

3.2 Understanding the Land Base

The purpose of the land base analysis is to better understand the environmental conditions of the area, identify barriers and opportunities to redevelopment, clarify the regulatory framework governing the site, and identify assets and opportunities that can leverage further private and public investment in the BOA. Maps 3 to 24 are located at the end of section 3.2. See Appendix A for a more in-depth discussion of the Land Base Inventory and Analysis.

3.2.1 Location of Study Area

The South Buffalo BOA study area is approximately 1,900-acres, making it the largest BOA to receive funding in the State of New York. The BOA is located in the southwest portion of the City of Buffalo, Erie County, in the western region of New York. The South Buffalo BOA represents the portion of the City having the largest geographic concentration of former heavy industries. The BOA is bounded by NYS Route 5 to the west, Hopkins Street and South Park Avenue to the east, the Buffalo River to the north and the City of Buffalo-City of Lackawanna municipal boundary to the south. Lake Erie is located to the immediate west of the BOA, directly across NYS Route 5.

The BOA's surrounding neighborhoods include the Old First Ward to the north, the City of Lackawanna including the New Village Industrial Park and CSX Intermodal rail yard to the south, the NYS Route 5 corridor and Buffalo's Outer Harbor to the west, and the primarily residential neighborhoods of South Buffalo to the east.

Key Findings

At 1,900 acres the South Buffalo BOA represents a tremendous opportunity to renew the South Buffalo Community and the City of Buffalo. Located along two waterfronts and at the intersection of several international transportation corridors, the BOA is a valuable resource that managed strategically could transform into a regional economic and recreational center.

3.2.2 Land Use Pattern

The BOA and adjacent areas are categorized by a mix of land uses, including existing light and heavy industrial, rail yard, closed landfills, scrap yard, commercial, residential, natural heritage, and park and open space uses, in addition to vacant, abandoned (unoccupied) and /or underutilized sites that formerly served heavy steel manufacturing industries. Currently, the predominant land use within the BOA is vacant undeveloped lands. *Table 3.8* summarizes the scale of each existing land use within the BOA.

As illustrated in *Map 3 - Existing Land Use* the BOA is bisected north to south by an active rail corridor. Uses to the west of the rail corridor include light industrial within Lakeside Commerce Park, and nature conservation uses within the Tifft Nature Preserve. This area also includes the George J. Hartman Playfields to the immediate south of the Tifft Nature Preserve and a new park adjacent to the Union Ship Canal within Lakeside Commerce Park. A closed landfill occupies approximately 52 acres within the 233-acre Tifft Nature Preserve.

Table 3.8 South Buffalo Existing Land Use

| Land Use | Acreage in BOA | Total Parcels |
|------------------------------|-------------------|--------------------|
| Residential | 46 acres | 410 parcels |
| Commercial | 125 | 69 |
| Industrial | 176 acre | 40 parcels |
| Institutional | 2 acres | 2 parcels |
| Public Services/Utilities | 34 acres | 7 parcels |
| Parks & Open Spaces | 393 acres | 9 parcels |
| Rail Corridors | 270 acres | 55 parcels |
| Road ROW | 92 | n.a. |
| Vacant Land -Publicly owned | 349 acres | 144 parcels |
| Vacant Land -Privately owned | 271 acres | 154 parcels |
| Closed Landfills | 188 | 15 |
| Total | 1946 acres | 905 parcels |

Uses to the east of the rail corridor include the abandoned grain elevators on the Buffalo River, active light and heavy industrial and warehousing along the Tiftt Street and Hopkins Street corridors, and vacant industrial lands. These areas offer significant opportunities for redevelopment. To the immediate west of South Park Avenue near Hopkins Street are a cluster of landfills, junkyards, and limited commercial uses. These areas are more challenging opportunities for redevelopment.

The Hickory Woods residential neighborhood and other limited residential areas along Hopkins Street from the western edge of the South Buffalo community. South Park and the Botanical Gardens anchor the BOA to the southeast. Both South Park and the Botanical Gardens form part of the Cazenovia Park-South Park System of Olmsted Park and Parkways, and are listed on the State and National Registers of Historic Places. Viable commercial and light industrial operations continue along South Park Avenue and some of the side streets in the southeast portion of the BOA.

Key Findings

The South Buffalo BOA land use pattern reveals both great opportunities and great challenges. The open space network - a rich collection of park space, waterfront and nature preserve, is a critical asset that should be strengthened and leveraged. Further, the over 600 acres of vacant and underutilized land, much of it in public ownership, demonstrates the scale of the opportunity to re-shape and re-brand the BOA area. Nonetheless, the land use pattern also reveals a pattern of lower value uses. Moving forward, the challenge is for the City of Buffalo to strategically make best use of the BOA’s assets, determine what uses are acceptable in the BOA, and decide how and where new, potentially catalytic, uses should be sited.

3.2.3 Existing Land Use Controls

Land use in the BOA is governed by a layer of development controls, including regulatory land use restrictions, special review districts, urban design review frameworks, a heritage conservation framework, and City-wide policies and programs. *Map 4 - Existing Zoning Districts* illustrates the layers of zoning controls in the BOA and surrounding area. Development controls in the BOA include:

Zoning

Zoning regulations in the City of Buffalo, in part, regulate the height and bulk of buildings, the portion of a lot area that may be occupied, the area of yards, courts and other open spaces, and the location of trades, industries and other buildings designed for specified uses. Of the approximately 1,946 acres of gross area of the BOA (including roads), the majority, approximately 1,666 acres, is zoned industrial, including M1 Light Industrial (124 acres), M2 General Industrial (299 acres), and M3 Heavy Industrial (1,243 acres).

In contrast, the east edge of the BOA includes a variety of zoning districts, reflecting the mixed-use nature of the area. The Hickory Woods/Abby Street area and the area clustered north of South Park and west of South Park Avenue (250 acres) are zoned R2 Two Family Districts. Of the 250 acres zoned R2, municipal parkland, South Park and Botanical Gardens represent 160 acres. A relatively small area to the northeast of South Park is zoned CM General Commercial District (22 acres). The area along South Park Avenue is zoned C2 Community Business District (8 acres).

Buffalo Coastal Special Review District

The Buffalo Coastal Special Review District was instituted to protect the lakefront and riverfront from inconsistent uses as well as uses that are unrelated to the coastal area. The district encompasses a majority of the BOA, and includes areas west of Hopkins Street, north of the City of Buffalo-City of Lackawanna municipal line, and south of the Buffalo River. Restricted use permits are required to establish or extend a use within the district.

Within the Buffalo Coastal Special Review District, the Buffalo River Open Space Corridor requires new development along the river that is not water-dependent to be set back 100 feet from the shoreline. New development that is water-dependent is permitted within the 100-foot setback.

South Park Special Zoning District

The South Park Special Zoning District includes all properties fronting South Park Avenue originating at the intersection of South Park and Bailey Avenue to the north, and extending to the City of Buffalo-City of Lackawanna municipal line at the intersection of Dorrance Avenue to the south. Requirements of the South Park Special Zoning District apply to the portion of South Park Avenue located within the BOA. Per the restrictions of the special zoning district, select uses require a special use permit to locate in this zone.

Local Waterfront Revitalization Program

In 2005, the City of Buffalo completed a Draft LWRP, which was submitted to the New York State Department of State (NYSDOS) for review, comment and approval. The Draft LWRP was subsequently revised in January 2007 and is pending adoption by the City of Buffalo Common Council. The Local Waterfront Revitalization Area (LWRA) includes two sub-areas located in the BOA, as identified in *Map 5 - Local Waterfront Revitalization Program Sub-Areas*. Once approved, actions to be undertaken, funded or permitted within the LWRA - which includes the Tifft Nature Preserve, Buffalo Lakeside Commerce Park/Union Ship Canal and the area between the Buffalo River and abandoned railroad corridor on the Riverbend property - must be reviewed for consistency with the policies of the LWRP. Through the pending Waterfront Consistency Law, the City will have the legal mechanism to review direct and indirect actions within the defined LWRA.

The LWRP proposes several projects of interest within the BOA, including: a) the Buffalo River Greenway Program, a multi-purpose open space corridor and trail system connecting the Buffalo River's recreational, cultural and ecological assets; b) the Buffalo River Sediment Remediation Program, including funding for remediation and collaboration with the Army Corps of Engineers to dredge the Buffalo River; c) the Southtowns Connector; d) the expansion of the Tifft Nature Preserve, to include the former Lehigh Valley railroad property; and e) the Tifft Street Greenway, to connect the George J Hartman Playfields to Fuhmann Boulevard.

Union Ship Canal Urban Renewal Plan

The Union Ship Canal Urban Renewal Plan was approved in October 2003. The Plan is the legal and administrative vehicle to implement the Union Ship Canal Master Plan (Buffalo Lakeside Commerce Park). The Urban Renewal Plan overrides existing M3 Heavy Industrial zoning and the Citywide Design and Site Plan requirements, and in their place, establishes zones for office, light industrial manufacturing, and open space/recreation. Prohibited uses within the Buffalo Lakeside Commerce Park include residential, freight terminals, junkyards, recycling centers and heavy industry.

The Urban Renewal Plan contains a series of progressive design standards. These standards: a) call for mixed-use development of high design quality, site amenities, open space and environmentally sensitive area protection; b) encourage originality, flexibility and innovation in site planning and design; c) require that uses and design are compatible with the Urban Renewal Plan; d) require the promotion of the health, safety, and general welfare of the public; e) require the provision of transportation, water, sewer, parks and other public services; f) support the preservation and protection of significant natural features; and g) ensure that the New York State Coastal Zone Management goals and policies are appropriately considered as development occurs.

Citywide Design and Site Plan

The Citywide Design and Site Plan Code establishes urban design controls to review development that may have adverse effects on adjoining uses. The Code authorizes the City Planning Board to review and approve, approve with modifications, or disapprove, design and site plans, including proposed development or activities within the BOA. The Code governs elements such as parking, means of ingress and egress, pedestrian sensitivity, screening, signage, landscaping, architectural features, location and dimension of buildings, impact of development on adjacent properties, and environmental matters that

affect the health, safety and general welfare of the community. Proposed projects within the Buffalo Lakeside Commerce Park are subject to the Union Ship Canal Urban Renewal Plan which overrides the provisions of the Citywide Design and Site Plan Code.

Preservation Standards

The City of Buffalo Preservation Standards establish controls designed to preserve City-designated landmarks, landmark sites and historic districts, to avoid the loss of historic or architecturally important properties, and to preserve the economic and architectural integrity of vacant and underutilized landmark properties through rehabilitation and adaptive reuse. The Standards authorize the Preservation Board, in part, to approve or disapprove certificates of no effect, certificates of appropriateness, or certificates of exception, for the erection, alteration, restoration, renovation, relocation, demolition or site improvement of any landmark, landmark site or of any building, structure, or site within an historic district when the exterior of such property would be affected. Within the BOA, South Park is the only designated City of Buffalo Landmark District and, therefore, any proposed construction or alteration activities within the park would be subject to the Preservation Standards and would require Preservation Board approval.

Key Findings

The City of Buffalo has an array of municipal regulations at its disposal that dictate the type, location and design quality of uses permitted in the BOA. Used strategically, these municipal mechanisms can bring coherence to the BOA, and ensure valuable long-term high-value opportunities are protected. The existing land use control framework cannot become a barrier to realizing the vision of the BOA that emerges through the Nomination process, but instead should be refined to reflect the strategic directions for this BOA work. For instance, the City should introduce and implement new tools such as Urban Design Guidelines to advance a consistent and quality design standard for new development in the BOA.

3.2.4 Economic Development Designations

Much of the BOA is supported by State and Federal economic development programs. *Map 6 - Economic Development Designations* illustrates areas within the BOA and its surrounding area identified as Empire Zone, Federal Renewal Community Area, and Environmental Zone.

New York State Empire Zone

The Empire Zone is a valuable tool and asset for attracting new economic opportunities. Businesses located within these zones can apply for state sales tax exemption, real property tax credits, and business credits for increasing employment in a designated area. The largest area within the BOA designated an Empire Zone is a portion of the Buffalo Lakeside Commerce Park. Other Empire Zone-designated areas within the BOA include the former Village Farms hydroponic tomato facility parcels north of South Park Avenue, parcels along Colgate Avenue, and the Sorrento Lactalis parcels along South Park Avenue.

Federal Renewal Community Area

The Federal Renewal Community Area designation encourages businesses to locate or expand operations while hiring residents from the renewal community. Census Tract 3, which includes most of the BOA study area north of Tiff Street, is included in the Buffalo-Lackawanna Renewal Community. The incentives to businesses located in this area include a wage credit for every employee hired from the renewal community area, accelerated depreciation, and a zero capital gains rate.

New York State Environmental Zone

As part of the Brownfield Cleanup Program, the Conrail/CSX “peninsula” area adjacent to the Buffalo River is designated an Environmental Zone (En-Zone) by the Empire State Development Corporation. Based on poverty rates by census tracts, the designation provides enhanced tax credits for remediation and redevelopment of this area.

Key Findings

Among the range of economic development designations available within the BOA, the Empire Zone is the most valuable. Lands in designated Empire Zones have the potential to attract higher industries and uses, providing long term stability and sustainability to the BOA and surrounding neighborhoods. Leveraged strategically, Empire Zones can be used to target uses that build momentum for the BOA brand, and help attract a critical mass of higher employment industries.

3.2.5 Brownfield, Abandoned and Vacant Sites

The majority of lands within the BOA are characterized as brownfield, abandoned or vacant. Properties available for immediate or future reuse or redevelopment are defined as meeting one or more of the following criteria, which are not mutually exclusive:

Underutilized: Underutilized properties have an active use and/or are occupied, but are not being utilized to their highest and best use, given their location, zoning, and size or percentage of developed area. Underutilized properties also include lands with viable structures or buildings not being utilized to their intended use or capacity.

Vacant: Vacant properties are identified through the City of Buffalo tax rolls and the New York State Office of Real Property Service’s Property Classification Codes. Reported results were verified or refined through a windshield survey.

Unoccupied (Abandoned) Buildings: Unoccupied properties consist of unoccupied buildings where it appears the owners no longer intend to occupy the property. These properties may have recorded tax arrears or are in-rem tax foreclosure.

Brownfield: Brownfields consist of underutilized, vacant and unoccupied sites, and each brownfield site is further characterized as one of the following six categories:

1. Remediated/Remediation Ongoing. These include sites where investigation and remedial activities have been completed to the satisfaction of the NYSDEC and/or USEPA, or where remediation under the oversight of the above agencies is ongoing, or designed and approved but not commenced. These sites are considered ready for future redevelopment.
2. Known Contamination. These include sites that are not currently being investigated and/or remediated or that have residual contamination documented from past spills or remediation efforts.
3. Brownfields. These include sites that have: a) been subject to Phase I Environmental Site Assessments that identified the likely presence of contamination; b) undergone past remedial activities that addressed some but not all possible contamination; or c) a documented past history of operations or proximity to sites having operations that may have utilized or disposed of hazardous materials.
4. No Known Contamination. These include sites that have been investigated and have been found to have no site contamination.
5. No Site Characterization. These include underutilized, vacant or unoccupied sites for which, based on available information, no site characterization has been identified.
6. Closed Landfill. These include several former dumps, or landfills that once operated within the BOA. These landfills have been closed and no longer accept solid waste and may require long-term operation and maintenance.

Map 7 - Brownfield Locations identifies the state of brownfields existing within the BOA including remediated areas, areas with known contamination, brownfields, areas of no known contamination, areas with no site characterization, and closed landfills.

From the Map, much of the publicly owned land within the BOA has been remediated and is ready for public or private investment and/or redevelopment. This includes the Riverbend Commerce Park (formerly Steelfields) and Village Farms sites, as well as vacant land within Buffalo Lakeside Commerce Park. A few publicly owned sites require additional site characterization and/or remediation. In contrast, much of the private land within the BOA contains active businesses, but remains underutilized. These lands are also for the most part brownfields (i.e., perceived or suspected contamination), have known contamination or have no site characterization. Nonetheless, before redevelopment can occur, these privately owned lands require further site characterization to better understand their environmental status.

The BOA includes four landfills that either contain waste from off-site sources or are containment cells storing contaminated waste from adjacent remediated lands. The landfills include: the Marilla Street Landfill, the Alltift Landfill, the Riverbend (Steelfields) containment cell, and the Tift Nature Preserve 'mounds' Landfill. Unless significant permitting and engineering efforts are initiated, the landfills can accommodate new limited uses as long as they do not compromise the landfill cap. Examples include recreation, and small slab-on-grade (no basement) buildings that do not require significant excavation.

According to the NYSDEC, the Alltift Landfill is graded to accommodate a golf course. Removal of waste from the Alltift Landfill is likely cost prohibitive given the nature of the waste contained within. If economics permit, removal of waste from the parts of the Marilla Street Landfill is possible. The Riverbend (Steelfields) containment cell, which contains mostly demolition debris and solid waste, as well as the Tift 'mounds' Landfill, are more flexible and better able to accommodate future redevelopment.

A compendium of site profiles detailing relevant brownfield, abandoned or vacant sites in the BOA is included in **Appendix B**. The individual site profiles include information on size, use, ownership, brownfield status and environmental history. For sites having significant structures on site, a detailed building profile is included in the site profile.

Key Findings

Although the BOA is quite large and has a long history of industry and contamination, much is known about the state of brownfields in the BOA. The majority of publicly-owned land in the BOA has been remediated and is ready for redevelopment. These publicly-owned lands include some of the best opportunities in the BOA to attract high value, high employment uses over the long term. These strategic parcels include the remaining vacant portions of Lake Side Commerce Park, Riverbend Commerce Park (the former Steelfields), and the former, now capped landfills. Much less is known about private underutilized brownfield lands, which either have known contamination or no site characterization. Through later stages of the BOA nomination process, the City of Buffalo will be able to draw resources to better understand the state of strategic sites, including private brownfield lands.

3.2.6 Strategic Brownfield Sites

To be determined following the community consultation and Master Planning process (Phase 3 and 4). *Map 8 - Underutilized Site Locations* details the BOA, identifying sites that are underutilized, vacant, unoccupied/abandoned and closed landfills.

3.2.7 Land Ownership

Of the BOA's total 1,946-acres, public land holdings account for 954 acres (or 49.02% of the BOA), which is slightly less than private sector ownership of 992 acres (or 50.98% of the BOA). Of the private land holdings, railroad uses account for 261 acres (or 13.43% of the BOA). *Map 9 - Land Ownership Patterns* illustrates the pattern of public (City, County, State and Federal), and private land ownership in the BOA.

The majority of publicly owned land offers immediate opportunities for redevelopment or public investment. Two public sector entities - the City and BUDC – together control a total of 776 acres (or 39.89% of the BOA), which includes the majority of available vacant property in the BOA. Of the 267 acres BUDC owns, 182 acres is within Riverbend Commerce Park (the Steelfields property) and 107 acres is within Buffalo Lakeside Commerce Park, both of which are properties BUDC is actively marketing for redevelopment. Of the 509 acres controlled by the City of Buffalo, 233 acres make up the Tifft Nature Preserve and 148 acres make up South Park. Both the Tifft Nature Preserve and South Park are committed for public use as parks and open space. Public street right-of-ways, also committed to public use and not expected to be available for redevelopment, account for 103 acres (5%) of the BOA.

Privately owned lands, in particular along the Hopkins Street and Tifft Street corridors, are underutilized and weaken adjacent residential areas. These lands provide longer-term opportunities for higher uses.

Key Findings

Approximately half the BOA is in public ownership, including important open space assets as well as prime land for redevelopment. Together the City and BUDC control 40% of the BOA. As a result, the City has great ability to determine how the BOA will evolve.

Nonetheless, much of the publicly-owned land is disconnected and surrounded by low value uses. In order to leverage these lands to draw out their full value and catalyze high-value private sector investment, the City should invest in renewing the area's sense of place and brand, as well as the structure that ties the BOA together.

3.2.8 Parks and Open Space

The BOA benefits from an impressive park and open space system, which includes regional destinations such as the Tiff Nature Preserve, South Park, the riverfront and lakefront. Unfortunately, the BOA's park and open space network is fragmented and the individual potential of these important destinations are unrealized.

Map 10 - Parks and Open Spaces identifies areas municipally designated park and open space, totaling 444 acres. This area is comprised of: a) four public parks (South Park, the George J. Hartman Playfields, Okell Park and Boone Park); b) the Tiff Nature Preserve; and c) a future park/open space circulating Union Ship Canal in Lakeside Commerce Park.

In addition, the BOA includes significant riverfront frontage and adjacency to lakefront areas. Further, the BOA has a simple (but incomplete) network of pedestrian and bicycle routes - although their condition is poor and often dangerous to traverse. The pedestrian and bicycle system is further described in Section 3.2.11 Transportation Systems.

Key Findings

The park and open space network are the central assets that make the BOA a great place. Collectively these assets have the potential to ignite change, and increase the identity of the BOA as a place of nature, sustainability and economic resurgence. To realize this potential, investment in the public realm should be a priority and considered a catalytic investment.

3.2.9 Building Inventory

The compendium of site profiles in Appendix B includes a detailed building profile for each underutilized, vacant or unoccupied site that has a significant structure on site. The building profiles include data on age, area, and current or historic use, as available.

3.2.10 Historic and Archeological Resources

The BOA contains several historic assets that celebrate the area’s industrial past, and highlight the area’s park and open space system. Historic designations do not prohibit public improvement or private investment, but instead open access to State and Federal funding. As identified in *Map 11 - Historic Resources and Archeologically Sensitive Areas* historic resources listed or eligible for listing on the National and State Registers of Historic Places within the BOA include: South Park (including the Botanical Gardens and the 1927 golf shelter as contributing structures) which forms part of the Buffalo Olmsted Parks and Parkways Thematic Resources, the Concrete-Central Elevator on the Buffalo River, Cargill Superior Elevator on the Buffalo River, and the Union Ship Canal. Among the historic resources, the grain elevators provide a unique opportunity for potential reuse and/or to promote the industrial heritage of the area. South Park is also a designated City of Buffalo Landmark District.

Further, as demonstrated on *Map 11 - Historic Resources and Archeologically Sensitive Areas*, and according to the New York State database for Archeological Sensitivity, the majority of the BOA is included within an Archeologically Sensitive Area. The only area not identified archeologically sensitive stretches north-south along the western boundary of Okell Park and east of South Park Avenue. Areas identified archeologically sensitive do not prohibit future development, but nonetheless, these areas are subject to a measure of protection when State and Federal agencies fund, license or approve projects.

Key Findings

The BOA’s industrial past combined with its Olmstead legacy is an asset that reinforces the area’s distinctiveness. Celebrating South Buffalo’s heritage enables the past to educate the future, as well as pass on a sense of pride and identity. Moving forward creative consideration should be given as to how to leverage historic assets to attract visitors to the BOA or to spur new industries through adaptive reuse.

3.2.11 Transportation Systems

The BOA lies at the intersection of an international transportation hub, with rail, navigable waterway and roadway infrastructure.

Rail

The BOA is divided by an active rail corridor, which provides both opportunities for rail access/service as well as physical constraints on redevelopment in the BOA. The BOA also includes unused rail corridors that could be used to expand rail service. *Map 12 - Railroad Ownership* identifies the ownership of the various railroad infrastructure traversing the BOA.

The BOA is currently served by two Class I railroads, one Class II (Regional) railroad, and two Class III (Short Line) railroads. In addition, two other Class I railroads as well as Amtrak have trackage rights in the BOA. The two Class I railroads operating in this area are CSX Transportation (CSX) and Norfolk Southern Railway Inc.

The Buffalo and Pittsburgh Railroad (BPRR), a subsidiary of the Genesee & Wyoming Company, is the only Regional/Class II railroad in the area. The BOA is also home to two Class III railroads (Short Line railroads): Buffalo Southern Railroad and South Buffalo Railway (SB).

CSX owns, operates and maintains two drawbridges over the Buffalo River. The western-most bridge links the BOA with a railroad junction in the vicinity of Exchange Street, Hamburg Street and Seneca Street. The eastern-most Buffalo Creek Railroad bridge links the BOA with CSX's Frontier Yard and Norfolk Southern's Bison Yard. This bridge serves as the primary railroad river crossing and is heavily traveled. Norfolk Southern, CN, Canadian Pacific, Buffalo and Pittsburgh and Amtrak have trackage rights to this bridge. However, CSX controls all traffic crossing the bridge. There is a companion lift bridge next to the CP draw bridge that has not been operational for many years and is locked in the open (upright) position. No known plans have been identified to rehabilitate or replace this bridge.

The BOA also includes several railroad yards including the Ohio Street Yard, operated by CSX, the Tifft Street Yard, operated by BS and NS, and the Buffalo Creek Yard, operated by BPRR.

Navigable Waterways

The Buffalo River shipping channel is a component of the Buffalo Harbor, which has direct access to the St. Lawrence Seaway from Lake Erie, as well as a network of railroads connecting North America. The U.S. Army Corps of Engineers is charged with maintaining the Buffalo River shipping channel. The Corps maintains the channel depth up to 23 feet. The channel depth is measured annually and dredged at 2 to 3 year intervals.

The U.S. Coast Guard monitors ship traffic within the Buffalo River. Arrangements for tugs are made through the Great Lakes Towing Co. dispatcher in Cleveland, Ohio. Tugs to 1,250 hp are available. City regulations necessitate vessels that require the opening of one or more bridges along the Buffalo River to have assistance from one or more tugs. According to the City of Buffalo, there were 166 bridge lifts in 2007 (which also corresponds to the number of shipping vessels that traversed the Buffalo River during the same period). In the previous four years, the number of shipping vessels on the River ranged from 212 vessels in 2003 to 370 in 2006 (when the Corps was conducting dredging activities).

Roadways

Map 13 - Roadway Network illustrates both the internal and external roadway network serving the BOA. The Map also lists existing Levels of Service (LOS) for major signalized intersections within the BOA. All LOS are C or better for both the AM and PM peak hours, indicating reserve capacity.

From the Map, NYS Route 5, a major arterial commuter route, runs along the western boundary of the BOA. Fuhrman Boulevard and Ohio Street run parallel to NYS 5 and serve as one-way at-grade service roads. The New York State Department of Transportation (NYSDOT) is currently reconfiguring this complex of roadways into a combination arterial road / parallel waterfront access road system. Under this reconfiguration, Route 5 would follow its present alignment and grade, with Fuhrman Boulevard on the west side converted to a four lane, two-way waterfront access road and a portion of Ohio Street on the east side becoming an access roadway to the Tifft Nature Preserve.

Also, from the Map, Ridge Road, a principal arterial roadway for the City of Lackawanna, is a further major transportation link serving the BOA. Occupying approximately 1.6 miles of the southeast corner of

the BOA, Ridge Road intersects with the I-90 Expressway of the New York State Thruway Authority (NYSTA) to form Interchange 55, approximately 0.4 miles to the east of the BOA. Interchange 55 is also the northern terminus of New York Route 219, a major north-south artery serving the Western New York Southtowns. The Ridge Road bridge spans the rail corridor bisecting the BOA. The bridge is currently under reconstruction. When complete, the bridge will maintain four lanes bordered by designated and signed bicycle lanes. The I-190 Expressway, situated approximately 0.5 miles north of the BOA, is the major roadway supporting the BOA.

Bicycle and Pedestrian Trails

Bicycle and trail facilities fall into three categories:

1. Multi-use trails for bicyclists and joggers
2. On-street signed bicycle routes
3. On-street, “share the roadway” bicycle designations

As identified in *Map 14 - Bicycle and Multi-Use Trails* the BOA has multi-use trails along Fuhrmann Boulevard and along Tiff Street from Fuhrman Boulevard east to the George J. Hartman Play Fields. From this point, an on-street signed bicycle route runs east to Hopkins Street. There is also a multi-use trail around the perimeter of South Park and a signed on-street bicycle route on McKinley Parkway about 0.5 miles east of the BOA. In other areas of the BOA – in particular along Hopkins Street, Ridge Road and Tiff Street east of Hopkins Street - bicyclists must “share the roadway”. These trails are rated either ‘suitable’ or ‘caution advised’.

In addition, the reconfiguration of the Route 5 roadway complex includes a new multi-use pedestrian trail following the reconfigured Ohio Street access to the Tiff Nature Preserve. From there, the trail continues north, crossing under Route 5 and joining the existing Fuhrman Boulevard multi-use trail on the west side of Route 5.

Key Findings

The physical and natural transportation infrastructure that enabled the South Buffalo BOA to thrive as an industrial center through the 1900s still remains. The opportunity moving forward is to rethink how this infrastructure can be adapted and re-used to the benefit of the BOA as a ‘new economy’ hub. With limited funds at its disposal, the City should ensure that investment in new infrastructure maximizes benefits to the neighboring community and City, including addressing challenges uncovered through the BOA Nomination process.

3.2.12 Infrastructure

Adequate public utilities for power, public water supply and sanitary sewer are generally available around the perimeter of the BOA study area and in developed areas along Abby Street, Hopkins Street and South Park Avenue. However, for the majority of interior vacant lands within the BOA, new utility extensions will be required.

Public Water System

The BOA's existing PWS system was designed to handle the high demands of the area's former heavy industries. Existing system pressure in the area is generally maintained at 60 psi. *Map 15 - Public Water System Facilities* details the PWS serving the BOA.

Since demand in the BOA has been greatly reduced from historical peaks, the capacity of the existing PWS system is adequate, with few exceptions, to meet immediate future demand. For example, indications do show that the water line through the South Park area near the City of Lackawanna does not have abundant pressure or excess capacity.

According to the COBDPW Water Division planned or anticipated improvements to the public water system in the BOA include:

1. Interconnection with the Erie County Water Authority system on NYS Route 5 at the south City line near the Buffalo Lakeside Commerce Park (BLCP). This will result in enhanced pressure and supply to this distal end of the COB water system.
2. A new loop link from the end of the Ship Canal Parkway water main north to the Tiff Street 16-inch water main. This improvement will also result in enhanced service to the BLCP and north to adjacent underutilized heavy industrial land.
3. The NYSDOT Route 5 project includes approximately \$1 million worth of water system improvements including the replacement/relocation of the existing 16-inch water main. These improvements will result in enhanced water service and reliability in the BOA.

The BOA also has a private water network, built by a consortium of industries in the mid-1960s. The system provides direct lake water for industrial cooling, serving specific sites in the BOA, including Riverbend Commerce Park (the former Republic Steel site). Currently a company adjacent to the BOA named RiverWright has expressed interest to connect to the system to supply their proposed ethanol manufacturing process.

Buffalo River Improvement Corporation Water System (BRIC System)

The Buffalo River Improvement Corporation was a consortium of industries created in the mid-1960's to develop a source and distribution system to supply industrial cooling water to specific sites in and around the BOA study area. These sites included the former Republic Steel site located on the northerly edge of the BOA. Currently, it is believed that only one company is utilizing and maintaining the system (reputedly PVS Chemicals, Inc.). The BRIC system facilities consist of a raw water intake crib and conduit, a pumping station, an electrical substation, distribution pipelines, and an elevated 2 million gallon storage tank. The system is also equipped with a Zebra Muscle control system.

The BRIC system is non-potable water which is not suitable for consumption but continues to be used as a valuable supply for industrial cooling and makeup water supply. The BRIC system was reputedly designed with a capacity of 120 million gallons per day. Currently, the system is supplying only approximately 5-6 million gallons per day. Once the water is used for cooling it is discharged into the Buffalo River resulting in augmentation of the river base flow, particularly during the low flow summer months.

Municipal Sanitary Sewer System

Ensuring adequate sewer capacity in the BOA, in particular to the west, is an ongoing challenge. In particular, the BOA's Combined Sewer Overflows (CSOs) struggle during heavy wet weather events, resulting in direct sewage discharge into the Buffalo River.

Map 16 - Sanitary and Storm Sewer Facilities details the municipal sanitary sewer system serving the BOA. As detailed in the Map, existing sanitary sewers on the west side of the BOA are limited to a pump station and 6" force main from Tiff Nature Preserve to the Ohio Street sanitary sewer. There is minimal reserve capacity in the system. Extending gravity sewers to Tiff Street is limited by the depth of the station and minimum hydraulic gradients.

As shown in *Map 17 - Sanitary and Storm Sewer Facilities Lakeside Commerce Park* wastewater from Lakeside Commerce Park is conveyed to the Erie County Sewer District No.6 pipe per an inter-municipal agreement. The wastewater is treated at the District 6 Wastewater Treatment Facility on Lehigh Avenue. According to the BSA, there is a study underway to consider eliminating the ECSD #6 treatment plant and instead convey the wastewater to the City of Buffalo.

Map 18 - Sanitary and Storm Sewer Facilities Abby Street Area and *Map 19 - Sanitary and Storm Sewer Facilities South Park Area* show that the easterly side of the BOA is relatively well served by both existing sanitary and storm sewers. The BSA system includes an extensive network of collector sewers, sub-trunks, interceptors, wet weather bypass chambers, and overflow sewers serving the industrial, commercial and residential zones around Abby Street, Hopkins Street and South Park Avenue. There are capacity problems during wet weather events that result in combined sewer overflows (CSOs) where sewage discharges directly into the Buffalo River during high volume rainfall events and other wet weather periods.

Two existing CSOs feeding into the Buffalo River (CSOs #28 and 29) are located at the northeast corner of the BOA at the end of Boone Street. These two CSO's are among the top ten CSOs in the City based on volume. To alleviate wet weather CSOs, a system of storm sewers were installed between Abby Street and Hopkins streets. The largest component of this storm sewer is a main trunk line along Boone and Germania Streets from the Buffalo River south to Altruria Street, then across Altruria east to South Park Avenue. The trunk serves as both a storm sewer and combined overflow sewer during wet weather events.

According to the BSA, sanitary sewer capacity and ultimate elimination of CSOs in the BOA is the subject of extensive ongoing study and planning. Already, approximately \$500 million of necessary system-wide improvements have been identified, including:

1. Flow enhancement and additional conveyance capacity along Hopkins and Houston Streets.
2. Storm sewer separation along South Park Lake.
3. Pump station upgrade to handle additional wastewater flow from Lackawanna and the east side of the BOA.
4. Contract 1 storm outfall for City of Lackawanna.
5. New storm sewer and outfall under rail corridor.

However, no funding or timeline has been established for these proposed improvements.

While it is possible to reduce the impact of CSOs using wetlands treatment systems, such an approach requires stringent monitoring by regulatory agencies. Another option may be to attenuate CSOs in the BOA is to construct an Overflow Retention Basin which would enable primary treatment to surcharged combined wastewater as well as retain many smaller rain related events for storage and discharge to the BSA treatment plant. ORF is a more conventional practice acceptable to regulatory agencies.

Storm Sewers and Drainage

Map 16 - Sanitary and Storm Sewer Facilities details storm water and drainage challenges in the BOA. Of note, the rail corridor is a critical barrier obstructing east-west drainage across the BOA. Current east-west drainage is enabled through culverts under the rail tracks. These culverts – which are owned by an array of rail companies - are in various states of disrepair.

Northwest. In the northwest quadrant of the BOA there is a complex of abandoned ship canals in the Tifft Nature Preserve which have been partially filled resulting in the creation of Lake Kirsty and several ponds. As indicated on *Map 20 - FEMA Special Flood Hazard Areas* much of this area is regulatory wetland and/or floodplain.

Northeast. Also described above, there are existing municipal storm sewers in the northeast quadrant of the BOA along Abby, Germania, and Hopkins Street. Storm sewer capacity in this quadrant is limited. New storm drainage facilities in the northeast quadrant area require BSA approval and SPDES permits for Stormwater Discharge from Construction Sites and/or Stormwater Discharge from Industrial Sites. These permits require the implementation of stormwater quality and quantity control practices.

Southwest. The southwest quadrant (south of Tifft Street) has existing storm sewers along NYS Route 5 and in the Buffalo Lakeside Commerce Park, and drain into the Inner Harbor. These facilities are owned and operated by the NYSDOT and the BSA, respectively. Significant new drainage improvements are included in the ongoing NYS Route 5 reconstruction project.

Since much of this quadrant is either vacant brownfield and/or underutilized land, new storm drainage facilities would be subject to NYSDOT and BSA approval as well as the SPDES permits for Stormwater Discharges from Construction Sites and/or Stormwater Discharges from Industrial Sites. These general permits require implementation of stormwater quality and quantity control practices.

Southeast. The predominant drainage feature in the southeast quadrant south of the B&O rail corridor is South Park Lake. South Park Lake drains west to the Norfolk Southern rail tracks, then north along the tracks where it combines with the pond at the Tifft Street overpass. From there stormwater is conveyed under the rail corridor by way of railroad culverts where it is eventually discharged north of Tifft Street into the former east canal which is now called Berm Pond and located in the Tifft Nature Preserve.

Public Power Facilities

The BOA is served with electrical power through National Grid. Currently, there are existing 115 and 34.5 kilovolt overhead distribution lines running along the rail corridor. In residential and commercial areas, including along South Park Avenue, there are available 4160 volt overhead distribution lines.

Key Findings

The redevelopment of the BOA will over-time necessitate new investment in infrastructure, in particular in the interior of the BOA. New investment in infrastructure is a significant opportunity to support the identity and brand of the BOA. The City should consider alternative solutions such as 'green technologies' to provide municipal energy, water, heat and waste disposal and stormwater services that are more efficient and cost effective over the long-term, helping to turn the BOA's competitive disadvantages into competitive advantages.

3.2.13 Natural Resources and Environmental Features

Natural resources and environmental features within the South Buffalo BOA include the Buffalo River, the Tift Nature Preserve, Union Ship Canal, South Park, significant fish and wildlife habitat, federal and state wetlands, and significant floodplain areas.

Topography

The BOA is located in the Erie-Ontario lake plain province which has minimal topographic relief, and generally slopes north and west towards the Buffalo River and Lake Erie. As shown on *Map 21 - Topography* the highest elevations are the man made landfill areas in the southwest corner of the Tift Nature Preserve and in the Marilla Street landfill.

Soils

As detailed in *Map 22 - Soils*, the predominant soils in the BOA are classified as Urban Land (approximately 71%) on lowland plains, reflecting previous industrial land uses. These urban soils are typically found in areas dominated by nearly level to sloping urbanized areas and areas of well drained to poorly drained soils and disturbed soils. Generally, asphalt, concrete, buildings and other impervious structures cover 80% or more of Urban Land soil surface. According to the Soil Survey of Erie County, depth to bedrock is characterized for Urban Land soil types to be greater than 60 feet.

Past subsurface investigations conducted in the Buffalo Lakeside Commerce Park have indicated the presence of fill materials (i.e., construction and demolition debris) and peat which contribute to instability and increase building foundation construction costs. Given the lack of consistency in depth or materials that make the urban land soils within the BOA, future redevelopment will require careful subsurface investigation. Site-specific geotechnical studies based on current soil borings should be required by the City from each developer at the time a specific building design is proposed. Given the lack of consistency in depth or materials that make up urban land soils, redevelopment will require careful subsurface investigation.

Of the remaining non-Urban Land soils, most are found in Tift Nature Preserve, South Park, the area in the vicinity of Okell Playground, and the northern part the Buffalo Lakeside Commerce Park where State freshwater and mapped NWI wetlands are located. In addition, soil types classified as Dumps (Dp) are located within the Tift Nature Preserve, the Marilla Street Landfill, and the Alltiff Landfill.

Bedrock and Surficial Geology

The bedrock underlying the BOA is composed of three formations roughly dividing the area into three segments north to south; Moorehouse Limestone in the Onondaga Formation, which is approximately 120 feet in depth; the Marcellus Formation, consisting of Oatka Creek Shale, which is approximately 30-55 feet in depth; and Levanna Shale and Stafford Limestone, approximately 60-90 feet in depth.

The surface geology of the BOA consists of one type: Lacustrine silt and clay. The area was a part of several glacial lakes during the last ice age and features lakebed deposits. These consist of generally laminated silt and clay and are generally calcareous.

Surface Waters and Tributaries

As shown on *Map 23 – Surface Waters*, the BOA contains numerous waterbodies including the Buffalo River to the north, the Union Ship Canal to the south and within the Buffalo Lakeside Commerce Park, and small lakes and ponds within the Tifft Nature Preserve, South Park and areas along the rail corridor. Lake Erie is located immediately to the west of the BOA and NYS Route 5.

The NYSDEC establishes water use classification and water quality standards based on considerations for public health and water supplies, recreation, propagation and protection of fish and wildlife. According to the NYSDEC regulations, the Buffalo River is a Class C, Standards C watercourse suitable for fishing, fish propagation and survival, and for primary and secondary contact recreation, although other factors may limit the use for these purposes.

The Buffalo River is listed as a Great Lakes Areas of Concern (AOC) in the Great Lakes Water Quality Agreement between the United States and Canada. Great Lakes AOC's are designated geographic areas within the Great Lakes Basin that show severe environmental degradation. The Buffalo River Remedial Action Plan (RAP) was prepared in 1989 to identify the causes of impairment. The goal of the RAP is to delist the waterway from the AOC list. In October 2003, the U.S. EPA Great Lakes National Program Office selected Friends of the Buffalo and Niagara Rivers (now Buffalo-Niagara Riverkeeper) to coordinate the implementation of the Buffalo RAP. Buffalo Niagara Riverkeeper is coordinating all federal and state agency efforts for the assessment and remediation of contaminated sediments in the Buffalo River, including the revision of the 1989 RAP. An updated Remedial Strategy including a Remedial Investigation/Feasibility Study (RI/FS) for river clean-up and source control is being developed by a technical advisory group and will be completed by the Fall of 2008. Remedial Design will follow completion of the RI/FS, and the Remedial Action, which is scheduled to be implemented between 2010 and 2012, will include contaminated sediment removal and natural resource enhancements including habitat restoration and improved recreational opportunities.

The Union Ship Canal is a man-made water body that formerly served inland industries clustered around the BOA railroad corridor. The area surrounding the Union Ship Canal is now part of the Buffalo Lakeside Commerce Park. According to the NYSDEC regulations, the Union Ship Canal is also classified as a Class C, Standards C watercourse.

South Park Lake, located within historic South Park, is a 21-acre man-made lake designed in the 1890's by Frederick Law Olmsted as the key water feature of the park. The lake is fed by surface water runoff and municipal water sources as well as an outfall from Cazenovia Creek, and provides habitat for fish and waterfowl. Efforts are underway to secure funding for the South Park Lake Aquatic Ecosystem

Restoration Project, which will ultimately include dredging the lake to ensure it is returned to a self-regulating ecological system.

A large concentration of water bodies is located in Tifft Nature Preserve, including one lake and three ponds: Lake Kirsty, Beth Pond, Lisa Pond, and Berm Pond. Lisa Pond and Berm Pond are connected via wetlands and watercourses. Berm Pond also includes an outfall into Lake Kirsty.

Groundwater Resources

According to the USGS Map *Potential Yields of Wells in Unconsolidated Aquifers in New York State – Niagara Sheet*, the BOA is not located on an unconfined aquifer. According to NYSDEC and USEPA databases, the BOA is not located over a primary or sole source aquifer. The Generic Environmental Impact Statement prepared for the Union Ship Canal area indicates that groundwater depth ranges from 2.5 to 9.0 feet.

The BOA and City of Buffalo are served by public water and therefore exposures to contaminated groundwater via drinking water are not expected. Furthermore, there are no known users of groundwater for drinking or industrial purposes in the BOA. Since the BOA formerly contained numerous industrial operations including Republic Steel and Hanna Furnace, groundwater has been impacted in some areas. However, a number sites contaminated by former industrial operations have been remediated, or remediation is ongoing or planned. Remediation of these sites has or will include source removal and remediation of grossly contaminated soils, and combined with a cover of clean soil and impervious materials, groundwater impacts will be mitigated and the potential for direct contact with groundwater will be minimized.

Floodplains

The City of Buffalo participates in the National Flood Insurance Program, utilizing Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (*Map 20 - FEMA Special Hazard Areas*). The Flood Insurance Rate Map for the BOA shows Special Flood Hazard Areas (or 100-year floodplains) associated with the Buffalo River and Lake Erie. Within the BOA, the Buffalo River Special Flood Hazard Area is limited in depth and generally confined to the area along the river bank, with the exception of the Conrail/CSX “peninsula” property in the north, of which a large portion of the 40 acres are located in a Special Flood Hazard Area.

The Tifft Nature Preserve is almost entirely within a Special Flood Hazard Area with the exception of the ‘mounds’ landfill area in the south east corner. The George J. Hartman Playfields are also entirely within the Special Flood Hazard Area. In addition, large portions of Buffalo Lakeside Commerce Park are within the Special Flood Hazard Area, including areas along Tifft Street, surrounding the Union Ship Canal, and between the Union Ship Canal and Tifft Street.

Development activities within the Special Flood Hazard Area are regulated by the City of Buffalo’s Flood Damage Prevention Law (Article 31), which requires a Floodplain Development Permit. New development must be constructed at or above the mapped base flood elevation. However, the Special Flood Hazard Area is not a significant impediment to redevelopment.

Wetlands

Within the BOA, there are large areas that are designated either as a State freshwater wetlands or mapped on the National Wetlands Inventory (NWI) as indicated on *Map 24 - Wetlands*. State freshwater wetlands are located within and adjacent to Tift Nature Preserve including the central area of the Preserve encompassing both Lisa Pond and Berm Pond and the areas to the immediate south and east; on the northern side of Buffalo Lakeside Commerce Park along Tift Street; and in the linear areas that extend along the railroad corridor from Tift Street to the northwest portion of South Park. NWI wetlands or waters include all of the lake/pond areas of Tift Nature Preserve; portions of the Hydro-Air property and a small area to the immediate east; small areas adjacent to Alltiff and Marilla Street Landfills; South Park Lake and areas to the immediate north; and portions of Buffalo Lakeside Commerce Park including the Union Ship Canal and a small area to the north. The Buffalo River and Lake Erie are also identified as NWI waters. Development within Federal wetlands requires delineation and permitting but is not prohibited. State freshwater wetlands and their 100-foot adjacent areas are regulated by the New York State Department of Environmental Conservation (NYSDEC). Given the regulatory limitations, location, and ecological importance of these State freshwater wetlands, any proposed impacts to these wetlands and their adjacent area would require extensive review by the NYSDEC and would include associated permitting and mitigation. Therefore, it is unlikely that State freshwater wetland areas would be considered for redevelopment, but do not represent a significant impediment to the redevelopment of surrounding, unregulated areas.

Fish & Wildlife Habitats

Several areas within the BOA provide habitat for bird and mammal species including the Tift Nature Preserve, the Buffalo River corridor and South Park Lake. Fishing opportunities exist on the Buffalo River and lakes/ponds within Tift Nature Preserve. South Park and South Park Lake provide a refuge for migratory birds particularly geese, and the wooded wetlands to the north provide shelter for local species of mammals and birds.

The New York State Department of State, Division of Coastal Resources, with a recommendation from the NYSDEC, has designated the Tift Nature Preserve as a Significant Coastal Fish and Wildlife Habitat (SCFWH). Proposed project's located in or near a SCFWH may be required to address the impacts of such project on the habitat through the consistency review process. Once a determination is made that a proposed project is subject to consistency review, the State's coastal policies apply, which are aimed at the protection of fish and wildlife resources of statewide significance.

The Buffalo Niagara Riverkeeper has undertaken and/or coordinated numerous fish and wildlife-related studies and projects within the BOA and adjacent areas along the Buffalo River. These studies have included an assessment of potential aquatic habitat restoration sites, a fish contaminant study, a herpetological survey, and a bird population survey. In addition, Riverkeeper, in cooperation with the City of Buffalo and the USEPA, has completed four Buffalo River habitat restoration projects including the Ohio Street Boat Launch, Smith Street, Bailey Avenue Peninsula and Seneca Bluffs. These projects included significant natural resource improvements such as replanting native vegetation, habitat enhancement, wetland reconstruction, and construction of public access facilities and interpretive elements.

While some vacant and underutilized properties provide natural habitat within the BOA, it is noted that past industrial uses have eliminated many indigenous plant species in these impacted areas. The non-

indigenous vegetation has also minimized the habitat value to wildlife in these areas. Species that occupy the BOA must be tolerant of the highly disturbed nature of the landscape and human activity and require relatively small habitat areas. Within the areas of past industrial operations that have been or will be remediated, , wildlife habitat will not present a constraint to redevelopment. Areas, particularly along the Buffalo River corridor that will be restored as part of implementation of the Remedial Action Plan, will need to be identified to minimize potential impacts from proposed redevelopment on remediated lands within the BOA.

Threatened and Endangered Species

According to the United States Department of the Interior, Fish and Wildlife Service (USFWS), except for occasional transient individuals, no federally-listed or proposed endangered or threatened species, or candidate species under the USFWS jurisdiction are known to exist in Erie County.

Through consultation with the NYSDEC Division of Fish, Wildlife & Marine Resources, Natural Heritage Program, a report on rare species and ecological communities within the BOA project area indicated three threatened species in the vicinity of the BOA; Least Bittern, Pied-billed Grebe and Lake Sturgeon. The bird species are typically associated with pond and marsh habitats and would most likely be observed in Tiff Nature Preserve and along the Buffalo River. Any proposed projects in these sensitive areas would require careful evaluation of the potential impacts on these species.

Key Findings

The natural resource and environmental features is a key foundation from which the South Buffalo BOA can enhance its identity and renew its brand. Its mixture of waterfront, wetlands, and fish and wildlife habitat within proximity to the downtown make the BOA an attractive place to live, work and visit. As a center of industry the BOA's natural environment was shaped to meet the needs of development. In renewing the BOA, the City of Buffalo has the opportunity to adopt an alternative paradigm, to instead respect the constraints of the natural environment and celebrate it as an economic, cultural and recreational resource.