley National Heritage Area. Heritage areas were developed as a strategy to encourage residents, government agencies, non-profit groups, and private partners to collaboratively plan and implement programs and projects that recognize, preserve, and celebrate many of America's defining landscapes. The heritage areas seek short and long-term solutions to their conservation and development challenges by fostering relationships among regional stakeholders and encouraging them to work collaboratively to achieve shared goals.

The Erie Canal National Heritage Corridor Commission recently completed a new Preservation and Management Plan to guide future development and projects along the corridor.

#### **The Watervliet Arsenal Historic District**

The Watervliet Arsenal Historic District is one of two sites within the City of Watervliet listed on the National Register of Historic Places. Adjacent to and visible from the Hudson River, the district includes a variety of noteworthy buildings, including the Iron Building, which houses the Watervliet Arsenal Museum. The Arsenal, founded in 1813, was also designated a National Historic Landmark on November 13, 1966.

The Iron Building, also known as Building 38, was erected in 1859 and is made entirely of pre-fabricated cast iron plates, cast and wrought iron trusses, and sheet steel roofing. Originally a storage facility for tools and equipment, the building's entire 30,000 square foot area houses a museum, archives, offices and storage. Artifacts on display range from special leather goods manufactured at the arsenal to the world-class quality cannon for which Watervliet Arsenal is known.

As one of RiverSpark's major theme attractions, the Arsenal Museum interprets the Arsenal's history, including the role it played in America's defense since 1813, as well as its role in the economic development of the region. The Watervliet Arsenal Museum tells the story of America's development of cannon as well as the history of America's oldest, continuously active arsenal.



*Erie Canal at the Side Cut at 23rd Street with the "Viking" en route to Chicago World Fair in 1895.*

### ***Other Potential Historical Resources***

As a Certified Army Museum, the Arsenal Museum is free and open to the general public from 10 a.m. to 3 p.m. Sunday through Thursday. Visitation has been as high as 5,000-6,000 annually, but in recent years has been around 3,000. There is also a library and research facility complete with historical publications, photographs, and other files describing military history.

#### **Watervliet Side-Cut and Double Lock**

The second site in Watervliet is the Erie Canal's side-cut and double lock. According to NYS Department of Transportation officials, this site is buried in sand under the northbound exit ramp of Interstate 787 at 23rd Street.

#### **Schuyler Flatts**

Schuyler Flatts is another National Register site, in addition the site was also designated a National Historic Landmark on November 4, 1993. The Flatts, located south of the City in the Town of Colonie, is accessed via an entrance on 1<sup>st</sup> Street at Broadway or through the Fourth Street trailhead. The area, one of the earliest settlements along the rich, alluvial flatlands on the bank of the Hudson, has great archeological potential due to its long history of settlement. Of primary importance in its history were settlements by the Indians, and subsequently by the Dutch. The site is named for the Schuyler family who established a late 17<sup>th</sup> century farm. The area was also used as a camp and hospital grounds for Revolutionary troops.

*The Hudson-Mohawk Urban Cultural Park Heritage Trail Technical Report* (prepared by the Preservation/Design Group and the Reimann-Beuchner-Crandall Partnership in 1979) included a comprehensive Cultural Resources Inventory for the City of Watervliet. During the 1980s LWRP planning process, a licensed architect familiar with National Register designation criteria conducted a visual exterior inspection of the properties listed in that report. As part of the 2004 LWRP planning process, site visits were conducted to ascertain whether the structures from the 1979 report still existed and were still in a condition qualifying them as potentially eligible for the National Register. While several structures, such as Public School #1, are in a state of disrepair, they are still noteworthy for their historic significance and architectural qualities.

During the LWRP planning process, the Community Advisory Committee identified an area that, due to a concentration of historic resources, had potential for the creation of a local historic district. The City may explore such a designation in the future. This area, encompassing Broadway west to Second Avenue and north of the Arsenal to 15<sup>th</sup> Street, includes several of the resources identified in **Table 11**. These resources are indicated with an asterisk (\*).

The St. Nicholas Ukrainian Catholic Church, located at 2410 Fourth Avenue, at the corner of 24<sup>th</sup> Street, is just beyond the coastal boundary. This Church was recently identified for inclusion on the State and National Historic Place Registers.

281 Broadway	Watervliet City Hall (15 <sup>th</sup> Street & Broadway)*
329-399 Broadway	Russell Place (13 <sup>th</sup> Street & 1 <sup>st</sup> Avenue)*
401-429 Broadway	201-209 Thirteenth Street*
525 & 529 Broadway	1425 & 1429 Broadway*
527 Broadway	1437 Broadway*
Public School #1	1445, 1449, 1453 Broadway*
779 Broadway	United Methodist Church (1409 First Ave.) *
917 Broadway	1432 First Avenue*
937 Broadway	1415 First Avenue*
953 Broadway	1436 First Avenue*
2101 Second Avenue	Reformed Dutch Church
2115 Second Avenue	201-203 16 <sup>th</sup> Street
2121 Second Avenue	Mc Intyre Hose Company
Ukrainian Church	VFW northern foundation wall - Erie Canal
St. Patrick's Church	19 <sup>th</sup> Street

***Other Potential  
Archaeological and  
Underwater Resources***

According to the NYS Office of Parks, Recreation, and Historic Preservation, the City of Watervliet is, as is much of the Hudson River corridor, a significantly archeologically sensitive area. This is unsurprising given the historic role the Hudson River played in the life of both Native Americans and early European settlers. During the construction of I-787 in the 1960s, the potential for archaeological resources located along both sides of the highway was well documented. Any land disturbance of these areas would likely trigger the need for an archaeological survey.

While there is the potential for archaeological resources in the lands along the Hudson, no underwater resources, such as shipwrecks, have been identified along the river bottom itself.

## Natural Resources

### *Wetlands and Flood Zone Areas*



*View of Mohawk Hudson Trail  
Entrance From River.*

### *Wildlife/Fish Resources Area*

Environmental conditions identified and examined during the LWRP planning process include the following: wetlands and flood prone areas, fisheries and wildlife, soil and erosion, steep slopes, water quality, and noise.

Wetlands and activities in them are regulated by the NYS Department of Environmental Conservation and the U.S. Army Corps of Engineers. NYSDEC wetland classification determines what uses are permitted in wetland areas. There are four classes of wetlands - Class I being the most sensitive, thus the most limited in terms of permitted uses; and, Class IV being the least sensitive.

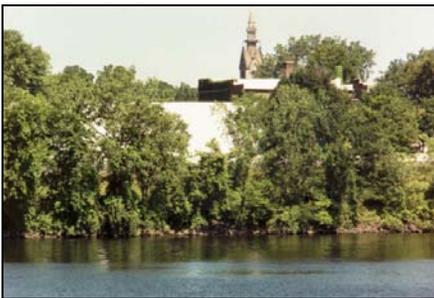
The NYS Department of Conservation has identified and regulates a freshwater wetland at the City's southern end, bordering the Mohawk Hudson Bike Hike Trail head and partially under I-787. The wetland is 14.6 acres, however only about 6 acres is located in Watervliet. The remainder is located in the Town of Colonie. Part of the Schuyler Flatts wetlands, this wetland is known as "Little River." Due to its location within an urbanized area, the wetland is designated Class II. Permits for activity in a Class II wetland are issued only if a significant social and economic need is demonstrated, which clearly outweighs the loss of the benefits provided by the wetland.

Through the National Flood Insurance Program, the City of Watervliet established regulations designed to protect against damage from flooding within the flood hazard area. While not entirely seasonal, most major flooding occurs in the City from February through May, as a result of snowmelt and spring rains. However, flooding has occurred in summer and fall months as a result of frontal storms. Major floods occurred in 1857, 1886, 1900, 1902, 1913, 1936, 1949, and 1977.

Please see the [City of Watervliet Natural Resources Map](#) for a delineation of the 100-year flood zones and identification of the City's major soil types. Base flood elevations for Watervliet range from 24 feet at the southern end of the City, to 27 feet at the north.

As an estuary, the Hudson River supports an abundant variety of natural resources. According to NYSDEC, the estuary contains important spawning and nursery grounds for commercially

### *Soil and Erosion*



*Watervliet's shoreline.*

valuable fish and shellfish. NYSDEC, in 2001, identified the Hudson River adjacent to Watervliet, as supporting a freshwater fishery that includes sportfish such as largemouth bass, smallmouth bass, striped bass, walleye pike, northern pike, tiger musky, American shad, and gizzard shad. Many of these species feed on the migrating runs of blueback herring and alewives. Other fish identified as utilizing the area include the Atlantic sturgeon and the endangered shortnosed sturgeon, as well as white perch, yellow perch, brown bullhead, catfish, and eels.

The river's tidal wetlands and beds of submerged aquatic vegetation support numerous other ecosystems, including a variety of plant and animal species. The river offers important resting and feeding areas for migratory birds.

A waterfowl wintering area has been identified as existing in the area from the federal dam in Green Island, south to the Congress Street Bridge. The small islands in the river (the largest of which is Center Island) provide a protected area away from the river's main channel, where waterfowl such as mallards and black ducks are concentrated in winter months.

*The Soil Survey of Albany County*, completed in 1992, identifies much of the soil along the waterfront as being urban land and clayey urban land, with a composite of urban land and clayey and loamy Udorthents soils. This composite is usually about 50% urban land, 30% Udorthents, and 20% other soils. Slopes range from 0 to 8%. Typically the surface layer of Udorthents is about 5 inches thick, with the layers below the surface to a depth of 60 inches or more, a brown and yellowish brown silt loam to silty clay containing as much as 40% rock fragments. The natural drainage, permeability, available water capacity, and runoff vary with the soil material. Urban land runoff is rapid.

The Arsenal has some areas where the soil is Nassau channery silt loam, both rolling and undulating. For the rolling variety, these soils are shallow and excessively drained, with slopes ranging from 3% to 15%. For the undulating variety, these soils are shallow and excessively drained, with slopes ranging from 3% to 8%. For both varieties, the surface layer is typically dark grayish brown channery silt loam about 8 inches thick. The subsoil is yellowish brown and about 8 inches thick. Dark gray shale bedrock is located at a depth of 16 inches. Depth to bedrock is 10 to 20 inches, limiting

the rooting depth. Permeability is moderate, while available water capacity is very low.

The northern part of the waterfront, right along the shoreline, is characterized as landfill. The construction of Interstate 787 prompted major changes in Watervliet's shoreline. Largely made up of fill, the shoreline has been rip-rapped with rock for bank stability. As these soils are principally fill and alluvial deposits, they are susceptible to erosion because the particles are small and easily transportable. Erosion may occur in areas where the riverbank is steep, particularly where it lacks sufficient vegetation to provide stability. However, there have been no problems with erosion along the City's shore in recent years.

### *Slopes*

The City of Watervliet's Hudson River shoreline is characterized primarily by steep slopes. The segment of shoreline owned by the Watervliet Arsenal, encompassing the shore directly across from the Arsenal, is the most narrow, steep portion of the shoreline. Lacking any developable land, this segment is fortified by a retaining wall. To the north of the Arsenal, the City-owned Hudson Shores Park, and to the south, the State-owned Mohawk Hudson Bike Hike trail, both have wider flat lands with some steep areas closer to the riverfront. A good portion of Hudson Shores Park is sloped, rendering a sizable portion of the park undevelopable for recreational purposes.

### *Hudson River Water Quality*

In this area, the Hudson River has long suffered from chemical and biological pollutants. According to NYS Department of Conservation, Region 4, in a correspondence dated June 17, 2004; the stretch of the Hudson River adjacent to the shoreline of Watervliet is classified as Class C. As Class C, the water is regarded as good for fish breeding and fishing. There are moderate impairments due to the presence of priority organics and Polychlorinated Biphenyl (PCB) contamination. While the river is currently regarded as unsuitable for swimming or drinking, there are Statewide goals to improve water quality, allowing the river to be swimmable by 2009.

### *Stormwater Management*

While the City is designated as an MS4 community, it currently has no parcels, aside from parklands, exceeding one acre in size. Watervliet has been proactive in educating the public on preservation of water quality. In conjunction with the Village of

Menands, the City held a workshop on safe lawn care. Educational programs addressing stormwater management have also been broadcast on the local television network.

In addition to the City itself, the City has three major independent contributors to stormwater runoff. These are the Town of Colonie, the Watervliet Arsenal, and I-787. The Town of Colonie, which encircles the City on its three landward sides, contributes more than 80% of the total volume of stormwater that passes through the City's systems. The exact extent and impact of discharges from the Watervliet Arsenal, which comprises about 25% of the City's land area, is not known. I-787 generally sheds runoff to both the east and west along the City's Hudson River shoreline.

The City has been actively addressing water quality issues on two important fronts. The City has been actively participating on an Albany County Water Quality Sub Committee that deals solely with stormwater issues. One primary objective of the committee is to assist municipalities in developing and implementing newly identified federal requirements from the Environmental Protection Agency. The Committee also works to efficiently channel the resources of the Capital District Regional Planning Commission (CDRPC), Albany County Soil and Water Conservation, and Albany County Planning. Albany County Planning, on behalf of the committee, applied for and received a \$100,000 grant to assist in this endeavor. Using monies available from several sources (including grant funds allocated for stormwater management, 604B Program funds disbursed through CDRPC, and Albany County Soil and Water resources), the committee has focused on developing a variety of activities, so that the overall effectiveness of the funds is maximized.

Activities funded through the program include public education and outreach; training building officials; educating zoning and planning board members; and training contractors. Other objectives include the evaluation of stormwater management plans as they impact adjacent communities and developing intermunicipal agreements, GIS mapping, assessment of local land use, and providing educational resources for all communities.

Watervliet's stormwater management program includes public outreach and education to inform residents of the impacts associated with illegal discharges and improper disposal of

household chemicals. The City will also draft an ordinance in the future to address all aspects for the proper channeling of stormwater. This will include developing an appropriate design as well as establishing maintenance guidelines for newly-constructed properties on 1+ acre sites. This will insure that best management practices are being implemented.

The second area where the City has been attempting to address water quality issues is the combined sewer overflows, CSOs. The City currently holds a SPDES permit that was revised recently to comply with the Federal Combined Sewers Overflow Policy. The permit set forth the best management practices that the City has in place and will continue to follow. The permit also outlines the timetable for the creation of a long-term control plan for the City and five of its adjoining neighbors that have CSO's along the Hudson River. The City has been working in conjunction with these neighbors – Albany, Troy, Cohoes, Green Island, and Rensselaer – with CDRPC and DEC in developing a long-term control plan. This project is estimated to cost in excess of \$4 million. Based on the findings and recommendations of the study, substantial improvements to the water quality of the Hudson River should result.

At present, there are a limited number of sources of direct discharge into the Hudson River from the City of Watervliet. The Watervliet Arsenal has a treatment plant where it processes industrial wastewater, including operational and cooling water. The plant treats chromic acid laden rinse waters and oily wastes, releasing chemically safe waters to the Hudson River under New York State Department of Environmental Conservation permits. The environmental composition levels of the Arsenal discharge falls well within the requirements identified by the Clean Waters Act for aquatic use. The solid sludge generated through the treatment process is removed to appropriate landfills.

While the City currently has five (5) outfalls, consistent with its cooperative efforts with adjacent communities, Watervliet has taken proactive steps to eliminate overflows from its combined sewers. Discharges from the city's combined sewer overflows (CSO) occur only in wet weather. In 2003 the City was able to, through a bond act grant, remove one CSO from its inventory.

**Noise**



*No Visual or Sound Mitigation along I-787 on Broadway.*

One of the most obvious and difficult environmental issues in the waterfront area is that of noise pollution. Interstate 787 is not only a physical barrier, but also a major source of noise pollution in the area. In most areas of Hudson Shores Park and along Broadway, the noise is very pronounced. Traffic volumes along this stretch of I-787 have increased considerably, by more than a third, in recent years. (Please see **Table 12** that follows). Recent reconstruction and repaving of I-787 resulted in the highway being raised along its entire length, varying between a few inches to at least a foot in some sections, making the noise even more pronounced. To encourage more recreational users to both waterfront parks, the Mohawk Hudson Bike Hike trail and Hudson Shores Park, as well as to encourage visitors to Broadway, mitigation must be installed.

**Table 12: Interstate 787 Traffic Volumes**

Year of Traffic Count	1994	1997	1998	2000	2002	% Change 1994-2002
Segment: Colonie to Route 7	55,487	59,017	62,103	69,041	74,640	34.5

Source: New York State Department of Transportation Traffic Volume Report and HSR Report Annual Average Daily Traffic.

**City of Watervliet Harbor Management Plan**



*Vacant Lots on Broadway are Used Exclusively for Parking.*

The City of Watervliet recognizes the need to manage its near shore area of the Hudson River and has integrated a Harbor Management Plan within the LWRP. The Inventory and Analysis has discussed the many uses and issues associated with the Hudson River in the City of Watervliet. The key issues identified in this section relate to a number of harbor management issues. These include:

- reconnecting the City to its waterfront,
- providing for improved public access,
- maintaining a balance of uses along the shore,
- and ensuring water quality protection.

## Inventory and Analysis of Existing Conditions

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*Unmitigated View of I-787 on Broadway.*



*Broadway at 23<sup>rd</sup> Street with I-787 Ramps. This is pedestrian access for Hudson Shores Park.*

There are no commercial shipping, commercial fishing, or underwater land issues of significance in the harbor management area of the City of Watervliet.

The major issue of local importance is the need for the City to be reconnected with its waterfront. The construction of I-787 in the 1970s effectively cut the shoreline from the rest of the City. The linear shoreline was eventually turned over to the City and it now houses Hudson Shores Park. One access point to the park is located off 23<sup>rd</sup> Street. Pedestrians or cyclists must cross the I-787 on and off ramps before getting to the park entrance. Providing for safer access to the park, as well as additional access points, is a major issue addressed in this program.

With the construction of I-787 during the 1960s and 1970s, Watervliet's connection to its waterfront was effectively severed. At one time the City housed a vital maritime waterfront. For a number of years, following the construction of I-787 in 1973, much of the City's shoreline was little more than a marginal piece of extra right-of-way under the control of NYS Department of Transportation. In 2001, the City of Watervliet bought the northern most portion of this land from NYS DOT for the development of what has come to be known as Hudson Shores Park.

Hudson Shores Park, which effectively functions as the City's waterfront, is not presently used for water dependent uses beyond providing access to the public for fishing and other passive recreational uses, and, if proper infrastructure is provided, could be used for recreational boating. Unfortunately, pedestrian access to the park is best described as hazardous. Limited to one entrance at 23<sup>rd</sup> Street which is technically in Green Island, park-goers are forced to cross several I-787 ramps to get to the entrance.

Since Watervliet acquired Hudson Shores Park, the City has struggled to develop uses at this linear park that are responsive to the expressed needs of the City's residents. While the City did propose the development of a marina at one point the proposed design required too much infill in the Hudson River. Subsequent discussion about establishing a motorized boat launch at Hudson Shores Park was dropped, as the use would, by necessity to provide adequate trailer parking, be done to the exclusion of all other uses at the park. The City now wishes to attract people to the

## Inventory and Analysis of Existing Conditions

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*Mohawk Hudson Urban Cultural Park/RiverSpark Trail Under I-787.*

shoreline by providing a restaurant over the water. A barge restaurant would not interfere with fishing opportunities. In fact, allowing such a facility with boat slips would serve to encourage additional recreational boating along the Watervliet shoreline. Because it would not be a permanent structure, it could be removed/relocated in the future if water-dependent uses needed the space. It would also not preclude future active uses within the park, such as the amphitheatre.

The City of Watervliet is fully sewered. Any new uses at Hudson Shores Park, proposed by the City to further advance its goals identified in this LWRP, will be required to connect to the City's public infrastructure. As the Hudson River, between Battery Park in Manhattan and the City of Troy's dam in Rensselaer County, was designated a no-discharge zone in November 2003, any vessels traveling or moored within the area are prohibited from discharging any kind of boat sewage. At the time of the designation, it was determined that the 35 pumpout facilities along the Hudson were more than adequate to service these vessels. As of January 2005, the Hudson River has 38 pumpout facilities.

As the City's shoreline is severely constrained by its small size, its lack of privately owned developable parcels, its lack of accessibility, and the nature of much of the shoreline itself, which is characterized by steep grades, the location has not attracted any water dependent commercial uses since the construction of I-787. Additional limitations to development are presented by the proximity of the Federal Channel along Watervliet's shoreline. As none of these limitations are temporary in nature, the waterfront's lack of appeal for water dependent commercial uses is unlikely to change anytime in the near future.

# Infrastructure

## Sewers



*Fully sewerred, Hudson Shores Park has restroom facilities.*

## Water Supply

The City of Watervliet is completely sewerred. Watervliet's sewage disposal system is connected to the Albany County system. The City routinely contributes less to the facility than allocated, and is not overburdening the sewer facility. However, the age of the sewer system --with much of it installed around 1930-- has contributed to a number of problems. Early system designs do not meet modern standards, with the system combining both sanitary sewage and storm runoff, causing an increased burden on the sewage treatment plant during rainstorms. Historically, the Port Schuyler neighborhood has experienced the worst overflow problems. The City has recently installed several storm and sanitary sewers that have succeeded in reducing the effluent from the combined sewer outfalls, providing residents with a more dependable system.

In 2003 the City removed one CSO from its inventory. Currently, the City experiences discharges from the city's combined sewer overflows (CSO) only in wet weather conditions. Continued capital improvements to separate combined storm and sanitary sewers is desirable, as it would eliminate a source of pollution.

Watervliet's waterfront revitalization area, as well as the entire City, is serviced by a municipal water supply. The City uses the 480-acre Watervliet Reservoir in the Town of Guilderland for its public water supply. Since the City has municipal water, the quality of their potable water is relatively consistent. However, the City occasionally must address problems due to the advanced age of the system. Almost 40% of Watervliet's water system was built in 1915. Another 55% was built between 1935 and 1945. The system accommodates approximately 2,800 service connections and, in 2002, the total water delivered to the City was approximately 1 billion gallons with the daily average being 2.75 million gallons.

A study completed for the U.S. Army Corps of Engineers in 1981, the *Watervliet, New York Water Distribution System Network Analysis*, identified a number of primarily age-related problems with the City's water distribution system. In addition to a susceptibility to leaking, the U.S. Army Corps of Engineers identified many of the water mains as being insufficiently sized for fire protection and for compliance with current engineering practices. Corrosion had also significantly impacted carrying capacity in many cast-iron mains. Many major mains had an excessive head loss and the entire

system's flows were inadequate for fire protection. A major flaw with the system was that only one major transmission main connected the distribution system to the water supply.

Since that 1981 report was completed, there have been major improvements to the water distribution system. The City has taken an aggressive approach to reducing water loss. Through a proactive leak detection program, leaks have been identified and corrected. Based on current flow information and on the bi-annual leak detection program the City is currently below the 15% standard established by the American Water Works Association.

Watervliet also enacted a program to eliminate undersized water mains. Since 1985, a number of undersized mains have been replaced through public works projects. Also as part of this capital improvement program, the City installed several new mains to complete the grid system and eliminate dead ends. The capital projects in 2002 alone resulted in approximately 2,600 linear feet of 8" water main along Fourth Avenue (from 19<sup>th</sup> Street to the north municipal line), while a new main was also installed along 8<sup>th</sup> Street (from Broadway to Third Avenue). To address corrosion in the water distribution system's mains, in 1986 Watervliet began adding an inhibitor during the treatment process. There has been a measurable reduction in the rate of turburculation of the City's system. In 2002, aeration was installed at the service reservoir.

In 1986, the City installed a second major feed to the northern end of the city. This new transmission main made a significant improvement in the overall reliability of the system. A new interconnect with the City of Troy, capable of providing 1.2 million gallons per day, was installed at Schuyler Flatts. The City also has interconnects with the Town of Colonie and the Village of Green Island. These interconnects can provide the City with all the water necessary to carry out domestic and business needs if activated.

The actions the City has taken to address flow and pressure problems have resulted in a marked improvement of the overall system. This improvement is demonstrated in the 1995 ISO Analysis performed by Commercial Risk Services. In their evaluation of Watervliet's system, the City went from an overall rating of class 6 to a rating of class 4. This reduction in the rate resulted in lower fire rates for mercantile properties within the city. A jump of two points indicates the achievement of significant major improvements.

# Transportation

## *Introduction*

As it was with many of New York's older urban areas, proximity to the Hudson River is what prompted the settlement of the villages once known as Gibbonsville, Port Schuyler, and West Troy. With the creation of the Erie Canal, a vital transportation route was established, leading boaters directly through the center of Watervliet and influencing the evolution of land use development of the area, including the City's development as a regional industrial center.

## *Highway and Road Network*

Watervliet is centrally located amidst several of the Capital Region's major transportation routes. Watervliet residents have a direct connection to points north, south, east, and west by means of I-787, which connects with Route 7 north of the City and the NYS Thruway (I-87) south of the City. NYS Route 2, known as 19th Street within the City limits, provides a direct and vital connection to another major north-south route, I-87 (Northway) to the west as well as a connection to Troy to the east. NYS Route 32 is a north-south arterial and is Second Avenue north of the Arsenal and Third Avenue south of the Arsenal. The City's internal transportation network, as well as its Central Business District hub, is centered on the intersection of NYS Route 2 and NYS Route 32.

## *Traffic Volumes*

NYS Route 2 currently serves as a Principal Urban Arterial, connecting all the various components of the city such as the riverfront, Central Business District, and Interstate I-787 as well as providing a linkage to neighboring Town of Colonie and City of Troy (via the Congress Street Bridge over the Hudson River). A major east-west route used mostly as a "pass through" commuter roadway, NYSDOT Traffic Volume Report and HSR Report Annual Average Daily Traffic (AADT) counts indicate that 13,900 vehicles traveled on the segment of Route 2 between Route 32 and the Albany County line experienced an AADT of 15,400 vehicles in 2000.

NYS Route 32 progresses in a north-south direction and is classified as a Minor Urban Arterial. Passing through the eastern portion of the City, this route provides a major connection for commuters traveling to I-87 west of the City. Traffic counts indicate that the traffic volumes on Route 32 vary widely, with the segment between Route 155 and Route 2 having an AADT of 3,150 vehicles in 2002, while the segment between Route 2 (19<sup>th</sup> Street) and 23<sup>rd</sup> Street --the City's Central Business District --had an AADT



*Third Avenue by the Arsenal Exit Lacks Crosswalks.*

### ***Watervliet Arsenal Traffic***

### ***Truck Traffic***



*Broadway at 16<sup>th</sup> Street lacks a crosswalk.*

of 13,400 vehicles. The segment of Route 32 between 23<sup>rd</sup> Street to the north City Line had an AADT of 6,400 vehicles in 2002.

The remaining roads within the study area are classified as local roads. The primary function of local roads is to provide access to various land uses. They serve short trips, moderate speeds and do not carry large volumes of traffic. Many local roads in the study area have been converted to one - way streets to increase the number of parking spaces. Although one-way streets can hinder ease of circulation, it does maximize parking spaces in confined areas.

The City's major gateway entrance is at 23<sup>rd</sup> Street and Broadway, the exit for I-787. A confusing entry into the City, vehicles from four separate off-ramps converge at 23<sup>rd</sup> Street to a set of blinking caution lights. Those looking to get onto Broadway in Watervliet need to make a right turn from the left most lane in order to be positioned properly to get onto Broadway. In addition to a lack of signs indicating where the City's resources are, there is insufficient time to identify where one must go. The intersection should be improved via timing and light improvements as well as additional signage.

Watervliet Arsenal traffic includes approximately 1,000 employees, as well as periodic shipments, deliveries, and visits by contractors and others. In addition, the Arsenal has an Interagency Support Agreement with the New York Army National Guard. That agreement allows the National Guard to make repairs to its motorized and tracked vehicles at the Arsenal.

Truck traffic or heavy vehicles as they are sometimes called, differ from passenger cars and light trucks by their size, weight, and operational characteristics. Due to the excessive weight of truck traffic and the difficulty encountered when maneuvering, the amount of truck traffic can significantly affect the longevity of pavement, curbing, driveway entrances and other features of the roadway system if not properly designed. Truck traffic also imposes environmental impacts, such as noise and air pollution, not to mention inconvenience and aesthetic displeasure. According to the NYSDOT, Official Description of Designated Qualifying and Access Highways in New York State, a number of segments on NYS Routes 2 and 32 are designated as qualifying highways for larger dimension vehicles.

### *Pedestrian and Cyclist Access*



*Broadway and 23<sup>rd</sup> Street lack adequate crosswalks.*

### *On and Off-Road Parking Facilities*

Due to the fact that both Route 2 and Route 32 terminate in downtown Watervliet, and both function as designated truck routes, truck traffic utilizes Watervliet's downtown roadways to access the two designated truck routes. The City is aware of this excessive burden on its transportation system and has been pursuing options to rectify this problem.

The Town of Colonie is currently engaged in a planning and design project, which will redirect truck traffic via a new roadway called Elm Street Bypass. Once completed, the new roadway will reduce the amount of truck movement traveling on several residential streets in the City of Watervliet Streets, thus providing a local benefit for economic development and vehicular/pedestrian safety.

Crosswalks, lighting, handicap accessibility, curb cuts, pedestrian crossing signals, drainage, and traffic calming elements are all part of the provisions of a safe pedestrian use system. Due to inadequate infrastructure conditions and limited traffic calming devices, the study area is generally not a pedestrian friendly environment. Sidewalks should be improved throughout the waterfront area, crosswalks need to be better defined, pedestrian signals should be installed, and traffic calming measures should be implemented.

Cyclists currently utilize the travel lane for access. Marked shared - use lanes would improve conditions for cyclists. Except for the terminus of the off-road segment of the Mohawk Hudson Bike Hike Trail, there are no major bicycle accommodations within the City. The Hudson Shores Park trail provides internal access but does not link to anything outside the park.

Major bus stops on Broadway lack crosswalks or pedestrian lights, and many segments of sidewalk along Broadway and Second Avenue have been paved over to accommodate parked vehicles. There are several intersections that, while heavily used by pedestrians, allow right-on-red turns, prompting a dangerous situation. The intersection of Broadway and 19<sup>th</sup> Street is one such intersection.

On-road parking is permitted on most streets located within the waterfront. Route 32 is sufficiently wide enough to accommodate on-street parking along both sides of the street. However, parking



*On-street parking on Broadway.*



*This parking lot on 3<sup>rd</sup> Avenue appears underutilized.*

### ***Public Transit***

is currently prohibited on the east side of the street. There are no pavement markings to delineate spaces or to restrict parking or standing. Parking signs are severely faded and need replacement.

Parking along Broadway is permitted in some areas, prohibited in others. It is permitted at both the northern and southern ends of the City, where residential uses dominate. However, parking appears to be prohibited in the center of the City, near the Arsenal.

In many locations, adequate signage is not provided to indicate if parking is allowed on the street. Many trees are present along Route 2 within the street right of way. The City currently has no traffic calming or other streetscape features in place.

Although the City does own several parcels that may be suitable for parking, it does not currently have a public municipal parking lot. Two City-owned parcels that may be developable for parking uses include one located on Broadway at Fourth Street and one located at Second Avenue and 25<sup>th</sup> Street by the City northern municipal line. There is a City-owned parking lot behind the Senior Center/Community Center, but parking here is for visitors to the Community Center as well as to City Hall.

There are several large, privately-owned parking lots that may be underutilized at various times during the day, and a shared parking space program may be an acceptable alternative to better accommodate increased visitation into the City. The Elks parking lot, located on Third Avenue, between 4<sup>th</sup> and 5<sup>th</sup> Streets, is one such lot, while another is located off Broadway at 19<sup>th</sup> Street.

The Capital District Transportation Authority (CDTA) offers handicapped accessible public transportation services for the capital region. Service for Watervliet residents is provided along CDTA's service Routes #22, 84, & 90. CDTA Route 22 serves the Cities of Albany, Troy, and Watervliet. Route 84 is properly named the Watervliet Belt because it serves numerous bus stops along 19<sup>th</sup> Street, 12<sup>th</sup> Avenue, Crabapple Lane, 25<sup>th</sup> Street, and Broadway in the City of Watervliet. Commuters from Watervliet can also use the CDTA Route 90 bus route to reach destinations such as Crossgates Mall, Colonie Center, Samaritan Hospital, RPI College, and SUNY at Albany. There are many bus stops within the City. However, very few bus stops include bus shelters to

### *Access to Waterfront Parks*



*Hudson Shores Plaza Bus Stop Lacks Crosswalk.*



*Mohawk Hudson Trail Entrance off Broadway Under I-787.*

protect people from inclement weather. Several major bus stops, including the stop on Broadway across from the Senior Center and Library, lack a pedestrian crosswalk or pedestrian signals.

Access to Hudson Shores Park is very dangerous. The entrance to the park is at 23<sup>rd</sup> Street, technically in Green Island. There is an unkempt trail that goes under I-787, crossing several on and off ramps that lead to the park entrance. As the trail is not maintained and is characterized by weeds and overgrowth, cyclists and pedestrians opt to walk along 23<sup>rd</sup> Street to get to the park entrance. Recent traffic volume numbers for 23<sup>rd</sup> Street in the vicinity of the park identified an AADT of 4,500 below Broadway and 11,300 above Broadway. The signage identifying both the park and the trail leading to the park is poorly placed and inadequate. The entrance should be improved to better provide hikers and cyclists with a sense of safety, through crosswalks, pedestrian signals, improved lighting, and traffic light timing.

The access to the off-road segment of the Mohawk Hudson Bike Hike Trail terminus at Fourth Street and Broadway in Watervliet is poor. The entrance to the trailhead is an underpass below I-787. The underpass is unlit and not well maintained and does not present a very good welcome to potential visitors. In addition to lacking lighting, the trailhead entrance lacks sufficient signage and a crosswalk.

## Issues and Opportunities



*Broadway in Center of City. See I-787 in Background.*



*Example of a vacant building on Broadway that is in disrepair.*

The construction of I-787 along the eastern shore of Watervliet not only isolated the City from the Hudson River, but it also effectively altered the character of the community. Watervliet's original identity, with its proximity to the river and the Erie Canal, was defined by the City's 19<sup>th</sup> century role as an industrial and trade center. In developing an LWRP, the City is looking to reconnect not only with the waterfront, but also reestablish its cultural and historical identity as a waterfront community. This is a formidable task given the impediments that must be overcome, requiring a multi-pronged approach. Given the limitations of the City's waterfront, it is necessary to focus on a wider area, targeting not only the waterfront itself, but also the "upland", that is, the historic waterfront bounded by Route 32, the former Erie Canal path. It also requires elimination of both the psychological and physical barriers imposed by I-787

First, to reengage Watervliet residents with the waterfront, it will be necessary to promote the Hudson Shores Park waterfront for a diverse range of uses appealing to a variety of users. With I-787 truncating the City's shoreline from the remainder of its commercial area, including its upland waterfront area, Hudson Shores Park effectively is the only area available for development of a range of new uses directly on the City's waterfront. Providing multiple uses would make the park more attractive, encouraging more than just early-morning walkers to visit. Increased visitation would reinforce park safety, as the long-held perception of the park being a desolate place is replaced by a growing awareness of constant activity. However, reality dictates that the 9-acre site, characterized by a steeply sloped shoreline, housing approximately 40 parking spaces and several picnic areas, including a pavilion, can only accommodate so much.

In addition to park size, the entire City has been identified by the State's Office of Parks, Recreation, and Historic Preservation as archaeologically sensitive, especially the lands along the Hudson River. Even minimal land disturbance, such as would be required for the installation of lighting in Hudson Shores Park, would likely necessitate an archaeological survey of the area. Additional limitations to in-water development are presented by the proximity of the Federal Channel along Watervliet's shoreline.

The City would like to see Hudson Shores Park developed for waterfront recreational uses-- both water-dependent and water-



*Some Areas of Sidewalk Consist of Paved Slate.*



*Newer Development has been in the Form of Strip Development.*

enhanced uses-- that will appeal to a variety of users --younger people, families, seniors, as well as non-residents--and broaden the appeal of the park. The City would like to see the development of additional active recreational uses at the park, including a playground to serve area residents living north of the Arsenal. More passive recreation could be accommodated by the installation of additional benches oriented towards the water for passive viewing of the river. The City would like to see improved opportunities for recreational water activities, such as boating and fishing in the Hudson River. The City also desires improved, safer pedestrian access to get to the park itself, ways that do not require pedestrians to navigate through the high traffic volumes at the 23<sup>rd</sup> Street entrance.

The City would like the Park to act as a catalyst for additional development in the area. The City would like to see uses at the park that better meet the recreational needs of City residents, while also attract more non-residents to the waterfront. In 2004, Hudson Shores Park was used for a farmers market for the first time. The City is encouraging the continuation and potential expansion of this activity at the park. If deemed an appropriate use compatible with existing navigation in the area, seasonal boat slips along the park could potentially allow for increased boating opportunities. In addition, the City would like to see more public activity, including, possibly, an outdoor theater for shows, and a restaurant. Many Watervliet residents, especially many of the households living in the waterfront area, are moderate and low income. An opportunity for waterside dining allows non-boaters to have an opportunity for casual enjoyment of the Hudson River. In addition to non-residents, a new restaurant in the Park would likely attract those City residents that currently avoid the park due to its desolate reputation.

Unfortunately, the size limitations as well as other constraints provide challenges Watervliet must overcome to develop its waterfront park. The City must evaluate all potential opportunities to increase the diversity of uses supported at Hudson Shores Park. Given the upland constraints, and plans for developing additional uses at the site, such as an outdoor theater, one option for allowing for the development of a restaurant at Hudson Shores Park would be through the use of a barge. The City of Albany, south of Watervliet and similarly cut off from the river by I-787, uses a barge to accommodate a seasonal floating



*Attractive Boulevard Treatment  
on 16<sup>th</sup> Street at 2<sup>nd</sup> Av.*



*Vacant Building on 2<sup>nd</sup> Av at 25<sup>th</sup>  
St Presents Opportunity for  
Redevelopment.*

restaurant at its Corning Preserve. Such a seasonal structure would float on the water and be temporary in nature. Floating docks with boat slips could also potentially allow seasonal mooring of vessels along the City's shoreline. Placing a seasonal barge along the shoreline would not require dredging nor changes in the natural characteristics or values of the river. In addition, the nature of the barge itself will allow visitors to experience actually boarding a vessel at the Watervliet shoreline, which is not something people are currently able to experience. If the City were to allow such a use, it would be permitted as a special use under its zoning ordinance.

The second aspect of the LWRP includes improving the City's "upland" waterfront area and making it "connect" to the river. Route 32 in the City runs parallel to the former Erie Canal path, just west of it. Historically all uses within this area were water-dependent, related to industry or trade or ship-building. While a number of historic sites are indicated via markers, such as the former Erie Canal Side Cuts, others are not. Signs identify the "heritage trail" created by the RiverSpark Heritage Area, but nothing exists to tie these sites together contextually, either to one another or to link them with the overall history of the City. It is possible to walk along Broadway or Second Avenue and be oblivious to the City's historic role in the development of the region. This must be remedied through cultural resource development. Effort must be made to both identify the City's resources and to utilize its rich past in promoting cultural programs, greater use of the riverfront, and economic development.

Much of the City's waterfront upland is underutilized and in need of physical enhancements and financial investment. A small city, slightly more than one square mile, Watervliet does not have a competitive advantage in new office park development. What the City does have is a long, rich history and a relatively intact historic development pattern in much of its waterfront area. The City needs to capitalize more on its inherent values and pursue creating a more attractive environment for residents and visitors alike. In addition to the National Register-listed (and National Historic Landmark) Watervliet Arsenal, the City has several other historically significant resources (St. Nicholas Ukrainian Catholic Church, James Roy Mill Site), as well as cultural icons (Gus's Hotdogs). The City needs to develop a cultural promotion

## Inventory and Analysis of Existing Conditions

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*Vacant building across from Mohawk Hudson Trail presents opportunity for redevelopment.*



*Residential rehab and renovation on Third Avenue.*

program that will link historic structures, sites and uses to the City's history and highlight the City's other resources, including Hudson Shores Park and the Mohawk Hudson Bike Hike Trail. One idea proposed was the development of a local museum in the City's newly acquired court building. The City is also looking to promote the development of tourism-related uses, such as restaurants, outdoor cafes, antique shops, and retail shops. Reestablishing its relationship with the RiverSpark Heritage Area would provide the City with additional opportunities for promotion as well as additional resources and support in program development.

Finally, the third aspect that the City of Watervliet's LWRP must address is physical access to the Watervliet riverfront. Currently, I-787 severely restricts access to the riverfront. Access to Hudson Shores Park is limited to a poorly maintained trail along 23<sup>rd</sup> Street at the northern end of the City, while access to the off-road segment of the Mohawk Hudson Bike Hike trail is limited to the Fourth Street entrance. The Hudson Shores Park entrance is overgrown and is dangerous to access as pedestrians and cyclists must transverse several I-787 ramps. Providing for additional, safer access to Hudson Shores Park would likely result in increased utilization of the park. Possible alternatives for creating additional access to the Park include construction of an overhead pedestrian bridge, a staircase from Congress Street, or an underground entrance from Broadway. An off-road extension of the Mohawk Hudson Bike Hike could be constructed along the shoreline from Fourth Street to connect at 15<sup>th</sup> Street with the Hudson Shores Park trail. In addition to opening up access to Hudson Shores Park via the Fourth Street trailhead, and allowing residents to access the Park via Broadway, it would also result in better utilization of the park, as trail cyclists could continue on to Hudson Shores Park. Improvements must also be made to the trailhead entrance, which is poorly signed, lacks lighting, and is generally regarded as uninviting.

Please see the [Initial Observations Map](#) that includes geographical representation of many of issues discussed above.