



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

NOV 23 2011

To All Interested Government Agencies and Public Groups:

In accordance with the U.S. Environmental Protection Agency's (EPA) procedures for the preparation of environmental impact statements (EIS), an environmental review has been performed on the proposed agency action below:

**Project Name:** Lower Harbor Brook CSO Storage Facility and Conveyances

**Project Number:** XP 972606-05

**Purpose of Project:** The Onondaga Lake Amended Consent Judgment (ACJ) requires the County to bring Onondaga Lake and its tributary streams into compliance with the requirements of the Clean Water Act. Combined Sewer Overflows (CSO) contribute to Lake contamination.

**Project Originator:** Onondaga County Department of Water Environment Protection (OCDWEP)

**Project Location:** Rusin Avenue  
City of Syracuse  
Onondaga County, New York

**Project Description:** The project involves installing conveyances to transfer combined sewage overflows from CSOs 003, 004, and 063 (future connection) to a new 4.9 million gallon storage tank to be constructed on a vacant lot. The 150-foot diameter by 57-foot (+/-) high storage tank will be designed to accept overflows up to the 1-year, 2-hour design storm event. This storage tank will be mostly buried below ground with an 8-foot portion consisting of a brick exterior wall structure with a flat sloped roof extending above the ground. The sloped roof will collect rainwater and channel it to a 76,000-gallon storage unit to be used for cleaning the tank interior. A 1,600 square foot brick exterior Utilities Building will be constructed to the east end of the storage tank to provide entry access to the tank and house ancillary systems.

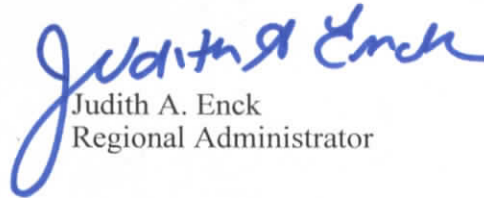
**Project Costs:** \$ 33,586,000

**EPA Grant:** \$ 15,800,000

Our environmental review of this project indicates that no significant adverse environmental impacts will result from the proposed action. Consequently, we have made a decision not to prepare an EIS on the project. This decision is based on a careful review of the project's environmental information document and other supporting information. These documents, along with the Environmental Assessment (copy enclosed), are on file at the offices of the EPA Region 2 and the OCDWEP, where they are available for public scrutiny upon request. The EA is also available on EPA Region 2's website at <http://www.epa.gov/region02/spmm/r2nepa.htm#r2docs>.

Comments supporting or disagreeing with this decision may be submitted to EPA for consideration. All comments must be received within 30 calendar days of the date of this finding of no significant impact (FNSI). Please address your comments to: Grace Musumeci, Chief, Environmental Review Section, at the above address. No administrative action will be taken on the project for at least 30 calendar days after the date of this FNSI.

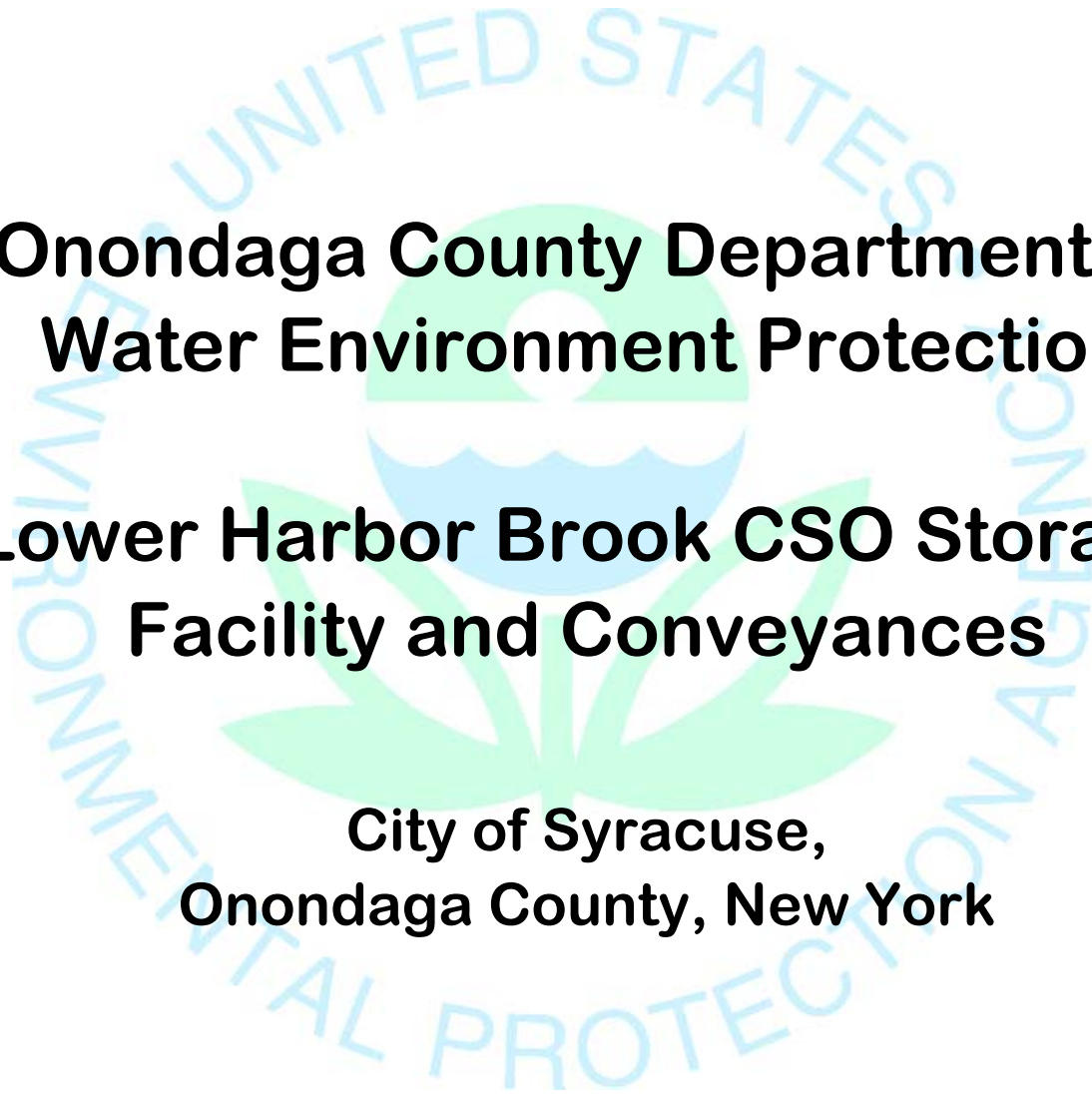
Sincerely,



Judith A. Enck  
Regional Administrator

Enclosure

USEPA Region 2  
290 Broadway  
New York, NY 10007-1866



**Onondaga County Department of  
Water Environment Protection**

**Lower Harbor Brook CSO Storage  
Facility and Conveyances**

**City of Syracuse,  
Onondaga County, New York**

**Environmental Assessment**

*November 2011*

## Environmental Assessment

### **I. Project Identification**

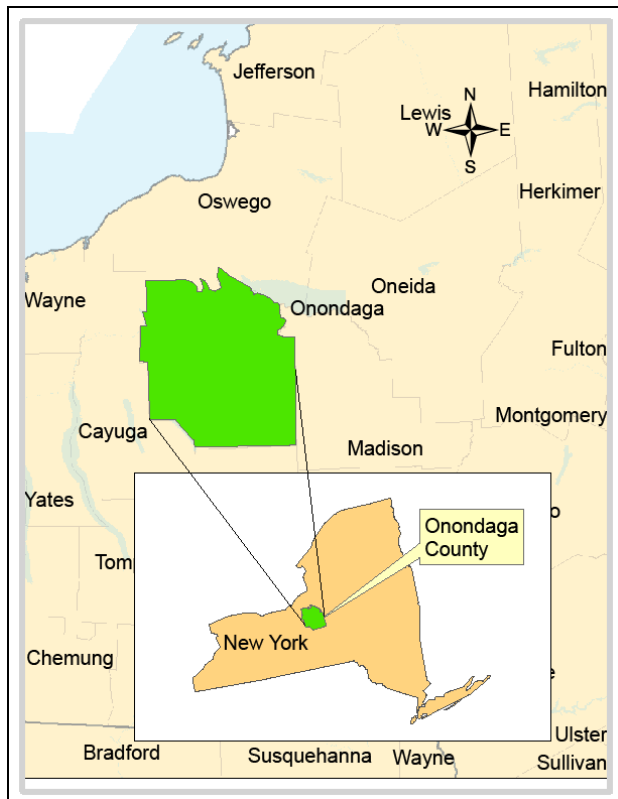
Project Name: Lower Harbor Brook CSO Storage Facility and Conveyances

Grant Applicant: Onondaga County Department of  
Water Environment Protection (OCDWEP)  
650 Hiawatha Boulevard West  
Syracuse, New York 13204-1194

Project Location: City of Syracuse  
Onondaga County, New York

### **II. Description of the Facility Planning Area**

The basin within study area for this project includes the Lower Harbor Brook (LHB) located in the City of Syracuse (City), Onondaga County, New York (Figures 1 and 2). The project area is southwest of Onondaga Lake (Lake). The 3.241-acre project site is located on a property owned by Onondaga County and surrounds Rusin Avenue. The site is on the west side of State Fair Boulevard (Blvd) between Hiawatha Blvd and West Genessee Street. Directly across State Fair Blvd to the east is the Syracuse Fire Department Training complex. Two sets of railroad tracks and a major vehicle corridor (Erie Blvd) are located west of the site. Immediately adjacent to the site to the south is Pensabene's Casa Grande on 135 State Fair Blvd, which is a family catering and restaurant near the Harbor Brook (Brook) open channel. The urban setting within the project area includes sewers, mowed lawns, basements, flower/vegetable gardens, junkyards, and vacant lots.



**Figure 1. County Location Map**



**Figure 2. Site Location Map**

The Harbor Brook basin is made up of three distinctive areas: the lower basin, middle basin, and upper basin. There are 18 New York State Department of Environmental Conservation (NYSDEC) permitted combined sewer overflows (CSOs) within the entire Harbor Brook basin which handles sewage and stormwater flows from a total drainage area of 1,221 acres. On rare occasion, sanitary overflows from the Hillcrest and Brookside pump stations enter Harbor Brook as well. Each CSO is sized to handle flows from its respective drainage basin ranging from 6 to 350 acres. Flows from these drainage areas collect in a network of pipes that discharge into the Harbor Brook Interceptor Sewer (HBIS). Flows in excess of the HBIS are relieved through these CSOs; hence fouled waters enter the Brook. The HBIS runs from Velasko Road and terminates at the Harbor Brook Pumping Station, which discharges to the Main Interceptor Sewer (MIS), which flows to the headworks of the Metropolitan Syracuse Wastewater Treatment Plant (METRO). Treated water from the METRO is discharged into Onondaga Lake.

The watershed is approximately 8,234 acres and the area served by the CSOs is about 16 percent of the total watershed area. Except for small intrusions in the north and west-central part of the watershed, the area is classified as gently sloping to level. Maximum elevation is 1,340 feet at the southernmost tip of the watershed. Land use in the LHB is primarily urban; and the lower reaches of the watershed include areas of high density residential, commercial, and industrial land uses.

Harbor Brook is the main water body in the project area and is tributary to Onondaga Lake. This Brook contributes approximately two percent of the total annual water flows into the Lake. Microbiological quality in the Lake improves greatly as one moves away from the southern tributaries. However, the southern end of the Lake continues to have unacceptably high levels of indicator bacteria following storms.

The project area consists of CSO 063 at Emerson Avenue west of Harbor Street (137 acres), CSO 003 at Hiawatha Blvd (112 acres), and CSO 004 at State Fair Blvd (350 acres) and they are grouped together to form the LHB. Dry weather flows from CSO 063 are conveyed to a series of combined sewers that eventually connects to the CSO 003 regulator. Dry weather underflows are conveyed to their respective sewer line from either the CSO 003 or CSO 004 regulator to the HBIS. CSO 003 overflows are conveyed by a 42-inch outfall pipe that discharges to the Brook under Hiawatha Blvd. CSO 004 overflows are conveyed by a 48-inch outfall pipe that discharges to the Brook at State Fair Blvd. CSO 063 overflows are conveyed by a 24-inch by 36-inch culvert outfall that discharges into a low-lying area north of Erie Blvd.

Harbor Brook has three water quality designations as listed in 6 New York Codes, Rules and Regulations (NYCRR) Part 895.4. The Brook section within the project area is Class C, which must be suitable for primary and secondary contact recreation and fish propagation and survival. Of the major inflows to the Lake, this Brook ranks fourth as a contributor of phosphorus. Based on records from the County's Ambient Monitoring Program (AMP), the Brook's water quality conditions at Velasko Road and Hiawatha Blvd are poor during overflow events. Since the percent load on an annual basis is small, contribution of pollutants from Harbor Brook has the potential to affect the water quality and aesthetics in the near shore area of Onondaga Lake.

The Harbor Brook section of the project area is an urban stream that is channelized in some sections and directed underground, its water quality is affected by CSOs and urban runoff. The

water quality in the stream does not meet its designated uses for secondary contact recreation. The Brook's aquatic habitat is poor to non-existent and the riparian area is very narrow and degraded. The 2000 and 2002 Stream Visual Assessment Protocol results for the stream and habitat quality for the Harbor Brook section of the project area is poor based on its qualitative and quantitative assessment. Floatables and heavier debris diminish the aesthetic qualities of the stream.

Onondaga Lake and its watershed lie entirely within the Ontario Lowlands province. This area is characterized by glacial deposits and soils in the northern half of the project area are classified as urban, while the soils in the southern half have been so disturbed by human activities that further classification is nearly impossible. Drainage is generally good, with a small area of poorly drained soil in the northeast corner of the watershed. The southern half of the project area falls on soils classified mainly as Ontario-Hilton association. These soils are deep, well to moderately well drained, with high lime content and medium textured sub-soils.

Onondaga Lake and upland areas contribute or have contributed contamination to the lake system and are on the EPA National Priorities List. There are two NYSDEC-registered Inactive Hazardous Waste Sites within the Harbor Brook watershed: sites 7-34-030 (Onondaga Lake bottom) and 7-34-075 (Harbor Brook /Wastedbed B). These sites are located on the northern limits of the Harbor Brook watershed, along the southern shore of the Lake. The Syracuse Fire Training Center is included in the EPA's list of facilities handling hazardous wastes. This site is a former Class 2 Inactive Hazardous Waste site that has been remediated.

### **III. Purpose and Need for the Project**

The discharge of untreated sewage through CSOs to Harbor Brook affects the water quality of the stream and contributes to conditions where the bacterial levels measured in near shore regions of Onondaga Lake adjacent to the Brook exceed the fecal coliform bacteria standards set in 6 NYCRR Part 703.4. Exceedances of the bacteria standards occur during and subsequent to precipitation events that trigger operation of the CSOs. Coliform bacteria in water indicate the potential presence of pathogenic microorganisms associated with recent fecal contamination. When fecal coliform amounts in waters exceed ambient water quality standards, those waters are considered impaired for contact recreation. CSOs also contribute to the release of floating solids or "floatables" in violation of 6 NYCRR Part 703.2. These unsightly floatables (paper, cigarette butts, natural debris, tampons, fecal matter, etc.) are neutrally-buoyant materials that are carried along within the CSO flow and may be a source of pathogens and Biochemical Oxygen Demand (BOD). CSO related pollutants have a negative impact on the ecology of natural waters and contribute to problems in other areas of the environment.

In January 1998, litigation was settled between the State of New York, the Atlantic States Legal Foundation, and Onondaga County in connection with alleged violations of state and federal water pollution control laws. The Onondaga Lake Amended Consent Judgment (ACJ) requires the County to upgrade the METRO and conduct an abatement of the CSOs that occur in the METRO service area. Engineering improvements are required by the mandates of the 4th Stipulation of the ACJ to bring Onondaga Lake and its tributary streams into compliance with the requirements of the Clean Water Act. To meet these requirements to abate CSOs into the Brook, the proposed project will involve construction of conveyance and storage of overflows from CSOs 003, 004, and 063 (future connection) up to the 1-year, 2- hour design storm in a lower basin storage facility. As part

of the Onondaga Lake improvements under the ACJ, the LHB CSO Storage Facility and Conveyance project is one of the many components of the Harbor Brook CSO Abatement project. The other two components are the HBIS Replacement and Floatables Control Facilities.

#### IV. Detailed Description of Selected Plan

The LHB CSO Storage Facility and Conveyance project involves constructing a 4.9 million gallon (MG) CSO storage tank on a lot off of Rusin Avenue. The storage tank will address the overflows from CSO's 003, 004, and 063 (future connection) up to the 1-year, 2-hour design storm event. The 150-foot diameter by 57-foot (+/-) high storage tank will be mostly buried below ground with approximately 8 feet of the structure extending above ground. A brick exterior wall structure with a flat sloped roof will be constructed to enclose the storage tank. The sloped roof will collect rainwater and channel it to a 76,000-gallon storage unit on the roof to be used for flushing. A 1,600-square foot one-story Utilities Building consisting of brick exterior will be constructed over a pile foundation to the east end of the tank to provide entry access to the tank and house the ancillary systems. The building will provide equipment storage for the tank, and will include the electrical and mechanical rooms, and a small office space for the operations staff. An odor control unit will be constructed on a pad and an emergency generator will be provided for back-up power (Figure 3).

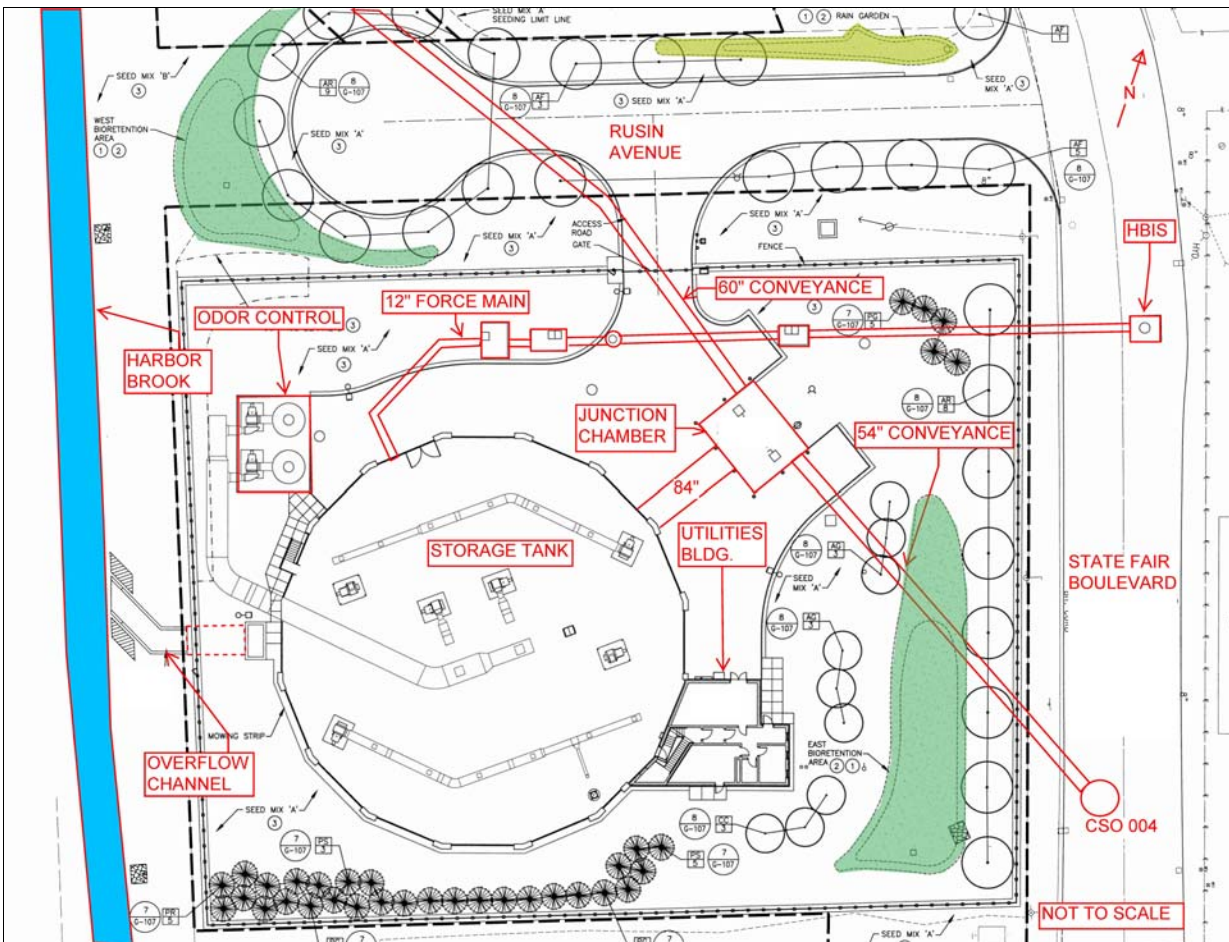


**Figure 3. CSO Storage Facility**

The storage tank will consist of a circular slurry (diaphragm) wall construction utilizing “soil modification,” a more environmentally friendly method than the commonly used cast-in-place concrete forms. The bottom of the tank will be constructed with an anchored concrete base slab. Grit removal, ventilation, and odor control technology will be part of the storage tank design. A concrete junction chamber of approximately 34 feet long by 27 feet wide and 26 feet deep will be

constructed below grade just northeast of the storage tank. The junction chamber will consist of five storage chambers within the overall structure. During smaller storm events, flows will enter the first chamber where grit and solids settle for removal. Entrance to the second chamber will consist of mechanical sluice gates to allow flows through the 24-inch pipes that lead to the storage tank. During larger storm events, flows will fill the first two chambers and enter the fifth chamber prior to flowing through the 84-inch diameter by 38-foot long pipe connecting to the storage tank.

A 48-inch and 54-inch diameter high density polyethylene (HDPE) conveyance pipeline of approximately 435 linear feet will be installed to convey sewer overflows from CSO 004 to the junction chamber. A 60-inch and 54-inch diameter HDPE conveyance pipeline of approximately 925 linear feet will be installed to convey sewer overflows from CSO 003 to the junction chamber (Figure 4). CSO 003 will have a pipe stub for the CSO 063 connection to be completed in the future. Easements have been obtained from the adjacent parcel owners to install the conveyance pipes. These conveyances will also include new CSO regulator manholes and flow monitoring devices.



**Figure 4. CSO Storage Tank and Conveyance Layout**

The tank floor will slope two percent to a 4-foot wide perimeter drain, which will also be sloped to direct untreated water to a wet well. CSO overflow will be pumped out of the well via 12-inch dewatering pumps and force main to transfer its contents to the HBIS and then to the METRO. The storage tank will also have a center flushing system for cleaning its interior after overflow

events. The central flushing system is to be installed at the bottom center of the tank and will use the CSO effluent flows for the initial cleaning flush, if available, and captured rainwater from the roof will be used for the second and third flush, followed by potable water for a supplemental or final interior wash down, as needed if rainwater amount is not sufficient. Odor control facilities will operate at maximum capacity during a CSO event and to lesser extent after tank cleaning.

A sanitary sewer lateral from the Utilities Building and odor control vessel drains will carry wastewater to the HBIS. In the event that the storage tank reaches capacity, there will be an 8-foot by 4-foot high weir structure at the storage tank outlet for overflows, which connects to an outfall channel to Harbor Brook.

## V. Estimated Project Costs

TABLE 1 – TOTAL PROJECT COST (2011)	
Clean Water State Revolving Fund C-76320-12-01	\$17,786,000
US EPA Grant XP 972606-05	\$15,800,000
<b>TOTAL</b>	<b>\$33,586,000</b>

## VI. Evaluation of Alternatives

To meet the ACJ requirements, a storage facility is required to accept overflows from CSOs 003, 004, and 063 from the 1-year, 2-hour storm until the HBIS has sufficient conveyance capacity to convey these flows to the METRO.

### A. No Action Alternative

Under the “No Action” alternative, combined untreated wastewater and stormwater from CSOs will continue to flow into Harbor Brook. This contributes to high coliform levels and floatable solids, which eventually flows into Onondaga Lake. Onondaga County is required, under the terms of the ACJ, to “design, construct, maintain, and modify and/or supplement, as necessary, a CSO control and upgrade program in accordance with NYSDEC CSO guidance.” The “no action” alternative would be in violation of the requirements of the ACJ. Without CSO remedial actions in Harbor Brook, the County will not come into compliance with provisions of the New York State (NYS) Environmental Conservation Law or the Clean Water Act.

### C. Site Alternatives

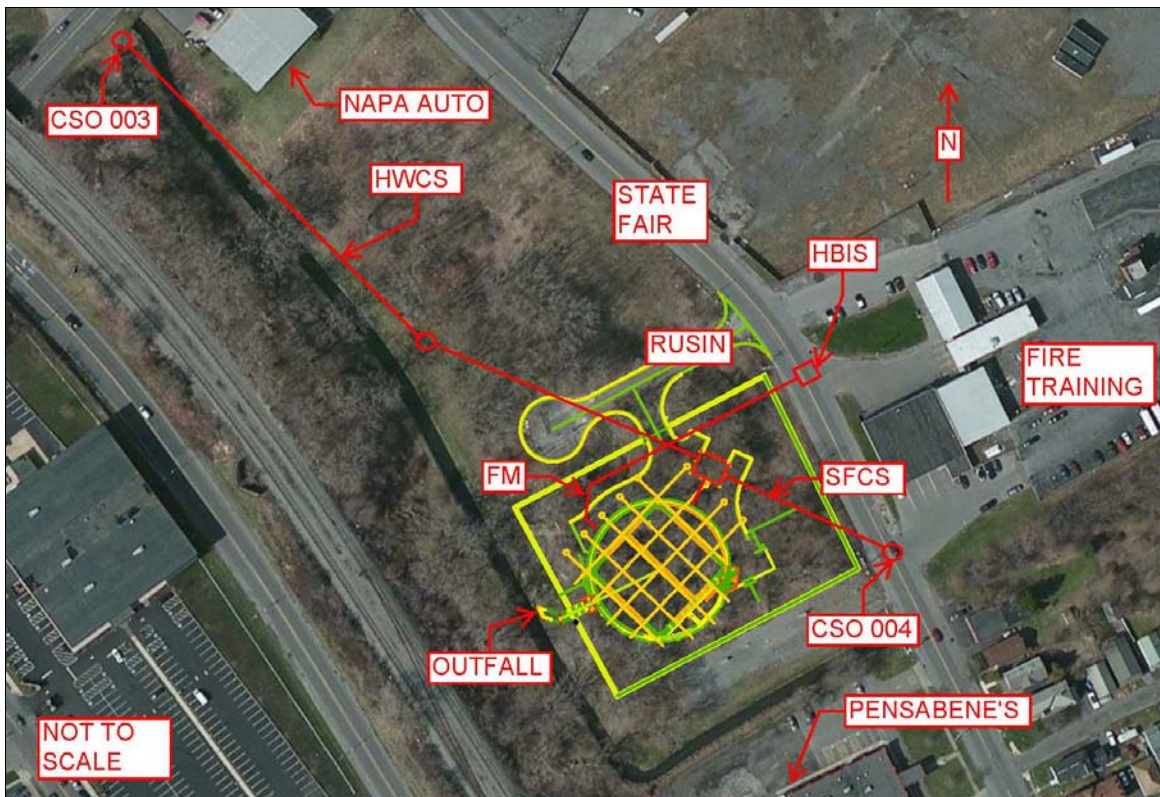
To comply with the ACJ, site criteria includes engineering/operational considerations such as proximity to the METRO, subsurface characteristics, proximity to Harbor Brook, CSO distance, HBIS capacity, floodplain impacts, topography, existing utilities and structures present, site contamination, accessibility, and opportunities to close or consolidate CSOs.

Fifteen potential sites were evaluated as part of the LHB CSO Abatement project for the proposed storage tank, utilities building, and conveyances. Sites 1 through 13 were carefully evaluated, but rejected for consideration due to the following reasons: insufficient lot size, remoteness from existing CSO locations requiring extensive conveyances, previous land contamination, too close to residences and businesses, lot may be better suited for floatables control facilities, inside the Harbor Brook 100-year floodplain, removing a green space, risk of

damaging existing water main structures, and ground elevations requiring pumping.

Two candidate sites were recommended for further evaluation. Residence/business density and distance to the site, public facilities and community enhancement opportunities, site availability and usage, and engineering/operational considerations were the criteria used in this evaluation.

The second site is located on the corner of Delaware and Grand Avenue in close proximity to CSO 014, which is the largest CSO contributor in the upper basin. This site is undeveloped, vacant, easily accessible, and adjacent to commercial and limited residential areas. Harbor Brook and the connection to the HBIS are nearby. This site could be used to build a new recreational or educational facility for nearby schools. These characteristics make this site a highly suitable location for an Upper Basin Facility to be constructed in the future.



**Figure 5. Project Site Plan**

The selected Rusin Avenue site is much more suitable for construction of the Storage Facility. This site is relatively large, located in close proximity to CSOs 003 and 004 and adjacent to Harbor Brook and the HBIS. There are no significant impacts to environmental sensitive areas as discussed in the next section. For these reasons, this is the preferred site for this project (Figure 5).

#### **D. Storage Facility Technology Alternatives**

The primary design parameter of the storage facility is the cleaning efficiency of the tank, with the goal of using CSO water for the first cleaning flush. Compartmentalizing the tank provides efficient cleaning, allowing smaller storms to fill a smaller area and not requiring cleaning of the entire tank.

Storing rainwater for the second flush was also considered, while evaluating the different tank storage configurations. The use of steel-bolted, glass-lined storage tank and a conventional pre-cast circular storage tank were eliminated from consideration because they are not compartmentalized. Future electrical cost required to operate the storage facility is a major consideration. Alternatives evaluated were based on geotechnical considerations, cleaning functionality, appearance, electrical usage and overall construction cost.

1. Above Ground Pre-stressed Circular Tank with Circular Inner Tank - A pre-stressed circular tank could most effectively be compartmentalized by constructing a smaller circular tank within the outer tank to effectively capture the CSO flows in one or two compartments, eliminating the need for the entire tank to be cleaned. With this design, the inner tank would fill with CSO first, spilling into the outer tank during larger storms. The inner tank contents would be released first to the HBIS. Flushing gates, evenly distributed along the inner tank wall, would then be opened to allow CSO from the outer tank to flow into the inner tank, providing initial cleaning. If stormwater were used for a second cleaning flush, it would require an additional storage tank on site. This option was rejected because there will be dead spaces between the flushing gates, which requires additional cleaning. Additionally, smaller storms would not fill the outer tank, leaving it clean, but without providing CSO flushing water for the first flush of the inner tank. This alternative was rejected because the majority of the storms could not utilize CSO water for the first cleaning flush.
2. Above Ground Cast-in-Place Rectangular Tank with Flushing Lanes - A rectangular storage tank can be compartmentalized into several long and relatively narrow chambers with a flushing chamber at the head of each chamber. As the CSO water fills the first lane and associated flushing chamber, additional flushing lanes and chambers will fill depending on the size of the storm event. Once the tank has emptied, the flushing gates will open providing initial cleaning of its associated flushing lane. Stormwater will then be used to fill the flushing chambers of the CSO impacted lanes, providing a second cleaning flush. Stormwater storage can be incorporated into the design of the tank, eliminating the need for an additional structure. Although its construction cost is low, this alternative was rejected due to its very high operational costs from high electrical demand and usage.
3. Below Ground Circular Tank with Flushing Lanes (Slurry Wall) - This alternative uses in-the-wet construction to construct a below ground circular tank with a tremie slab floor. Internal cast-in-place walls would be constructed in a circular fashion to enclose the tank. The central flushing system is installed in the center and the cleaning of the tank interior would operate as described in Section IV. This alternative is selected due to its least expensive construction and operational costs while providing the most sustainable operation with least aesthetic impact.
4. Below Ground Rectangular Tank with Flushing Lanes - This alternative uses in-the-wet construction to construct three overlapping below ground rectangular tanks and a tremie slab floor. Cast-in-place walls would need to be constructed to form the outer walls of the storage tank. Internal cast-in-place walls would be constructed to provide compartmentalization, flushing lanes and flushing chambers. The flushing and cleaning would operate as described in Alternative 2 above. Some of the space between the shaft walls and the external tank wall

would be utilized to provide stormwater storage and access to the bottom of the tank. This alternative was rejected due to the second highest construction costs.

5. Tunnel - Approximately 3,600 feet of a 14-foot diameter tunnel to be constructed to transport flows from the CSOs 003 and 004 junction to the METRO. The CSO 003 conveyance would be slightly shortened, while the CSO 004 conveyance would be lengthened to reach this juncture, which generally results in a 700-foot increase to the length of conveyances required. A pumping station at the METRO would be required to lift the flows to the treatment plant. This option was rejected due to the highest construction costs over the other alternatives.

## **VII. Environmental Consequences of the Selected Plan/Mitigation Measures**

### **A. Groundwater & Surface Water**

Water quality and habitat conditions of Onondaga Lake have improved over the past decade. However, the habitat conditions for aquatic life in LHB remain highly degraded due to the effects of channelization and the highly urban landscape. By removing a major percentage of the CSO discharges that currently enters the Brook without any treatment, the concentration and loading of organic solids, bacteria, and floatables will be significantly reduced. This project, along with the abatement of other CSOs, will continue to help improve water quality, habitat, and aesthetic conditions within both Harbor Brook and Onondaga Lake.

This project will reduce the concentration of phosphorus and its annual loading to the Lake. Because the Brook represents a small percentage of the hydrologic load, the reductions achieved with this project are not likely to affect the relative contribution of phosphorus to the tributaries, nor are they likely to reduce the phosphorus concentrations in the Lake.

Macroinvertebrates are good indicators of water quality conditions and as part of the ACJ, the County is required to monitor and assess the macroinvertebrate communities of tributaries to the Lake by collecting stream samples during rainstorms and snowmelts. Water quality monitoring has documented that most of the pollutants enter the Lake during these infrequent high flow periods. The Brook's water quality and aquatic habitat conditions will continue to be monitored as part of the County's AMP through the term of the ACJ to assess the effectiveness of the CSO Abatement project. Annual reporting of facility performance and discharges are likely to be required components of the METRO State Pollutant Discharge Elimination System (SPDES) permit for the Storage Facility.

There is potential that during the construction phase, soil erosion and sedimentation could temporarily degrade the Brook's water quality if proper controls are not utilized. Spills in the construction areas, especially of petroleum products, could also affect the water quality.

Contractors will be required to implement the Erosion and Sedimentation Control (E&SC) and the Stormwater Pollution Prevention (SWPP) Plans, which protect the surface water quality during construction (see Section C). The approach to stormwater management will include the use of temporary erosion and sediment control and permanent stormwater practices, such as water quality/quantity wet basin, vegetated buffers, and capture of roof runoff for reuse.

Groundwater within the LHB site has a high chloride concentration and is subject to discharge limitations. There are plans to puncture the artesian aquifer to release pressure prior to installing the concrete floor. The County has been granted approval for removing the groundwater from the site via dewatering activities. This groundwater will be conveyed to the County's sanitary sewer system as a mitigation measure to reduce in-stream chloride concentration. The Contractor will be responsible for complying with the OCDWEP's "Procedures Governing the Acceptance and Treatment of Groundwater and Other Contaminated Wastewater" requirements and specific permits issued. It is anticipated that there will be times during high stream flow events that the sewer system may not have capacity to accept discharge from dewatering activities. Therefore, the Contractor may have to either suspend dewatering operations or provide alternate means of storing groundwater during these high flow periods.

Since impacts to groundwater levels are expected to be minimal from dewatering and/or other site activities, it is anticipated that surface waters in the general project area would not likely be impacted by this project. Consequently, significant alterations to surface water bodies and/or changes to existing stream or river courses are not expected.

## **B. Population**

Population statistics for the LHB project area and the City of Syracuse are based on the 2000 U.S. Census data. The approximate population within the LHB project area was 3,844, where approximately 24% are considered minorities (non-white). Within the City, the population is 147,306 people, where minorities make up 36% of the total population. The City has lost about 10% of its population since 1990, when it had approximately 163,860 people.

## **C. Soils & Vegetation**

Impacts from this project to the geology and soils in the area will be the result of the required excavation activities. Direct soil related impacts will be short-term and limited to the construction phase. The project area has a slight to moderate soil erosion potential and significant erosion or siltation within or outside the project area is not anticipated.

All site activities will be compliant with the County approved E&SC plan and will be a requirement for all contractors. The plan will include use of industry specific and accepted standard techniques such as the use of silt fences, hay bales, temporary sediment basins, and seeding after project completion. Additionally, E&SC measures will stabilize exposed soil and provide a final cover of native vegetation on post-construction slopes.

The vegetative cover type within the site is classified as a Cultural Terrestrial community according to the NYSDEC Natural Heritage Program standard designations. Trees in the project area are characterized as non-native and invasive Norway maple (*Acer platanoides*), white mulberry (*Morus alba*), and tree of heaven (*Ailanthus altissima*). A wide variety of weeds and smaller vegetation are widely distributed throughout the site, including lichens, mosses, and terrestrial algae.

It is expected that vegetation within the site will be disturbed, but this disturbance will be short in duration and be restricted to the construction phase. These will include disturbance and/or

removal of vegetation along conveyance routes and for the construction of the Storage Facility. The approximate area of vegetation removal is 3.1 acres. Vegetated areas that are not parts of the construction project will be avoided and damage and/or removal of existing vegetation are to be restored to its full extent. These are some best practices to be followed during construction.

All disturbed areas will be restored to pre-project conditions or better. The landscaping design plans for over 65 new trees and numerous shrubs, sedges, and perennials to be planted around the site. Disturbed areas not paved over will be seeded and/or replanted to restore or improve vegetation to pre-construction standards. Native species of vegetation will be used. Some areas disturbed during construction, such as the overflow outfall, will be covered with stone and/or rip-rap and, therefore, will not be reseeded/replanted.

#### **D. Wildlife**

The fauna observed in the LHB area included species typical of an urban environment, including American Robin, Mourning Dove, Rock Dove, Mockingbird, Upland Sandpiper, Killdeer, Common Nighthawk, House Sparrow, Chimney Swift, gray Squirrel, Norway rat, White-tailed deer, and rabbit. Characteristic fauna associated with the cover type include a wide variety of insects and small vertebrates. Nooks and crannies may provide nesting habitat for birds and insects, and roosting sites for bats. Since existing fauna is representative of species that are very tolerant to human induced disturbances, they are expected to continue to be found in the project area after completion of this project.

The project site is located in an extensively developed urban area, so there is limited wildlife and wildlife habitat present; therefore, it is expected that there will be no long-term wildlife impacts by the proposed construction activities. In the short-term, any residual wildlife present in the project area will distribute due to human activities, which will be short in duration and limited to the construction phase.

#### **E. Threatened and Endangered Species**

A July 31, 2003 letter from the U.S. Fish and Wildlife Service (FWS) stated that “except for occasional transient individuals, no federally listed endangered or threatened species are known to exist in the project impact area.” Further, a July 29, 2003 letter from NYSDEC Natural Heritage Program (NHP) states that, there are “no records of known occurrences of rare or state listed animal or plants, significant natural communities, or other significant habitats, on or in the immediate vicinity” of the project area. Additionally, the July 31 FWS letter states, “no habitat in the project impact area is designated or proposed” as critical habitat.

Due to the significant time lapse, another review of the project’s potential to affect threatened and endangered species was conducted. Based on the information provided by the FWS, four potential federally listed species are known to occur within Onondaga County including American hart's-tongue fern (*Asplenium scolopendrium var. americana*), bog turtle (*Clemmys muhlenbergii*), Eastern massasauga (*Sistrurus catenatus catenatus*), and Indiana bat (*Myotis sodalis*). In addition, Onondaga County is also now known to provide habitat for the bald eagle (*Haliaeetus leucocephalus*), which has been delisted from the Endangered Species Act.

However, eagles are afforded protection under the Bald Eagle and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Each of the species listed above requires specific habitat for survival. As such, an assessment of the project's ecological communities was conducted to determine whether appropriate habitat for these species exists.

Based on screening for potential habitat present within the project area, applicable habitat does not exist for the American hart's-tongue fern, bog turtle, or Eastern massasauga. Based on the screening results, it is determined that the project should have no effect to these species. There is no bald eagle foraging habitat present in the project area; therefore, no bald eagle management plan is needed.

According to FWS guidance, the project area is located less than 10 miles from the Jamesville hibernacula. There is potential for Indiana bat habitat to be present due to a few trees with broken limbs, and a few dead or dying trees with crevices that could be used by Indiana bats for roosting. However, trees with exfoliating bark were not observed. In general, it is noted the site could provide foraging opportunities with openings that could be used by bats as flyways for foraging activities. Harbor Brook provides an excellent insect population as well. As a result, suitable foraging habitat for Indiana bat is provided at the site.

Based upon previous Indiana bat assessments for projects located within the City of Syracuse, these bats are not known to utilize the City for either roosting or foraging. There is potential for suitable habitat to exist within the project limits, but the likelihood of Indiana bats using the area is limited. However, to avoid direct impacts to potential Indiana bats, all tree clearing will occur when bats are in their hibernation period. Furthermore, the July 20, 2011 Nationwide Permit (Nos. 3, 7, and 12) issued by the U.S. Army Corps of Engineers contains a special condition from the FWS to avoid cutting trees during the restriction period between November 15 and March 31. This permit is valid until March 18, 2012. Given the proposed tree clearing restrictions, along with the project location within the City, it is determined that project activities may affect, but is not likely to adversely affect Indiana bats.

#### **F. Traffic**

The proposed project is not anticipated to have significant adverse long-term impacts to surrounding roadway networks. However, there will be short-term traffic impacts during the construction phase. Approved Maintenance and Protection of Traffic (MPT) plans will be implemented for traffic control. Access to all local businesses will be maintained throughout construction. Main construction traffic will enter and exit the general area from NYS Route 690 ramps along the State Fair Blvd extension or the Interstate 81 off ramp to Hiawatha Blvd.

Lane closure or lane reduction is anticipated for approximately six to eight weeks at State Fair Blvd and Hiawatha Blvd. There is the possibility to maintain directional traffic with one lane open at a time during installation of conveyance pipelines. Alternative access routes and/or detours around construction will be approved in advance and appropriate signage will be posted to redirect vehicular traffic if congestion does occur. Local media will communicate alternative routes and/or detours to businesses and residences.

#### **G. Coastal Resources**

This project is not located within a state-designated coastal zone; consequently, coastal resources will not be affected by this project.

#### **H. Wild and Scenic Rivers**

There are no designated wild or scenic rivers in the area of the proposed project.

#### **I. Noise**

While the noise produced by construction activities will likely have a short-term impact, a noise control plan will be implemented during the construction phase. The City's Noise Control Ordinance prohibits construction activities between the hours of 9:00 pm and 7:00 am Monday through Saturday, and during any time on Sundays and holidays. In addition, use of power tools in residential neighborhoods is prohibited between 9:00 pm and 8:00 am.

Predominant noise in the project area is from vehicular traffic and much more noticeable during peak traffic hours. Minimizing noise levels from construction equipment will be required by properly equipping construction machinery with noise attenuation devices (i.e., mufflers). Noise from blasting impacts may need to be minimized by implementing precautionary measures, including blasting mats. If necessary, a blasting plan will be developed and will comply with the local blasting ordinance.

No significant adverse long-term noise impacts are anticipated due to the proposed project. Noise impacts will occur during wet weather events when the facility is operational. Pickup trucks, panel trucks, dump trucks, and/or sewer jet-vac trucks could be dispatched to the facility during wet weather. Noise from these vehicles would blend in with ambient traffic noise.

Facilities and equipment will be designed, constructed, and maintained to minimize noise. Landscaping and site grading will consider noise buffering as a design criterion. The Storage Facility will house most noise-producing equipment and will be constructed with sound proofing, however, the odor control units will be outdoors. With the odor control unit blowers operating there will be noise, but this will only occur during wet weather events. All overhead doors will remain closed under normal operations.

#### **J. Cultural Resources**

The site is within the CSO Abatement project area, which would encompass parts of the City that were occupied since the 17th century. These areas were also within the center of Onondaga territory. For these reasons, sensitivity to historical/archeological deposits in the area is high.

A full Phase I cultural resource assessment was completed for this project and Phase 1A results showed that “there is possibility of archaeological deposits relevant to pre-contact Native Americans, 17th century French presence, and 19th century development of the Village and City of Syracuse is considered moderate to high.”

A January 2007 Phase II study concluded that there are no cultural resources present at the site and recommended that no additional archeological excavation investigation be conducted. The

State Historic Preservation Office (SHPO) concurred with these findings in their letter of June 10, 2009. The December 21, 2010 response letter from SHPO indicated that based upon its review of the OCDWEP's November 18, 2010 letter clarifying project modifications, the proposed project would have "No Effect" upon cultural resources on or eligible for inclusion in the National Register of Historic Places.

#### **K. Aesthetics**

The architectural details of the Storage Tank and Utility Building will consist of brick exterior facade, which ties in the tank piers to lessen the visual impact. This facility will be architecturally designed to fit in with the commercial area consisting of masonry block construction, including Pensabene's Casa Grande nearby. The CSO conveyance system placed below ground will not produce adverse visual impacts. The vacant lot to be used for the proposed facility will be eliminated and the new Storage Facility will be an improvement from present conditions with respect to fencing, attractive landscaping, sidewalks and lighting, and maintenance. The proposed action will have no adverse impacts on visual resources in the area.

#### **L. Wetlands & Floodplains**

Based on the FWS' National Wetlands Inventory (NWI) maps, a palustrine forested broad-leaved deciduous seasonally flooded wetland exists within the watershed. More specifically, this wetland is located between Holden Street and Velasko Road, in the most upstream area away from the site. This wetland will not be impacted by project activities. Four NYSDEC Class 2 and 3 mapped wetlands are within the watershed. This project will not be located in these NYSDEC wetlands. However, a wetland located at the outlet of Harbor Brook, adjacent to the Lake, would benefit from any improvements in the stream's water quality.

The estimated 100-year flood elevation is 377 feet according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the City of Syracuse. The odor control pad elevation and finished floor elevation for the Utilities Building is 378 feet, which is consistent with the 10-States Standards for flood protection. The footprint of the proposed Storage Facility and the odor control unit will be outside the 100-year floodplain boundary. The 500-year flood elevation according to the FIRM is 378 feet. The top of the covered storage tank is 382 feet, so there will be no overtopping. However, the Storage Facility and the odor control pad are in the 500-year floodplain, the boundary of which extends past State Fair Blvd into the Fire Training Complex. Consequently, these structures will withstand the 500-year flood level, but the Storage Facility would not be expected to function under these conditions.

There will be a stream crossing required for the installation of the CSO 004 conveyance line under Harbor Brook. The crossing will consist of trenchless jack and bore method (casing and carrier pipe construction) to minimize disturbance to Harbor Brook. This crossing and the other conveyance lines will be installed approximately 10 to 20 feet below the ground surface. A joint permit was issued for this work by the NYSDEC and the U.S. Army Corps of Engineers.

#### **M. Land Use**

The project area within the lower half of the Harbor Brook watershed is urbanized. The

property is zoned as "Industrial District - Class A." The area surrounding the proposed action is primarily classified as high intensity residential, with some commercial, industrial, and transportation areas. In addition, there are pockets of low intensity residential, residential, and recreational areas. Mixed evergreen and deciduous forests make up about 2% of the area.

Construction of the proposed project is anticipated to have no direct impact on land use and zoning in the project area. The proposed action is intended to have a positive impact on the site as supported by the installation of the CSO Storage Facility. Future land use and/or zoning changes as a result of this action will be subject to separate local environmental review.

#### **N. Agricultural Lands**

The project area is currently urbanized; there is no prime agricultural land that could be impacted by the proposed project.

#### **O. Local Air Quality**

Potential impacts on local air quality will be limited to emissions, including dust, and odors associated with the construction. Use of construction vehicles and equipment for excavation and movement of material and installation of the CSO Storage Facility and Conveyances will create local and short-term emission and dust impacts.

Construction vehicles must comply with emissions standards. Contractors will be responsible for maintaining their equipment and instituting practices that will minimize emissions, such as prohibiting unnecessary idling of vehicles and other equipment. Dust related concerns may be abated by covering and/or wetting dirt piles, strategic placement of fill material, application of wetting or stabilizing agents, requiring the use of covers for trucks moving dirt, and other practices. The County will work with contractors and the affected public to minimize dust related and any air quality impacts from construction activities.

#### **P. General Conformity & Greenhouse Gases**

Since this project is located in Onondaga County, it is part of the Onondaga County carbon monoxide (CO) maintenance area. Because the project is federally funded through a grant, the project is subject to the general conformity regulations (40 CFR 93 Subpart B). As CO is a directly-emitted pollutant with no identified precursors, the amount of directly emitted CO from construction activities must be quantified for the project.

The general conformity rule identifies "de minimis levels" (40 CFR 93.153(b)(1)), or emissions threshold values below which projects are presumed to conform without further mitigation of emissions or other action on the part of the project sponsor. These de minimis levels are based on annual pollutant emissions; therefore, emissions are determined by year. In the analysis, only the CO emissions from the construction part of the project are considered. The de minimis level for the Onondaga County maintenance area is 100 tons per year of CO. Construction emission estimates were based on emission factors taken from a number of sources and vehicle/equipment types and activity levels supplied by the project sponsor. Table 2 shows the results of the general conformity applicability analysis for each construction year for CO emissions for off-road and on-road equipment.

<b>TABLE 2 - CARBON MONOXIDE (CO) CONSTRUCTION EMISSIONS SUMMARY</b>				
<b>YEAR</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>TOTAL</b>
<b>OFF-ROAD (tons)</b>	0.493	1.619	0.429	2.541
<b>ON-ROAD (tons)</b>	0.023	0.622	0.012	0.657
<b>TOTAL EMISSIONS (tons)</b>	0.517	2.241	0.441	3.198
<b>% of THRESHOLD</b>	0.52	2.24	0.44	3.20

Emissions of CO for construction years of 2011, 2012 and 2013 are below the applicable de minimis threshold values; therefore, the project is presumed to conform and no further action is necessary. Carbon dioxide (CO<sub>2</sub>) emissions were also calculated to assess direct greenhouse gas emissions from construction equipment for this project. CO<sub>2</sub> emissions from construction activities are approximately 936.4 tons as summarized in Table 3.

<b>TABLE 3 - CARBON DIOXIDE (CO<sub>2</sub>) CONSTRUCTION EMISSIONS SUMMARY</b>				
<b>YEAR</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>TOTAL</b>
<b>OFF-ROAD (tons)</b>	156.734	608.276	161.119	926.13
<b>ON-ROAD (tons)</b>	0.438	9.638	0.218	10.29
<b>TOTAL EMISSIONS (tons)</b>	157.172	617.914	161.337	936.42

Additionally, EPA conducted a greenhouse gas analysis of this project by evaluating the indirect emissions from facility operations (40 CFR 93.152). The estimated annual CO<sub>2</sub> equivalent is approximately 204 tons, which was calculated based on approximately 273,791 KWh/year of electricity required to operate the dewatering pumps, chopper pump, odor control system, and other electrical components during CSO flow events using the Storage Facility.

#### **Q. Odors**

The proposed CSO improvements will produce far less odors and be less objectionable than the existing conditions. The objective of this project is to remove a mixture of stormwater and wastewater that currently enters the Brook untreated. As such, this project will contribute to the elimination of odors associated with current CSO practices. Pensabene's Casa Grande, which is adjacent to the project site, could be impacted by odors from the storage tank if not mitigated by odor control systems, negative air pressurization, and complete closure.

Odors associated with CSO operations could become problematic if left unmitigated when the supply of oxygen is depleted in the wastewater due to microbial decomposition. The odor control system will consist of activated carbon units installed on a pad, similar to the Clinton Storage Facility. Air flow from the storage tank will be directed through ductwork and blowers into the odor control vessels. An odor control operational plan will be implemented. The County will obtain an Air Facility Registration from NYSDEC, which documents that odor control units are to be used at the CSO Storage Facility.

#### **R. Sole Source Aquifer & Protected Wells Heads**

The February 24, 2004 letter from the Onondaga County Health Department letter states that there are no public wells in the watershed. The area is served by public water from either the

City or Onondaga County Water Authority. The project site is not located over a primary, principal, or sole source aquifer. There are no designated protected well heads in the area.

### **S. Sustainability & Greening Measures**

Since inception of the CSO Abatement project, the County continues to implement sustainable solutions to correct CSO problems to improve the Lake and Brook water quality. An amendment to the ACJ also requests system-wide green infrastructure to provide a sustainable reduction in combined sewage overflows. Additionally, the County has until 2013 to complete the major "gray" infrastructure projects, and until 2018 to complete "green" infrastructure projects and other remaining "gray" projects that may be required to meet the intent of the ACJ.

Over 30 combined sewage overflow related projects throughout the City's CSO service area focused on capture or treatment of combined sewage overflows were completed. With each percentage point representing about 40 million gallons of combined sewage, the County is now eliminating or capturing 84.6 percent of sewer overflows by volume on a system-wide annual basis, which is a significant improvement from the 74 percent capture from the time ACJ was signed. With the completion of Stage 1 "gray" infrastructure projects over the next two years, including the Midland 044 Sewer Extension, Clinton and Harbor Brook CSO Storage and Conveyances projects, capture is expected to reach 89.5 percent by volume. To reach a higher level of sustainability, subsequent stages of correcting existing systems are projected to achieve a goal of 95 percent capture through elimination or treatment by 2018.

Green measures, including green infrastructure, will be incorporated into this project as well as the CSO Abatement project. Rainwater will be captured on the storage tank and Utilities Building roof and stored in a separate holding tank for storage tank interior washing. To promote stormwater runoff source management, a SWPPP and E&SC plan has been prepared for this project. Two bioretention basins and a rain garden will be constructed within the project site as part of an effort to preserve and create natural landscape to capture stormwater drainage and treat it as a resource. Use of recycled materials and to recycle material generated onsite will be promoted throughout this construction project, including the safe reuse and recycling of construction wastes. Demolition debris will be brought to a local collection or transfer station for recycling activities or stockpiled to be recycled onsite. The use of low emissions technology and fuels in construction equipment will be encouraged throughout the project. Green building practices will be built into the Storage Facility including energy efficiency, water conservation, and healthy indoor air quality. The use of environmentally friendly landscaping will enhance and preserve natural resources. Lawn areas will be planted with low maintenance "No Mow" certified grass-seed blend.

A partnership composed of the SUNY College of Environmental Science and Forestry, OCDWEP, Atlantic States Legal Foundation, and the City of Syracuse will construct treatment wetlands along Harbor Brook, using the area currently designated as Velasko Road Detention Basin. The construction of this wetland would have incorporated two different designs, allowing investigators to assess the efficacy of constructed/restored wetlands to remediate stormwater runoff and CSOs in the urban sectors of the City. The proposed project would have had no adverse impacts on this created wetland since this pilot project is part of the green

infrastructure improvements plan outlined in the ACJ.

Beside this project, many sustainable and innovative green infrastructure projects are in progress or planned for the City within the Harbor Brook drainage basin under the "Save the Rain" campaign as indicated in the website, <http://savetherain.us/>. These environmentally conscious projects include greenways, porous sidewalks/pavement, pervious parking lots, rain gardens, bioretention basins, bioswales, tree plantings, green roof structures, and similar green infrastructure improvements.

#### **T. Induced Growth**

The project is designed to address existing combined sewage overflow and not induce primary or secondary growth within the LHB area within the City of Syracuse.

#### **U. Indirect and Cumulative Impacts**

The National Environmental Policy Act requires the consideration of past, present, and reasonably foreseeable actions that may also affect area resources in addition to direct and indirect project impacts. Cumulative impacts can result from the combined impacts of two or more projects on a particular resource such that the environmental impacts are potentially additive. Cumulative impacts can result from individually minor but collectively significant actions taking place over time. To comply with the ACJ, actions to resolve CSO issues have been implemented, are under current planning, or are anticipated in the near future.

With the HBIS project, supported by American Reinvestment Recovery Act funding, near completion, there still will be major construction activities related to the CSO Abatement project occurring simultaneously over the next two years. Besides this project starting in late 2011, there is also the Clinton CSO Storage Facility project with a 4 month overlap with the Midland CSO 044 project, which is scheduled for completion by the end of 2011. The CSO 022 and 045 Sewer Separation project will also take place in the Midland and Clinton areas. From 2012 to 2018, "Save the Rain" green infrastructure projects will be scheduled for commencement.

The ACJ required the County to complete a facilities plan to reduce the amount of floatables discharged from CSOs to Harbor Brook and Onondaga Creek. Floatable Control Facilities (FCFs) will be an in-water capture system to remove floatables similar to the Harbor Brook in-water system, which is under review by the NYSDEC for implementation. The CSO 063 conveyances and connections will be completed under the FCF projects. Cultural resources are a concern with LHB area and must go through the cultural resource review process for FCFs.

Other construction projects with the LHB outside the CSO Abatement project area include the Fowler High School renovation, which is being coordinated with the completion of the HBIS. Lake remediation under Honeywell is occurring predominately along the shoreline at the mouth of Harbor Brook on the very northern end of the basin. Light construction within the LHB includes green infrastructure improvements such as the Delaware Rain Garden and streetscapes. As the LHB is already a largely developed urban setting, the implementation of these future projects will not result in any significant additional impacts to environmental resources.

Construction activities are generally short-term and temporary in nature and do not usually cause permanent adverse environmental impacts. These short-term projects are considered remote from each other in terms of noise, dust, emissions, and traffic related impacts from construction activities.

The City, County, NYSDEC and other regulatory agencies will require that all future projects contain mitigation measures and/or permits to address traffic, soil erosion, stormwater runoff, groundwater and surface water quality, air quality, and construction noise. If a project requires tree removal, contractors will adhere to the seasonal restrictions in Section E. Applicable greening measures in Section S will be implemented in all future construction projects.

**V. Environmental Justice**

The Region 2 Environmental Justice (EJ) Analysis supports EPA Region 2’s Interim Policy (IP) for Environmental Justice. The specific community that is under evaluation for inclusion in the EJ program is referred to as the Community of Concern (COC) in the IP. The evaluation process hinges on the comparison of the respective levels of the environmental burden and the minority and low-income representation between the COC and its statistical reference area, NYS.

For the environmental burden analysis, Region 2 advances the concept of an “Environmental Load Profile (ELP).” The profile would provide a representation of the environmental load (i.e., relative environmental burden) within a community. The ELP serves to identify communities that may bear a disproportionate environmental load in comparison to statewide-derived thresholds. The ELP calculated values for NYS not only identify whether the particular community meets an ELP NYS threshold, but further, upon exceedance, the indicator value is ranked to provide a measure of magnitude.

Analyzing the ELP for the LHB project area within the City of Syracuse indicates that the Facility Density Indicator is elevated, exceeding the respective NYS threshold as shown in Table 4. The ranking of that exceedance is an 8, indicating moderate to high potential risk.

<b>TABLE 4 – ENVIRONMENTAL LOAD ANALYSIS</b>			
<b>Indicators</b>	<b>NYS Threshold</b>	<b>COC Indicator</b>	<b>Ranking</b>
TRI Indicator	5.269	2.96	0
Facility Density Indicator	56	389.65	8
Air Toxics Cancer Indicator	70.95	55.46	0
Air Toxics Non-cancer Indicator	3.42	1.89	0

Further, analysis of the project area indicates that minorities are 32.21 percent of the population (compared to 51.51 percent, the NYS percentage for determining minorities in urban areas), and that 27.37 percent of residents have income below the poverty level (compared to 23.59 percent, which is the NYS percentage to identify low income urban areas). Due to the slightly higher percentage of residents living below poverty, the LHB area of the City of Syracuse is considered an EJ community.

The operation of the CSO Storage Facility is not anticipated to have any significant long-term adverse impacts on the residents living in the EJ community within the LHB. However, the

construction of the proposed project will have a short term adverse impact on residences within the EJ community around Genesee Blvd from noise, dust, and traffic. These short-term impacts will be minor compared to the expected improvements. Mitigation measures outlined throughout this environmental assessment will be used to attenuate potential adverse impacts.

The EJ community will directly benefit from proposed improvements to local sewer lines and CSOs by significantly reducing odors in LHB and improving the water quality conditions of the Brook and Onondaga Lake. This will result in a better quality of life for area residents, businesses and institutions.

## **VIII. Coordination of Environmental Review**

Public hearing/meeting dates: December 6, 2005; September 14-15, 2005; and July 13, 2011.

### **A) Public Participation**

City of Syracuse  
 Tomorrow's Neighborhoods Today (TNT) - Sector 2 - Westside  
 Partnership for Onondaga Creek (POC)  
 The Atlantic States Legal Foundation, Inc.  
 Onondaga Environmental Institute (OEI)  
 Westside CSO Advisory Committee  
 N.Y.S. Department of Environmental Conservation  
 N.Y.S. Environmental Facilities Corporation  
 Neighborhood Associations (Syracuse United Neighbors)  
 Onondaga Nation of Indians  
 Neighborhood Watch Groups  
 Principals and Staff from Area Schools  
 Parent and Teacher Organizations  
 Knights of Columbus  
 Director and Staff Rosamond Gifford Zoo  
 Churches and Catholic Charities  
 Community Centers and Organizations  
 Residents of Senior Living Apartments  
 Organizations/Businesses in Syracuse Developmental Center Facilities  
 Business Owners (Pensabene's Casa Grande) and Private Property Owners

In addition to public meetings, staff released a series of publications, newsletters, and advertisements with the intent to disseminate information and solicit public feedback.

### **B) Federal, State, and Local Agencies and Tribal Nations Notified/Consulted**

N.Y.S. Department of Environmental Conservation  
 N.Y.S. Environmental Facilities Corporation  
 N.Y.S. Office of Parks, Recreation and Historic Preservation  
 Onondaga County Health Department  
 Onondaga Nation of Indians  
 U.S. Fish and Wildlife Service

**C) Significant Correspondence**

- 1) Onondaga County Department of Water Environment Protection, Addendum to Contract Documents, September 20, 2011.
- 2) U.S. Army Corps of the Engineers - Buffalo District, Application No. 2011-00565, Nationwide Permit Nos. (3,7,12), July 20, 2011.
- 3) N.Y.S. Department of Environmental Conservation, State Environmental Review Process (SERP) Certification, CWSRF C-76320-12-01, July 6, 2011.
- 4) CDM/C&S Engineers, LHB CSO Conveyance Sewers: Basis of Design Memorandum, Revised June 10, 2011.
- 5) Environmental Engineering Associates, Harbor Brook CSO Estimated Energy Usage Comparisons, June 7, 2011.
- 6) NYSDEC, Environmental Conservation Law Permit, Modification May 5, 2011.
- 7) CDM/C&S Engineers, Cultural Resources, November 18, 2010.
- 8) Onondaga County Department of Water Environment Protection, Cultural Resources, Syracuse, New York, May 18, 2009; March 2, 2006; and January 5, 2005.
- 9) N.Y.S. Office of Parks, Recreation and Historic Preservation, December 21, 2010; June 10, 2009; April 11, 2006; and February 22, 2005.
- 10) Onondaga County Health Department, Environmental Health Division; February 24, 2004.
- 11) N.Y.S. Department of Environmental Conservation, Division of Fish, Wildlife & Marine Resources, National Heritage Program; July 29, 2003.
- 12) U.S. Department of Interior, Fish and Wildlife Service; July 31, 2003.

**D) Reference Documents**

- 1) "*Stormwater Pollution Prevention Plan*," CDM/C&S Engineers, New York, July 10, 2011.
- 2) "*Onondaga Lake Improvement Project*," Onondaga County Department of Water Environment Protection, Syracuse, New York, July 10, 2011.
- 3) "*Lower Harbor Brook CSO Storage Facility Engineering Report*," Environmental Engineering Associates, Syracuse, New York, December 2010, Revised June 30, 2011.
- 4) "*NEPA EID Summary/Update*," Onondaga County Department of Water Environment Protection, Syracuse, New York, June 2011.
- 5) "*Amendment to the Lower Harbor Brook CSO Storage Facility Engineering Report*," Environmental Engineering Associates, Syracuse, New York, May 13, 2011.
- 6) "*Floatable Control Facility Plan*," Arcadis, Onondaga County Department of Water Environment Protection, Syracuse, New York, November 16, 2010.
- 7) "*Harbor Brook CSO Abatement Facilities Plan*," Brown and Caldwell, Onondaga County Department of Water Environment Protection, Syracuse, New York, August 12, 2005.
- 8) "*Harbor Brook CSO Abatement Project – Environmental Information Document*," Onondaga County Department of Water Environment Protection, Syracuse, New York, December 28, 2004.