

Section II- Inventory and Analysis

Historical Development

The Lower Niagara River and Lewiston area historically played a key role in the commerce and growth of the Niagara Frontier. Early Indians vied for the control of Great Lakes access afforded by the River and established important settlements in the vicinity. The old Lewiston Trail, which followed Center Street in the Village, traversed the ridge of pre-historic Lake Iroquois and was the major Indian transportation route and trade artery between the Niagara Frontier and the Mohawk Valley.

Recorded activities of European explorers can be traced to 1615 when Stephen Brule, an interpreter for the French explorer Champlain, visited the Neuter Indians and spent the winter in the area. He was followed by numerous traders and explorers, who established Lewiston as the primary transfer point of goods through the area via the Niagara Portage around the falls (which have since receded to their present location six miles downriver). The first trading post was established in 1720 by Chaubert Joncaire, a French trader, and in 1764, Captain John Montessor built the first tram railway in America to transport goods up the Niagara Escarpment. The natural landing point at Lewiston and the western terminus of the Lewiston Trail to Albany made the community a major frontier trading settlement, with a thriving portage business, before 1800.

In 1798, the Village of Lewiston was created by the New York State Legislature when the State Surveyor was requested to survey and establish a village of one square mile opposite Queenston, Ontario in honor of New York's Governor Lewis. In 1811, Lewiston became a major port as the Niagara Customs House was moved to the Lewiston docks from Fort Niagara. By 1817, lake steamers were arriving at the Lewiston docks at the foot of Center Street. The population of the Village grew to over 6,000, nearly twice the current population, with development spreading out from the center of the waterfront.

Although waterfront commerce declined greatly with the completion of the Erie Canal, and subsequently the Welland Canal, lake freight via steamers to Toronto and the St. Lawrence River was still important into the early 1900's. The growth of the railroads in America further diminished the activity of lake commerce, but supported the growth of tourism and recreation in the area. Lake steamers continued to carry passengers from Lewiston until 1938, when ice jams destroyed the docks. The Great Gorge Scenic Railway from Niagara Falls to Lewiston ran to the docks (with its adjacent hotels) until the 1930's.

Although tourism remains the primary industry of the Village, the historic waterfront is no longer the center of this activity or village life. Recently, however, with improved water quality and increased recreational use of Lake Ontario and the Niagara River, the natural landing point at Lewiston, providing rare access along the steeply embanked Niagara River gorge, has taken on renewed importance. Today, there are new opportunities for restoring the Village's historical association with the Niagara River in traditional and new ways.

Water and Land Resources

Niagara River/Lake Ontario Area

The lower Niagara River is a swift, north flowing water course that is the spillway between Lakes Erie and Ontario. As the major outlet for the upper Great Lakes, it provides critical water level adjustments and acts as the control for Lake Erie elevations. It empties into Lake Ontario and on through the St. Lawrence Seaway System to the Atlantic Ocean. Average mean water elevation is 248-249 feet (International Datum) above sea level at Lewiston. However, maximum daily fluctuations recorded at the Niagara Power Station (Power Authority of the State of New York) can be three feet above Lake Ontario (mean elevation of 243-247 feet) at the mouth of the River according to the U.S. Army Corps of Engineers. This results in a maximum daily variation in river water level from 244-250 feet at Lewiston, or a six-foot level change that must be compensated for in any in-water or shoreline improvements.

The Niagara River runs through a steep gorge near Lewiston and is well protected from wind and storm action. This creates nearly continuous calm water, excellent for boating and water activities. These activities increase even more when Lake Ontario and the mouth of the River are roughened by winds, as the area acts as a safe harbor large enough to support numerous water sports (sailing, water skiing, fishing, etc.). In addition, the River is widened at Lewiston (due to the original location of the falls at the Niagara Escarpment that created a splash pool at Lewiston) which provides a natural refuge from the swift river current. Water flow is actually up-river at the Lewiston shore, creating a safe shelter for boat launching and landing. It also provides a protected area for spawning of perch and smelt just north of the Lewiston docks. The River is about 1,300 feet wide at this point and approximately 120-180 feet deep. This offers excellent navigational waters that attracted the early lake steamers to Lewiston in the 1800's.

Water Quality

The quality of Lower Niagara River water is partially dependent upon point sources and runoff from upstream uses in the entire Great Lakes System. As the River is a spillway of the system above Lake Ontario, much of the pollutants are carried from the upper lakes and move through the River. Recent problems associated with River pollution include seasonal algae bloom in Lake Erie and the East Branch of the Niagara River, occasional industrial discharges into the upper river (reference: "Niagara River Toxics Report") and possible leachate from toxic landfills into the drainage system, including the river upstream. The swift-running current of the Niagara River currently creates sufficient dilution and transmission of potential pollutants to reduce problems of water quality or sedimentation. Sediment samples taken off the Lewiston dock for a NYSDEC permit for dock renovation (Permit #932-07-0080; March, 1983) indicated total halogenated organics (THO) and mercury levels dramatically below allowable standards: THO samples-0.13 parts per million; mercury levels-0.11 parts per million; NYSDEC standard is 50 parts per million. Oxygen levels in the lower River are near saturation and are excellent for fish support.

Water quality is an important concern to the Village in support of fishing and recreation opportunities. The River is currently designated Class A -Special (International Boundary Waters) and should be

retained as such to preserve this natural resource. The major concerns along the Village shoreline include bank erosion and urban runoff. A section of the shoreline between Onondaga and Center Streets (south of the docks) is unprotected and subject to erosion and should be bulkheaded to reduce further deterioration. Bulkheads south of Center Street may need to be repaired. In addition, overland runoff from the LWRA exits indiscriminately into the Niagara River at numerous points. They often carry urban pollutants (salt, dust, settled particulates) and should be better managed. A drainage study of road/residential runoff into the River is required to insure that recreation opportunities and critical fish habitats are not compromised.

Water Uses/Classification

Lewiston is one of the older communities in Western New York and has been developed for many years. As a result of historical changes in commerce and land use, the waterfront has become underutilized and somewhat neglected. To help assess opportunities for new waterfront uses, off-shore areas have been classified as either River Channel, Transition Waters, or Shoreline Waters and existing water uses and activities within each area have been inventoried ([Figure 2](#)).

River Channel

The Niagara River Channel is well off the shoreline of Lewiston and represents swift-running waters designated as navigable by the U.S. Army Corps of Engineers. Typical uses include boating, fishing, access to Lake Ontario and other river locales, and municipal water supply (farther up-river above the Falls). The channel is quite deep and no longer used for commercial purposes, but provides active recreational and pleasure uses to the area. Local fishing includes perch, smelt, salmon, trout and bass.

Transition Waters

The Transition Waters of the River are defined as the area between shore-line facilities and the channel from the area of Cayuga Street to Oneida Street, inclusive. It is a refuge from the river channel where water flow reverses, creating a mild up-river eddy and protected boat landing opportunity. The area is fully accessible by deep water as the river bottom slopes off very sharply from the shore (formed by the ancient plunge pool of the original waterfalls). No significant shoaling or siltation is known to exist in this area. In the northern portion of this area lies a fish spawning area that is highly favored for fishing (perch, smelt).

Major activities in the Transition Waters are varied. Powered and non-powered boats use the waters for access to shoreline facilities. Off-shore fishing is frequent in this area as in on-shore fishing from the banks, docks and pier. During the summer season, it is not unusual to find children swimming in these waters and/or jumping from adjacent docks. In addition, there is high-speed boating and water skiing, including a ski-jump maintained by a local water ski club and anchored in the water during the main season (May -September).

Many of these uses tend to be inconsistent with one another. The use of high-speed boats and water skiing often conflicts with fishing, non-powered boating or sailing and boat launching/access to shoreline facilities. Most power boat activities conflict with swimming in the area and may pose a substantial hazard to the safety of those in the water. A resolution of incompatible uses and some

segregation is required to accommodate the range of activities, and not totally compromise or endanger one for the sake of the other. Of key importance, also, is the preservation of the fish spawning area to protect the resource that currently draws the bulk of patrons to Lewiston and its waterfront.

Shoreline Waters

Shoreline waters are defined as the area immediately adjacent to the shoreline. This area extends for over 5,600 feet and is where land and water uses interact most heavily. It includes important natural and man-made features which need to be considered in planning for the waterfront.

According to maps provided by the NYS Office of General Services, most of the nearshore area within the Village of Lewiston is owned by the State of New York. In 1895, however, the State made four "beneficial enjoyment grants" which generally convey full ownership rights to upland property owners, provided that the underwater lands were subsequently conveyed to these owners. Ownership rights, however, do not exempt owners from local, State, and Federal regulations governing the use of the underwater lands or the waters flowing over these lands.

According to the OGS maps, the four underwater parcels, all of which are adjacent to the shoreline, include: (1) a parcel extending for the entire length of the block between the Oneida and Onondaga streets right-of-ways, about 465 feet, and extending off-shore for 125 feet on the north side and 100 feet on the south side; (2) a parcel extending south of the Seneca Street right-of-way for approximately 260 feet and extending off-shore for about 120 feet; (3) a small parcel, 67 1/2 feet by 119 feet, located just north of the Tuscarora Street right-of-way; and (4) a parcel located between the Tuscarora and Fourth Streets right-of-ways, which extends for 935 feet at the shoreline and extends off-shore for 100 feet on the north side and 73 1/2 feet off the south side. (Note that the location of these parcels with respect to the shoreline may have been altered with changes in the shoreline from erosion, filling or other factors and can only be determined by a property survey).

Steep banks crown the shoreline north of Onondaga Street and south of Cayuga Street, limiting the development and potential for development of in-water structures. The northern portion of the shoreline above Onondaga Street currently contains no in-water or shoreline structures. Valuable fish spawning beds exist in and adjacent to this area, making it an important sport fishing resource (see also the Fish and Wildlife chapter, below). The area, which is accessible only by boat, is best preserved for fish production. The lands adjacent to the shoreline are privately owned (except for paper street ends) and there is some potential for development of private docking and mooring facilities by adjacent upland property owners. Such facilities need to be properly planned, designed and constructed so as to ensure boating safety, boat access to public facilities at [Lewiston Landing](#), protection of fish resources, and preservation of the natural erosion protection and scenic features of the shoreline bluffs ([Figure 2](#)).

The southern portion of the shoreline below Cayuga Street is bordered by Artpark and privately owned lands. A public fishing pier, providing limited shore fishing, is located within Artpark. No other in-water or shoreline structures exist in this area. The area is not easily accessible, but like the northern portion of the shoreline, has some potential for development of private docking and mooring facilities by adjacent property owners.

The shoreline between Cayuga and Onondaga Streets is the most accessible portion of the waterfront and contains public and private boat docking facilities. The shoreline is protected by bulkheads. The public docks, a double boat launch, and bulkheading at [Lewiston Landing](#) (north of Center Street) are of recent construction and in excellent condition. The facilities are used year-round for fishing and boat launching. The area to the south of Lewiston Landing presents the best opportunity along the Lewiston shoreline for public and/or private expansion of boat docking facilities. (See the Public Access and Recreation chapter for further description.)

Natural Resources

Geography

The Village of Lewiston lies in the western part of Niagara County at the base of the Niagara Escarpment. It is part of the Iroquois Plain which stretches from the Escarpment to Lake Ontario and covers the entire northern half of Niagara County. The Plain is gently rolling near the Village and varies in elevation from 245 feet above sea level at the Lake to 600 feet at the Escarpment. The Escarpment is composed of mixed sandstones (Whirlpool, Grimsby and Thorold), capped by Lockport Dolomite, while the Iroquois Plain is Queenston Shale which underlies the entire area about 1,200 feet thick. These formations are generally overlain with glacial till and/or sandy, fine-textured soil of moderate to poor drainage characteristics. The Niagara Escarpment and Iroquois Plain are the northernmost geologic features of the region. ([Figure 3](#))

The Niagara Escarpment runs through the southwest portion of the Village of Lewiston and forms a dramatic backdrop to the community. The Escarpment at Lewiston was the original location of Niagara Falls, which eventually receded to its current position six miles to the south. The majority of the Village is built on the flat plain below the Escarpment which falls off toward the Niagara River near the waterfront. Most of the waterfront is bordered by steep bluffs of one hundred feet or more, with the exception of the area at the base of Center Street, known as the Lewiston Landing. Water access at this point has been a historical resource that initiated the formation of the community. Waterfront elevations range from 246.5 feet at the River to 350 feet along the western LWRA boundary and as high as 550 feet at the top of the Escarpment. Soils tend to be deep and moderately well-drained (Lacustrine Sand deposits) in the LWRA and deep, poorly-drained (Rhinebeck/Ovid) in the rest of the Village. Occasional outcroppings of glacial boulders embedded in a shale/red clay mixture occur in the LWRA within Artpark.

The majority of the Village drains to the Niagara River via overland flow and inadequate street ditching. Soils possess generally poor drainage characteristics and are subject to moderate erosion near the waterfront, due to steep slopes and their shale/clay composition. Development within the LWRA is limited by soil composition and best restricted to residential and recreation uses.

Vegetation

Niagara County is in the Oak-Hickory forest biome indigenous to most of Western New York. Characteristic species include Red Maple, Beech, Hemlock, White Oak, Elm, Chestnut, Hickory and a variety of other oaks and hickories. A number of plants that are on the New York State list of protected

species occur in Niagara County and include the showy Calciphilic group found along the Niagara River Gorge. Common species occasionally found in wooded areas or along bluffs include Butterfly-Weed, American Bittersweet, various fern (Buckhorn, Curly-Grass, Maidenhair, Salvinia, Walking-Leak, Woodsia, etc.), Blue-Bottles, Golden-Seal, Lily, Cardinal Flower, Wild Crabapple, Bloodroot and Trillium.

Lewiston is an integral part of county flora groups. However, since the Village is mostly developed, many of the species indigenous to the area are not found and their propagation has been diminished. The only valuable forest areas in the Village coincide with the steep slopes encountered along the Escarpment, waterfront and between First and Third Streets (Onondaga to Cayuga, along inland slope). These areas are mostly unsuitable for urban development and have retained some mature trees and natural vegetation. These slope areas also present the primary land forms within the Village that offer diversity and represent a substantial natural resource in the coastal area.

Fish and Wildlife

Fish: The lower Niagara River is one of the best fishing spots in Western New York, offering year-round game and pan fishing, numerous annual fishing derbies and excellent warmwater/coldwater fisheries. The lower one-mile (near Lake Ontario) is fine spawning for smallmouth bass and panfish (perch, blackbass and smelt in abundance). Significant seasonal game fish include coldwater species (stocked coho, chinook and steelhead salmon; rainbow and brown trout) and warmwater species (northern pike, bass and walleye). The stocked species have had a favorable effect on the sport fishing industry, replacing the blue pike and lake sturgeon which are classified as endangered. Although numerous fish kills have been recorded in Erie and Niagara Counties (NYSDEC, 1970-1976), no significant losses have been noted along the Lower Niagara River.

Lewiston's waters are renowned for local panfish species and contain smelt and perch habitat just north of the boat landing in the Niagara River that is important in attracting game fishing to the area. The nearby river gorge also is one of the best game fishing spots for area anglers. Varieties of perch and smelt are caught on-shore at the Village, while off-shore game fishing makes the landing an active boat launch site, year-round.

Fowl: The Lower Niagara River area is an excellent habitat for many local and migratory birds and waterfowl. The open river (year-round) and steep bluffs offer summer and winter refuge and good feeding conditions for gulls and various waterfowl species. Herring, Ring-billed, Bonaparte' and other gull species are commonly found in abundance in the river gorge and along the lower river area. Wintering waterfowl populations (NYSDEC winter survey, 1970-1976 indicated an average of 2,135 on the Lower Niagara River) include the Black Duck, Mallard, Scaup, Canvasback, Bufflehead, Merganser and other species. These species are continually threatened by up-river pollution that affects both summer and winter waterfowl. The shores of the Niagara River also provide modest habitat for small birds and pheasant. Although the Village is urban in character, many species such as the sparrow and various songbirds occupy the wooded areas in limited numbers. Among the endangered species that may occasionally migrate through the area are the American and Arctic Peregrine Falcon and the Bald Eagle.

Wildlife: The Village of Lewiston contains no significant animal population, although deer, fox and other mammals are known to exist in many parts of Niagara County. Undeveloped lands along the shoreline in the southern part of the LWRA (Artpark) and south of the Village provide refuge for bird and waterfowl and are also likely to contain a variety of indigenous mammals including opossum, raccoon, skunk, chipmunk, squirrel, rabbit, mice, moles and other small animals. The only endangered animal that might occur in the area is the Indiana Bat, known to have existed as isolated individuals in Western New York.

Flooding, Erosion, and Wetlands

The Lewiston shoreline has a very small flood-prone area, as determined by the Federal Emergency Management Agency. The only likely inland area of potential inundation is the gully in Artpark near the south Village line. This is the only portion of the waterfront unprotected by steep slopes along the shore where flood waters can encroach on adjacent property. Major flooding in the Village in past years has been attributed to ice jams in the River that caused ice levels to rise nearly seventy feet over normal water elevations. These events have been significantly reduced by the installation of the ice boom at the mouth of the River in Buffalo. The ice boom successfully limits down river ice accumulation and mitigates flood and erosion damage and keeps the Lower Niagara relatively ice-free most of the year. Flooding of the magnitude described above has not occurred in over 20 years and not since the ice boom has been utilized.

Shoreline erosion has not been significant in Lewiston, but has resulted from two main causes - deterioration of the occasionally exposed shale/clay slopes near the waterfront and ice damage from winter jams. While ice jams have been curtailed by use of the ice boom up river, the demise of local shale to red clay requires stabilization and vegetation cover to retard erosion damage. Any disturbance of slope areas needs to be accompanied by adequate pitching and appropriate tree/ground cover and restoration of exposed slopes, especially near the waterfront.

The Village contains no designated wetlands within its boundaries, based on County surveys by NYSDEC. No significant wet areas are identified.

Climate and Air Quality

Climatic conditions in Lewiston are heavily influenced by the prevailing westerly winds and weather patterns. These typically produce summer circulation systems from the Gulf of Mexico and winter circulation systems from Canada. The proximity of Lakes Erie and Ontario tend to moderate temperature in the area and also increases annual precipitation from additional local air moisture. Local data is collected nearby at the U.S. Weather Bureau Stations in Lockport (440 feet elevation, initiated 1891) and Buffalo Airport (705 feet elevation, initiated 1870). The Lockport station collects temperature, precipitation, wind and snowfall.

Average annual precipitation in Lewiston is twenty-nine inches, which includes an average sixty-five inches of snowfall per year (6.5 equivalent inches of water). Annual snowfall is among the lowest in the region, which increases substantially to the south to a maximum average of 140 inches in southern Erie County. Snow accumulation occurs primarily from December through February and annual thaws in March and April can occasionally create significant runoff in combination with spring storms. Average

annual temperature at Lockport is 47.3 degrees, with a maximum of 103.0 degrees and a minimum of -24.0 degrees having been recorded. Based on data recorded at Buffalo, average annual humidity is 80% at sunrise and 64% in the early afternoon. Cloud cover occurs approximately 47% of the time during the year, with March to October being the predominantly sunny periods.

Air quality in Lewiston is monitored by New York stations in Lockport and Niagara Falls and a Niagara County station in the Village of Lewiston. The Village is in regional classification area Level II for suspended and settleable emission particulates, which comprise the major air quality elements related to public health. Total particulates must not exceed 100 tons per year in accordance with U.S. EPA standards.

Suspended particulates make up the bulk of total particulates and are critical due to their potential respirability and, therefore, harm to health. NYSDEC data reported in April, 1977 indicated that the Lewiston monitor provided an annual geometric mean of 49 $\mu\text{g}/\text{m}^3$ (1975-1976), which is well below the standard of 65 $\mu\text{g}/\text{m}^3$ for Level II classified areas. Nearby monitoring stations active from 1970-1976 demonstrated a continual decline in suspended particulates recorded. Settleable particulates represent dust fall in the air which, although a nuisance, are not as critical to public health. Monitors in 1974 and 1975 (30 day periods) produced annual geometric means of 0.33 $\mu\text{g}/\text{m}^3$ and 0.44 $\mu\text{g}/\text{m}^3$, respectively, which exceeded the standard of 0.40 $\mu\text{g}/\text{m}^3$ in 1975. Combined total particulates have not been known to be exceeded in Lewiston at any time.

Mobile source pollutants are not considered a problem in Lewiston, as most regional monitors do not exceed existing air quality standards and critical levels are mitigated through improved vehicle equipment by 1985. Acid rain presents recurrent problems in the entire region from sources outside the area.

Human/Cultural Resources

The population of the Village of Lewiston is relatively static, having increased only slightly, by 1.0 percent, from 3,292 in 1970 to 3,326 in 1980. A recent projection (September, 1985) by the Erie and Niagara Counties Regional Planning Board (Population Disaggregation for Transportation Purpose) for the year 2010 shows a small rise in population to 3,382, an increase of 1.6 percent over the 1980 population.

Median age in the Village is a relatively high 35.0 years, compared to a County-wide average of 29.0 years in 1980; 656 persons, or 19.7 percent, were 62 or older in 1980. Because of the high concentration of elderly, the number of persons per household, 2.58 in 1980, is lower than the County average. Of the 1,250 households in the Village, 73% were family households (married couples with or without children) and 27% were non-family households.

In 1980, some 50% of the population was in the labor force; unemployment was 7.34% of the labor force. To a considerable extent, a large proportion of the employed, 45.2%, were executive, administrators, managers, professionals or administrative support, included clerical works.

This high concentration of managerial-type personnel is reflected in the median household income of \$21,489 in 1980. Two-worker families accounted for 59.3% of all families, which, combined with the

status of the employed group, helps explain the relatively high household income. As a corollary, owner households had a mean income of \$30,153 while, for the renters, household income was \$18,096 in 1980.

Median educational level was high, 12.0 years. Some 86.2% of all pupils in primary and secondary schools were in public schools. The average number of school children per household was 0.7.

The mean value of owner-occupied units was \$47,859 and median rent was \$291 monthly, in 1980.

Land Uses and Physical Conditions

The Village of Lewiston contains 640 acres, or one square mile. Detailed land use data was collected in 1968 for the Lewiston Master Plan and updated in 1975 from LUNR maps. Categories from these surveys are shown in Table I, and have not substantially changed. Urban uses (residential, commercial and roads) represent nearly 70% of Village development, while public, institutional and recreational uses total over 18%. Useful vacant land (not on steep slopes) is less than 10% of total land and no agricultural uses exist in the Village. The only major land use changes since 1968 have been the development of Artpark and the conversion of an elementary school for a Village Hall at Fourth and Onondaga Streets. Lewiston is considered a stable, established community of predominantly residential character.

Total acreage in the LWRA is 211 acres, which is 33.0% of total Village land. The LWRA (Figure 4) is similar to the Village in land use, but has a higher share of public/institutional uses and lower percentages of urban uses (Table 2). Most of the Village public/institutional space (75.6%) is in the LWRA. While the bulk of this is in Artpark (50 acres), it also includes the Village Hall, Lewiston Landing and wooded areas along the waterfront.

The low roadway percentage of the LWRA relative to the Village (23% of total acreage versus 33% Village-wide) demonstrates the potential access problems that plague the waterfront. The center of the Village's commercial district is located outside of the LWRA toward the eastern end of Center Street, but commercial uses extend along Center Street to the LWRA boundary at Fourth Street. Commercial development in the LWRA is concentrated in the two-block area east of First Street and south of Center Street.

TABLE I - Existing Land Use, Village of Lewiston, New York

Uses	Acres	Percent Total Acres
Residential	200.8 Acres	31.4%
Single-Family	187.9	
Two-Family	6.7	
Multi-Family	6.2	
Commercial	35.2 Acres	5.5%
Retail	29.6	

Uses	Acres	Percent Total Acres
Service	4.4	
Professional Offices	1.2	
Public/Institutional	116.4 Acres	18.2%
Public Buildings	3.2	
Parks/Recreation	97.2	
Churches, Other	15.6	
Open Space (Vacant Woodland)	76.1	11.9%
Streets and Roads	211.5 Acres	33.0%
TOTAL	640.0 Acres	100.0%

TABLE II - Existing LWRA Land Uses, Village of Lewiston, New York

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Open Space (Vacant Woodland)	76.1	11.9%
Streets and Roads	211.5 Acres	33.0%
TOTAL	640.0 Acres	100.0%

The majority of open space/vacant land coincide with steep slopes that are restrictive to construction. The difficult terrain of the LWRA has been, and continues to be, a major factor shaping land uses and development. Most of the shoreline is bordered by very steep, 30-100 foot banks. Another steep slope crosses the waterfront area diagonally from approximately Mohawk Street at the river to the intersection of Seneca and Fourth Streets, causing the breaks in the grid pattern of the streets through this area. While the two blocks along the shoreline between Cayuga and Onondaga Streets to First Street is the most accessible portion of the waterfront from the water and the land (via Center Street), the area is still relatively steep and hilly. Development on the west sides of both First Street and Water Street sits on top of the steep banks which traverse this area.

Lewiston's development began at the foot of Center Street along the narrow band of relatively accessible waterfront which gave the economic incentive for growth. As development spread, it was concentrated on the more suitable flats between the hill at the waterfront and the Niagara Escarpment. This has left the LWRA as mostly residential and public space. It is anticipated that the area along Water Street can be used for concentrated waterfront development to capitalize on the natural attributes of the area and the extensive tourist trade. The principal impediments are the lack of adequate public and private recreational facilities and the lack of visible access between the central area of the Village and the waterfront. While little developable vacant land exists in the Water Street - Center Street area, much of the existing development is underutilized or inappropriate for waterfront activities.

Shoreline Uses and Conditions

This portion of the LWRA comprises the entire shoreline of the Village from First Street to the Niagara River. The shoreline area encompasses 5,630 linear feet, devoted to a variety of public and private uses. Only the 1,190 feet at the end of Center Street is directly accessible and currently useable. Approximately 710 feet of this area (north of Center Street to Onondaga Street) is under public ownership and contains the [Lewiston Landing](#), a new boat launch and docking facility built on the site of the historical landing area.

Lewiston Landing is part of a partially developed Village park, currently referred to as Lewiston Landing Waterfront Park. Current uses of the park are limited to the dock area (west of Water Street) and include fishing, passive recreation (walks, benches), boat launching and occasionally swimming. An abandoned coal silo (1,000+ square feet) stands next to the landing against the bank. Although the launch and bulkhead are new, the silo is deteriorated, detracting from the attractiveness of the area. The top of the bank to Water Street is also publicly-owned and used for roadside parking for trailered and non-trailered vehicles.

The adjacent block east of Water Street is also largely publicly-owned. The Village's Department of Public Works garage, abandoned sewage treatment plant, pump station, and storage building occupy most of the block. Two residences are located in the northeastern corner of the block. Existing plans call for this block to be developed as part of the Lewiston Landing Waterfront Park (see below, Public Access and Recreation).

Immediately south of Center Street is a private marina, set on finger docks along 460 feet of wooden bulkhead. This is the only water-dependent use located in the Village aside from the Lewiston Landing

boat launch and dock and the Artpark fishing pier. About 30+ boat slips are available and boats are repaired and stored along the waterfront. Access is provided via a marginal gravel road at the end of Center Street which is posted private. A few deteriorated buildings exist and the entire area lacks attractiveness.

The marina property is leased to the current operator by the owners of the Riverside Inn, which is located at the top of the bank on the east side of Water Street. Originally a waterfront hotel built in 1870 to take advantage of lake travel and tourism, the Riverside Inn is now a fine restaurant and a locally identified historic site. While in generally good condition, the building needs some exterior work and its setting would benefit from improved landscaping. Commercial, water-enhanced uses extend into the block to the west of Water Street and south of Center Street. Uses included: a motel in fair condition; the Village Inn, a popular tavern and locally identified historic site; a private parking lot that accommodates area patrons; and a few residences fronting on First Street.

Because of its proximity to the Lewiston Landing Waterfront Park and its accessibility, this two-block area is critical to realizing the full potential of the Village's waterfront area. Although development is limited by the hilly topography, developable land is not utilized to best advantage. Given the Village's existing and planned investment in the park and the growing interest in waterfront property throughout this region, it is reasonable to assume that private investment will be attracted to the area. While such investment should be encouraged, development should be planned to physically and visually complement the Lewiston Landing Waterfront Park, to extend public access, to preserve and upgrade the existing marina facilities, and to provide commercial services which support recreational uses and tourism. These objectives may be best accomplished through some form of cooperative, public-private efforts.

North and south of the two-block boat launch and dock area are residential units or undevelopable banks. North of Onondaga Street are ten single-family units, one of which is in deteriorated condition. Immediately north and controlled by the Village is the Oneida Street right-of-way. Beyond the right-of-way, the steep river bank makes construction exceedingly difficult. Water Street is the only access, dead-ending 475 feet north of Onondaga Street. Nevertheless, there is some potential for development in this area, as demonstrated by past proposals to develop townhouse condominiums. North of Mohawk Street is the Niagara Frontier Bible Institute, which is well-maintained, extends eastward to Second Street and includes a locally identified historic site known as DeChantal Hall. Although the property has the potential for conversion to higher density uses, the Bible Institute is expected to maintain its facilities here for the foreseeable future.

The shoreline area south of the Cayuga Street right-of-way is also occupied by residential uses. Approximately twenty single family residences are located along First Street and a few multiple units are located on Guard Street. About two-thirds of the residences on First Street need minor improvements, which would improve the attractiveness of the shoreline. These range from simple painting to exterior repairs and landscaping. South of the Guard Street development, the shoreline area is within Artpark, which is controlled by the Niagara Frontier Parks Commission (see below, Public Access and Recreation, for further description).

Table 3 summarizes the uses and conditions along the shoreline. Figure 5 summarizes the LWRA Land Resources.

TABLE 3-Waterfront Use Inventory, Village of Lewiston, New York

Waterfront Section Shoreline:	Land Use	Square Footage	General Condition	In-Water Structure
North Village Line to Onondaga Street	Residential(10)/1	15,200	Good	
Onondaga Street to Center Street	Municipal (3) Residential(10)/-2	8,200 6,350	Fair-Poor Poor	Bulkhead Public Launch
Center Street to Cayuga Street	Marina (5) Commercial (3)	1,200 8,100	Poor Good	Private Finger Docks
Cayuga Street to Artpark	Residential (21)	32,500	Fair-Poor	
Artpark/ South Village Line	Park/Open Space		Excellent	Fishing Pier
Total = 71,550				
/-1 Numbers in parentheses are total structures				
/-2 Located upland between First and Second Streets				

Upland Uses and Conditions

The area east of First Street is occupied primarily by medium density single-family residences. Notable exceptions are the Village Hall (public-institutional) and adjacent playground (recreation), located between Onondaga and Ridge Streets and Fourth and Second Streets; small businesses, shops and offices; bed and breakfasts; a hotel/spa; and Artpark (recreation). Neighborhood business uses and mixed business/residential uses are allowed along both sides of Center Street between Fourth and First Streets. The Onondaga Trail follows the Onondaga Street right-of-way from the intersection of Second and Onondaga Streets down the hill to First Street, and provides a pedestrian connection and open space link to Lewiston Landing.

The Village realized linking the waterfront area to the Village's Center Street commercial district to the east, and in 2003, extended the RB-2 Retail Business Zoning District on Center Street from Fourth Street to First Street. The rezoning allows small retail shops, business offices (when such use is combined with retail business and personal service establishments), and bed & breakfasts (when such use is a secondary use of the premises), and establishes better continuity between the upland commercial area and the waterfront – while remaining complementary to residential uses. These facilities are compatible with residential uses, and provide additional accommodations for visitors to the Lewiston area.

Additional opportunities for establishing better linkages are discussed below under Public Access and Recreation.

Waterfront Revitalization Target Area

Opportunities for enhancing the use of the Village's waterfront focused on the four block area west of First Street between Onondaga and Cayuga streets; therefore, the Village's revitalization efforts should

also be concentrated on this "target area". The area is accessible from both the land and water, one of the few such sites along the Niagara River below Niagara Falls. The Village has already made a substantial public investment in the area in the construction of the new Lewiston Landing boat launch and docks. Use of these facilities by residents and visitors for boating and fishing can be expected to increase. Completion of the upland portion of the Lewiston Landing Waterfront Park would increase the recreational uses of the area and improve the area's attractiveness, thereby encouraging further improvement and expansion of private recreation and related commercial uses in the two block area south of Center Street. This private development would, then, directly increase the contribution of the area to the Village's economy and tax base. The increased use and amenities of the area would also be expected to benefit businesses throughout the Village. Increased use and development in this area, however, must be carefully planned and designed, so as to be compatible with surrounding residential uses and ensure the preservation of important natural and scenic resources. [Figure 5](#) shows the Waterfront Revitalization Target Area, as well as other significant land resources of the waterfront area.

Zoning

The Village is fully zoned and contains a range of residential and commercial categories ([Figure 6](#)). Commercial zoning is concentrated along Center and Portage Streets and residential and open space districts occupy the rest of the community. Similarly, the LWRA is predominantly residential and open space.

The principal residential class is R-1a providing for medium-density, single-family residences on 6,500 square foot lots. This runs up to the shoreline north and south of Lewiston Landing. The W-D Waterfront Development District was adopted by the Village in 1989, with amendments in 1990 and 1991, to ensure that lands along the waterfront be used for water-dependent, water-enhanced and other related activities. The W-D Waterfront Development District along both sides of North Water Street, generally south of Center Street, allows a mix of water-dependent and water-enhanced commercial and recreational uses. The O-P Open and Public District preserves and enhances publicly owned open spaces and recreational areas. Open space zoning includes Lewiston Landing and adjacent area to the east, Artpark, and identified linkages up the hill to Center Street and the Village Hall on Fourth. In 2003, the Village extended the RB-2 (Retail Business) District along Center Street, from Fourth to First Street, to promote and enhance the continuity of use as a retail shopping area – allowing for the development of retail business and personal service establishments, and complimentary waterfront uses subject to a special use permit, such as bed & breakfasts (when such use is a secondary use of the premises) and other overnight accommodations.

Rezoning of properties on North First Street and North Second Street, between Center and Onondaga Streets, from R-1A (Residential Single Family Medium Density) to R-5 (Residential Townhouse) occurred in 2003. The R-5 Residential Townhouse District allows the development of townhouse dwellings (requires a special use permit), and creates a transition from the Retail Business to the Waterfront Development District. See [Figure 6 – Existing Zoning](#)

Historical/Archaeological Resources

The Village of Lewiston has been referred to as "the most historic square mile in America". The vestiges of Lewiston's history still remain in many parts of the Village and provide a substantial resource of local and national importance. Center Street is the location of the old Lewiston Trail which traversed the ridge of pre-historic Lake Iroquois. This became a primary location for early structures, since 1800's goods arriving at the Center Street Locks had to be portaged up the hill to Fourth Street and move along Center Street to other destinations. [Figure 7](#) identifies the major sites of local and national historic significance in or adjacent to the LWRA. Many more interesting, older (but not designated) structures exist along Center Street, Plain Street and Ridge Street.

The following three sites are listed on the National Register of Historic Places as compiled by the U.S. Department of Interior, Heritage Conservation and Recreation Services:

- **Frontier House** at 460 Center Street (Registry No. PH0040118; 7/8/84) - built in 1824 by Benjamin Barton, it was known as the finest hotel west of Albany and hosted many famous guests; it is well preserved today as a restaurant and museum (restored in 1964).
- **Lewiston Portage Landing Site** in Artpark (registry No. Ph0040134; 7/18/74) - original site of early trade access to the Niagara Frontier and the Niagara Portage (approximately 1626).
- **Lewiston Mound** at Artpark (Registry No. PH0040126; 7/26/74) - early Indian burial site, carbon dated to 160 A.D. and site of pre-historic mammoth/mastodon finds.

The other sites shown on [Figure 7](#) have been identified by the Village Historic Preservation Commission as locally important sites. Barton Hill and the Fairbanks House, two homes at the top of the hill at Center Street, were built by prominent community leaders. About 1815 Barton Hill was the site of American gun placements during the War of 1812 and bears a State of New York historical marker commemorating the Battle of Queenston Heights, October 1812 (placed 1901). Both are well-maintained, attractive properties.

Angler's Retreat (now the Riverside Inn), DeChantal Hall (now the Niagara Frontier Bible School), and the Village Inn are also notable historic buildings located in the waterfront area. Used for non-residential purposes, they are in good condition. The site of the original steamboat docks is also identified on [Figure 7](#) because of the dock's historical association with the Village's development. None of the original structures remain, however.

Adjacent to the waterfront area, the Village Historic Preservation Commission has identified a historic area that encompasses Center, Plain and Cayuga Streets from Fourth Street to Fifth Street. St. Peter's Church and the Tiffany Shop, shown on [Figure 7](#), are two significant contributing buildings located in this area.

While the structures in this area have been subjected to enough modification to reduce their potential for designation as a national district, they still offer a complement to nearby LWRA activities.

Public Access and Recreation

The lower Niagara River is a major recreation area for sport fishing and boating, attracting thousands to the area annually. The 1983 Fisheries Development Plan for Niagara County documented the dramatic growth and impact of sport fishing in the area (Niagara County Department of Economic Development and Planning, 1984). It indicated a rise in fishing demand of nearly four-fold (\$2.6 million revenues to over \$10 million annually) by 1985 and the need for improvement in boating and fishing facilities to accommodate current and anticipated demand.

At present, there are few public facilities along the lower Niagara River providing access for fishing and boating. Boat launches exist at Fort Niagara (public ramp at the mouth of the river), Youngstown (a small natural harbor near the mouth of the river), and Lewiston (double-wide public ramp). The Village of Lewiston's facility is the only up-river boat launch providing access to game fishing in the river gorge and offering virtually year-round sheltered river access. On-shore fishing opportunities exist at the above locations plus at the fishing pier in Artpark and at the Joseph Davis State Park (about mid-way between Lewiston and the river mouth).

The Village's boat launch is part of the planned Lewiston Landing Park, which was created in 1976 when, with funds from the NYS Division of Housing and Community Renewal, the Village purchased 2.25 acres of riverfront property. Together with other Village-owned land, this created an eight-acre site, suitable for development as a water-related park and recreation facility. In 1980, initial design work was completed with a grant from the National Endowment for the Arts. Since then, construction has been completed on a new dock and double-wide (20 foot) boat launch, a shoreline retaining wall with a walkway on top, boat slips to accommodate 14-20 medium-sized boats, handicapped parking, and landscaping which includes plantings specially selected to control erosion caused by run-off. The boat launch, which was opened in 1983, is used almost year-round and is heavily used during the prime boating and fishing seasons.

Work which remains to be done would extend the park to First Street between Onondaga Street and Center Street, providing additional facilities for year-round recreational pursuits, improving circulation and access, and creating an attractive setting for the boat launch and dock. Most of the existing structures occupying the site, which are in fair to poor condition, would have to be demolished. This requires relocating the DPW garage to a new facility and making alternative arrangements for handling the sewer overflow currently diverted to the old sewer treatment plant. Only the abandoned coal silo and the new pump station would be retained as part of the park.

Completion of the park would provide needed support facilities for users of the existing boating and fishing facilities, increase the opportunities for recreational use of the waterfront area by adding facilities for other recreational activities (e.g., picnicking and ice skating), and generally accomplish the redevelopment of an underutilized and unattractive, yet critical, waterfront site. The Village is committed to implementing the second phase of the park's development and is actively pursuing sources of funding.

The only other existing public recreation facility in the Village of Lewiston, which has access to the Niagara River, is Artpark. Artpark was developed by the State of New York on lands owned by PASNY. It

is also partially located in the Town of Lewiston, although its major facilities and entrances are located within the Village. Artpark is intended primarily to be a cultural, educational, and passive recreation resource for residents of, and visitors to, the State. Facilities include a performing arts center, amphitheater, and support facilities. Facilities also include a fishing pier, as previously noted, and nature trails. Artpark's location on a steep slope descending from the Niagara Escarpment affords excellent views of the river area. Artpark is also a sensitive archeological area and includes two nationally designated historic sites, the Lewiston Indian Burial Mound and the Lewiston Portage Landing Site. Over 250,000 people are estimated to visit Artpark each year.

The development of Artpark has helped to attract significant numbers of visitors to the Lewiston area and has benefitted local businesses and governments. It is expected that the performing and visual arts will continue to be the emphasis of programming for Artpark. There are additional opportunities, however, for cooperative efforts which could support the Village's waterfront revitalization efforts, as well as the recreational use of Artpark. Activities are programmed at Artpark only from Memorial Day to Labor Day. Although the grounds are open year round, facilities are closed and off-season use is limited. In addition, there is currently little joint promotion of facilities and activities and little physical connection between Artpark and the Village's central waterfront area, although both the State and Village have expressed interest in better coordination. There are several low-cost opportunities for coordinating Artpark's facilities and activities with the Village's waterfront development projects which would enhance the use of and benefits derived from both. One of the best of these opportunities is to develop self-guided walking tours (for example, from Artpark along First Street to the Lewiston Landing Waterfront Park), connecting the historical, scenic, and recreational points of interest in Artpark and the Village.

Route 18F through Lewiston, designated as part of the Seaway Trail, is a major scenic route for tourists travelling along the lower Niagara River and is a substantial source of tourism activity in the Village. This route forms the eastern boundary of the LWRA, but does not directly access the waterfront, nor is the waterfront visible from it because of the steep slopes. Better signage and/or visible linkage is needed to better capitalize on existing tourist activity and attract potential users to new recreation and recreation-related facilities on the waterfront. Center Street and Onondaga Street (for pedestrian access) seem to offer the best opportunities for providing this linkage.

Center Street provides the only direct vehicular access to the shoreline and is marked at Fourth Street by a gateway-like entrance for Lewiston Landing. The entrance marker, however, could benefit from improved landscaping and lighting and the addition of a motif more clearly indicating that Lewiston Landing is on the riverfront. The Lewiston Businessman's and Professional Association recently has had an attractive waterfront logo designed and has installed visitor-oriented signs using this logo. This has helped considerably to provide useful linkages between the Lewiston Landing area and the major transportation routes through the Village and should improve access to the waterfront area.

The Onondaga Street right-of-way between First and Second Streets, which is undeveloped because of the steep slope, is currently used as a pedestrian pathway. This pathway, which provides access from the Village Hall and adjacent playground at Onondaga and Second Streets to the Lewiston Landing and

the area proposed for park development, could be developed to provide a defined open-space connection and an easier to use pedestrian access way between the two park areas.

Other publicly-owned lands in the LWRA consist primarily of other paper street right-of-ways and street-ends. Since the street-ends extend to the river, they possess some potential for increasing shore-line access, which is severely restricted by the steep banks lining the shoreline, with the exception of the two-block area from Onondaga to Cayuga streets. The street-ends are open to public use and the Village Board has recently taken the position of retaining all street-ends in public ownership and discontinuing the past practice of leasing select locations to private groups; however, surrounding residential uses and extremely difficult physical characteristics mitigate against developing most of the street-ends for public access or recreation purposes. This is not the case for the Onondaga, Center, and Cayuga street-ends, which have the potential to be integrated into the redevelopment of the central riverfront area for recreation and recreation-related uses.

Table 4 below summarizes the ownership and accessibility characteristics of shoreline property (that is, property adjacent to the Niagara River).

TABLE IV - Shoreline Ownership and Accessibility, Village of Lewiston, New York

Ownership	Location	Footage	Percent	Accessibility
Public (Local and State Gov't)	Lewiston Landing and Street Ends	1,210 Feet	21.5%	Open
Artpark	South Waterfront	1,150	20.4	Limited Season
Private	Marina at Center Street Private Residences	2,750	48.	Closed
Institutional (Private)	North Waterfront	520	9.2	Closed

Visual / Aesthetic Resources

The Village has some dramatic visual resources that should be preserved as crucial components of waterfront development. These primarily include the Niagara Gorge with its steep bluffs and turbulent waters, and the Niagara Escarpment which is heavily wooded and represents a unique natural land form in the area. There are also steep wooded banks along the shoreline and scenic river vistas that are part of the local attraction to the Village.

Probably the most outstanding vista in Niagara County (other than Niagara Falls) is the panorama available from the Robert Moses Parkway in the southeast corner of the Village, along with the Escarpment. This location provides an unobstructed view of the Village, lower river, Canada and Lake Ontario beyond. The City of Toronto across Lake Ontario is visible on clear days and nights. While only available to motorists and residents of Lewiston Heights atop the Escarpment, it offers breath-taking scale and an overall perspective of the Village atmosphere characteristic of Lewiston. This is a better promotion than any sign or advertisement and should not be compromised by future development. The

opportunities for safely viewing this scene from the Robert Moses Parkway could be improved by providing a scenic overlook off both sides of the parkway above Artpark.

Another excellent land-side vantage point is the intersection of Center and Fourth Streets. To the south is a vista of the Lewiston-Queenston Bridge set against the bluffs of the Niagara Gorge and to the west is a view of Queenston Heights in Canada as it appeared to the American forces during the War of 1812. A more extensive vista of the Niagara Gorge is visible from the shoreline in Artpark. Visitors to the area are continually subjected to excellent views along the river (bluffs, power-house, bridge etc.), due to Artpark's open character and this opportunity could be further developed with viewing areas and access trails.

Many local views are afforded within Lewiston, due to the vantage points created by the slopes near the river. Two ridges, one along the shoreline and one along Third Street (Onondaga to Cayuga), provide views of the river and development below. Most of the land is residential and limited in access; however, the Village park/playground at Third and Onondaga Streets (behind Village Hall) is well located to take advantage of this local vista and could be further developed to capitalize on its visual potential.

The in-water aesthetics of the shoreline is, again, quite dramatic, in that an observer on the river can see either the Niagara Gorge with its bluffs or the wooded slopes of the Village rising from the river to the Escarpment. Currently, however, the poor condition of some properties near the Lewiston Landing detracts from both the land-side and in-water views of the waterfront.

This area, which is the most accessible portion of the shoreline, presents an abandoned silo, municipal garage and deteriorating marina as the focal point of the Village waterfront view. These need extensive structural and landscaping improvements to be attractive to area visitors and encourage usage of the waterfront. In addition, new development in this area should be carefully sited to improve the visual qualities of the waterfront and preserve the vistas available from higher elevations within the Village. Wooded areas should be preserved to provide aesthetic appeal to the shoreline and soften the character of nearby urban development.

Community Services/Infrastructure

Transportation

The Village of Lewiston has excellent highway access to nearby cities via the Robert Moses Parkway (limited-access expressway to Niagara Falls and Buffalo via I-190) and N.Y. Route 104 (Ridge Road to Lockport). These two arterials interchange at the Village line and exit onto Center Street (Route 104 extended). Center Street is the major east-west highway in the Village, is the center of community activity, and links the Robert Moses Parkway on the east and the Lewiston Landing at the waterfront on the west and contains the majority of all commercial development in the Village. Center Street is also part of Route 18F, the designated New York State Seaway Trail. Following Center, Fourth, Oneida and Second Streets, Route 18F attracts numerous tourists annually to the scenic Niagara River drive between Lewiston and Lake Ontario.

Internal circulation within the Village is accommodated by six collector streets to residential uses and community generators. Mohawk and Cayuga Streets provide additional east-west circulation, while Fourth, Fifth, Eighth and Portage Streets provide north-south circulation and access to major land uses. Portage and Fourth Streets are the entrances to Artpark and are heavily utilized by theater patrons and tourists throughout the season. Village streets occupy 211 acres of land and comprise 33 percent of total land use. The Village is laid out in a grid pattern and land is fully accessible by local streets. Principal traffic generators include Artpark, commercial development along Center Street, and the boat launch at the landing on the waterfront ([Figure 8](#)).

The circulation system is in good condition with pavement adequate for traffic conditions. However, Center Street is the only road with sidewalks and others have substantial shoulder and drainage problems. Some residential streets have been installed in the past to open up large blocks and these are quite narrow (Ridge, Plain, Niagara, Page, Fairchild, etc.). Since road drainage also handles adjacent land uses, improvements are needed to create a Village drain relief system.

Public transit services exist from Niagara Falls to Lewiston via regularly scheduled bus service. The route follows Lewiston Road and Center Street and loops around Fourth Street to link the Village with Mount St. Mary's Hospital, Niagara University and other regional bus routes. There is no rail service in Lewiston, although regular Amtrak service exists out of Niagara Falls.

Parking

Public parking in the LWRA is at a premium, especially near the landing and boat launch. Only eight to ten spaces exist on the landing, while approximately 75 to 100 spaces are designated on Water Street (including a private, gravel parking lot), some for trailers. This promotes some conflicts between parking and vehicular access on Water Street and taxes on-street residential parking on adjacent streets during seasonal uses. Other public spaces exist at the Village Hall on Fourth and Onondaga Streets (20 to 30 spaces) and numerous spaces at Artpark ([Figure 8](#)). However, neither of these is adequately linked to the prime waterfront area (Lewiston Landing) and offer only marginal use at this time. Facilities at Artpark are currently inadequate during performances, as extensive overflow is encountered on Village streets. Future improvements in waterfront activities and access will depend on adequate parking increases proximate to new development.

Water Distribution/Supply

Until the Spring of 1983, the entire Village of Lewiston received its potable water supply from two services - the City of Niagara Falls and the Niagara County Water Authority. Due to supply and distribution difficulties experienced by the City, all potable water is now supplied by the County Water Authority. The Village's residential and commercial users consume an average of 360,000 gallons per day and public water is available to all residences and commercial establishments.

The Village of Lewiston owns and maintains all distribution lines within its corporate boundary. Supply and distribution has been adequate to meet demand. Water supplied to the Village is metered daily for billing purposes and to monitor system loss. The area within the coastal zone is serviced by a complete

distribution system (Figure 9). The system is generally adequate to support future development at prevalent densities. The Village performs routine line maintenance and replacement as required.

Wastewater Collection and Treatment

The Village of Lewiston, including the area within the coastal boundary is completely serviced by a separate wastewater collection system. All residential and commercial establishments are serviced. The total Village system consists of approximately 77,000 linear feet of sewer. The sanitary sewer system within the coastal boundary consists primarily of vitrified tile, gravity sewer, and ranges from thirty to fifty years old (Figure 10). All wastewater flows generated in the coastal area are tributary to a pump station and pumped over the Escarpment to a metering pit prior to connection to the Town of Lewiston's sewer system. Until early 1981, the Village of Lewiston treated its sewage at a primary treatment facility located at the Department of Public Works facilities. Treated sewage was discharged directly into the Niagara River. In 1981, the Village terminated treatment at its facility and began conveying all wastewater flows generated in the Village to the Town of Lewiston for treatment. The Village is included in the Lewiston Master Sewer Improvement Area (LMSIA), which includes the Towns of Lewiston and Porter and Village of Youngstown.

The Village of Lewiston's participation in the LMSIA required termination of treatment at their existing facility with the addition of a new pump station and interceptor sewer to convey wastes to the Town's system. The Village no longer operates its wastewater treatment plant. In the early stages of the operation of the LMSIA, the Village used their treatment plant as an overflow structure when the Town's treatment facility experienced excessive flows.

With improved wastewater treatment plant operations and sewer improvements throughout the district, overflows have been essentially eliminated. The Village no longer utilizes their former treatment facility and it is scheduled for demolition in the future. Any subsequent development must provide adequate access and land for a pump station. Overflow storage, if needed, is planned for inclusion with the new public works garage in the Village.

Conveyance of Village wastewater flows to the Town facility has resulted in two positive impacts in the coastal area. First, effluent quality from the Town's facility is substantially improved over the Village's old facility, resulting in improved overall water quality. Second, with the eventual demolition of the former treatment plant, additional land area will be available for Village use.

The sanitary sewer system is a vital part of the coastal areas' infrastructure. The existing system has the capacity to support present and future development. The Village supports a continual and rigorous system maintenance and rehabilitation to ensure system efficiency. All wastewater collection system additions and improvements are designed and constructed in accordance with "10 States Standards", Niagara County Health Department, and NYSDEC Standards.

Storm sewer system

Stormwater drainage within the Village of Lewiston, including the area within the coastal zone boundary, is accomplished through a system of closed conduits, open ditches, and generalized overland run-off. The stormwater collection system is a separate system with no known cross connections to the

sanitary sewer system. Because of the relatively steep slopes in the coastal area, localized flooding and ponding is not prevalent. There are at least two known locations where stormwater conduits discharge directly to the Niagara River. The Village Public Works Department maintains all roadside ditches and will install drainage piping at the request of residents and businesses for a nominal fee. The closed piping is installed in rights-of-way where landowners prefer piping over open ditching.

One problem in the coastal area caused by uncontrolled overland run-off is bank erosion at various locations. Through structural modifications and improved management practices, this problem can be alleviated. However, further detailed study of existing drainage is needed to determine more specifically the best methods for improving the drainage system. All major drainage improvements are designed according to the Stormwater Design Manual published by the Erie-Niagara Regional Planning Board, which are generally based on ten-year storm.

Community Services

Health services are concentrated in Mount St. Mary's, a Catholic hospital located in the Town of Lewiston. Other nearby hospital facilities are in Niagara Falls, about six miles south of the Village.

The Village has its own Police Department, while the Village and the Town share costs for the Volunteer Fire Company, Lewiston Fire Company No. 1. The Village pays on a contractual basis for the costs of operating the Fire Company and also pays for insurance for the Fire Company.

Solid Waste Management

Solid Waste collection is the responsibility of the Village of Lewiston. The Department of Public Works collects both municipal and resident debris and garbage. No burning is allowed in the Village. All waste is disposed of at the Model Cities facilities in the Town of Lewiston under private contract. The contract contains no disposal restrictions and the facility possesses sufficient capacity for current and anticipated Village needs.

Hazardous Waste Site

The New York State Department of Environmental Conservation has indicated that the Stauffer Chemical-ArtPark Site is within the Village of Lewiston coastal area. The inactive hazardous waste disposal site (Site Code #932049) is a landfill of approximately one acre located off of 4th Street in Artpark and was used for waste disposal from 1953 to 1969. An unknown quantity of asbestos, graphite, cinders, reactor bindings, scrap sulphur and metal, and silicon, zirconium and titanium oxides were disposed of at this site (NYS DEC Inactive Hazardous Waste Disposal Report, P. 9-397). Most the wastes had been covered by 1979, and soil samples collected in 1982 by the USGS indicated the presence of organic compounds of 20 parts per billion (ppb) for soil and one ppb for water. A State Superfund Phase investigation has been completed by the Niagara County Health Department and the US EPA, and this indicated heavy metal and organic contaminants in soil and surface water.

Fiscal Resources

For 1983-84, the Village's total budget was \$1,375,133, of which property tax payments were \$267,329. Total assessed or full value (properties in Niagara County went on a full value basis for 1983-84) was

\$70,349,707. The tax rate was \$3.80 per \$1,000 of full value for 1983-84, or \$190 for an average \$50,000 home.

The Village had adequate taxing power for the 1983-84 fiscal year. Taxing power was \$1,019,012, while the tax levy was \$267,329; the constitutional tax margin was \$751,683.

In terms of debt limit, the Village can borrow up to seven percent of five-year average full value, or about \$3,100,000. As of June 1, 1983, outstanding debt was \$311,550 or 10.0 percent of the debt limit. Based on an opinion by the State Comptroller on January 26, 1983, \$800,000 of Bond Anticipation Notes for Sanitary Sewers were excluded from the debt limit.