

# What is the purpose of this Feasibility Study & Design Project?

1

Assess the current level of community interest and public utility of a beach on Onondaga Lake, and the extent to which the public would be likely to use a beach on the lakeshore.

2

Identify the best location for a potential beach on Onondaga Lake, based on an assessment of shoreline conditions; land use constraints; transportation and access considerations; infrastructure needs; and public input regarding desired location, in-water conditions, and features.

3

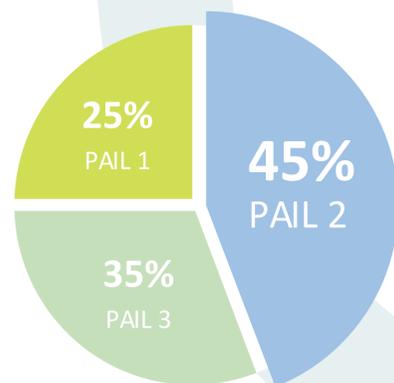
Develop a shovel-ready design for the preferred potential beach site, including amenities, that would make the beach a success for the community. Upon completion of the FS, all information collected will be provided to the public and local lawmakers to guide future decision-making on the potential for a beach on Onondaga Lake. There were no funds, local or state, allocated in association with the FS for construction.

# ONONDAGA LAKE BEACH FEASIBILITY STUDY

## Beach Site Alternatives



## What type of beach would you like to see at Onondaga Lake Park?



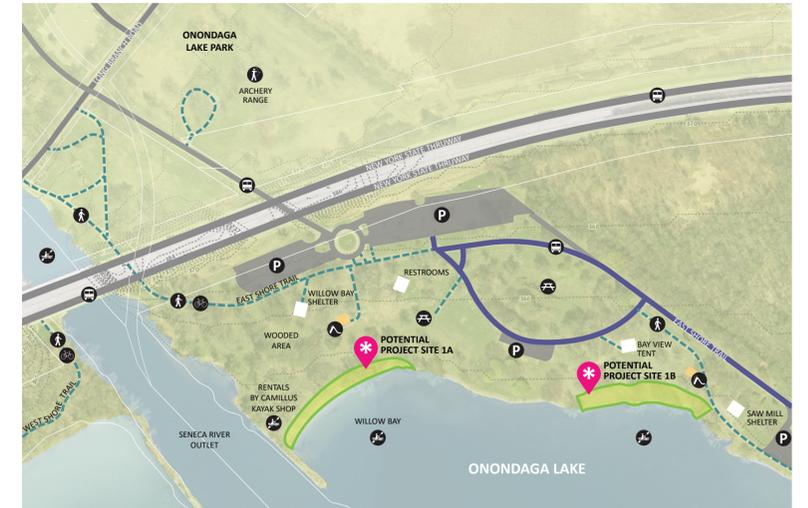
**PAIL 1** A great swimming area with deep and shallow water, areas to jump in and swim laps, easy to get in and out of the water.

**PAIL 2** A sunny open sandy beach for laying out and shallow water for wading to cool off.

**PAIL 3** A sandy beach with a mix of sun and shade, as well as plenty of space so I don't feel crowded in the water or on the sand.

\*Beach Buck Results from Project Meeting #2

## Existing Conditions at Willow Bay



The Willow Bay area is a popular picnic space for visitors to Onondaga Lake Park. Large canopy trees and several pavilions provide shaded areas and can be found along the East Shore Recreation Trail, a multi-modal path that leads visitors to this portion of the park. Willow Bay hosts events annually and offers many seasonal activities. Waterfront access, two large parking lots, existing building facilities, and spectacular views of the City make this a great location for further study.

## Existing Conditions at Bloody Brook



Bloody Brook is considered the eastern segment of Onondaga Lake Park. Filled with numerous program elements and trails, it acts as a gateway to the Onondaga Lake waterfront and to the rest of the park. This park location consists of open waterfront, vegetated riparian creekside areas, woodland areas, and recreation amenities such as ball fields, a skate park, and other active play spaces. It is also the home to Wegmans Landing, a 10 acre venue, including a large playground and spray park, the Salt Museum, and the Griffin Visitor Center, which has courts for shuffleboard, bocce, and volleyball. The park hosts large seasonal events along its waterfront and within the park that use this space. A few of these popular events include: Lakefest, Yoga in the Park, live music, the Leon Festival, and Lights on the Lake.

Above all else, the intent of this study has been to establish if there is interest by the public to have a beach on Onondaga Lake.

The draft Feasibility Study has been made public and can be found online on the Onondaga County website at <http://www.ongov.net/environment/BeachStudyDocuments.html>

As previously discussed, the Study evaluated three sites along the eastern shore of Onondaga Lake. Each site was given a numerical ranking:

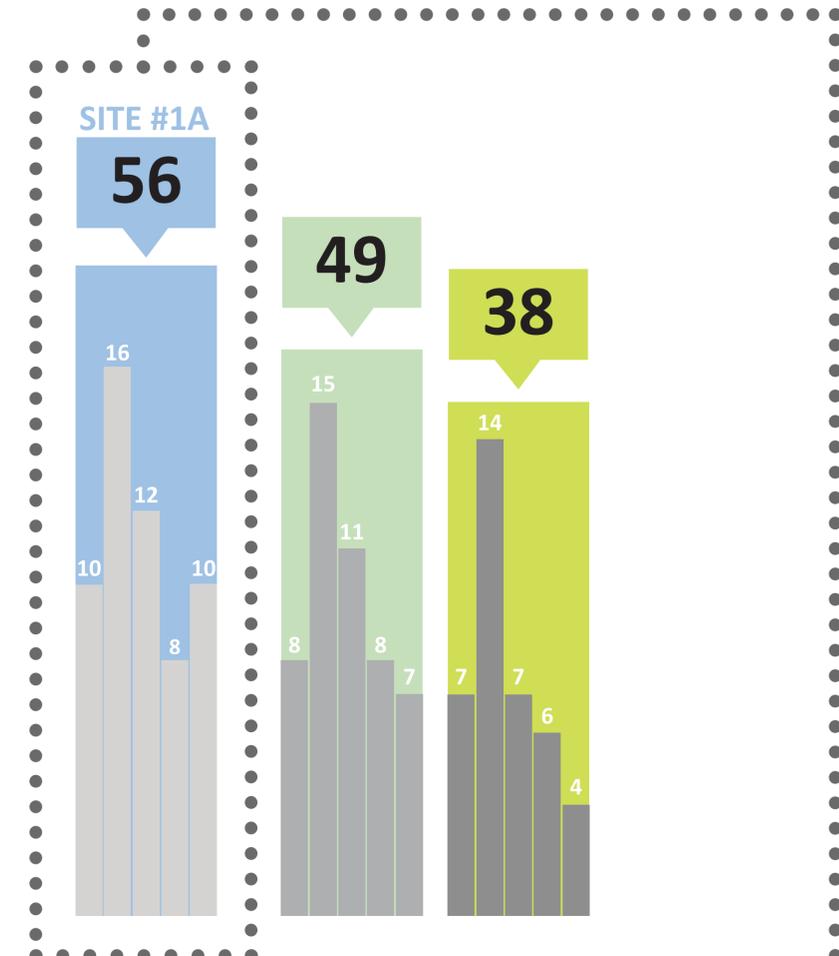
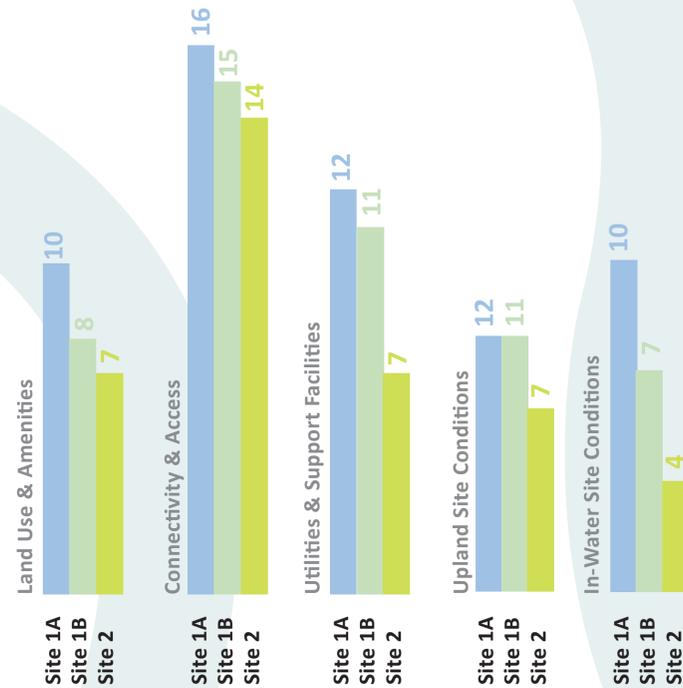
- Favorable (2 Points)
- Moderately Favorable (1 Point)
- Not Favorable (0 Points)

# ONONDAGA LAKE

## BEACH FEASIBILITY STUDY

### Matrix of Site Alternatives

Land Use & Amenities	Willow Bay Site 1A	Willow Bay Site 1B	Bloody Brook Site 2
Adequate space to build a sand beach	●	●	●
Playgrounds nearby	●	●	●
New land based recreation opportunities (spray park, concessions, volleyball court, etc.)	●	●	●
Adjacent green areas or passive recreation space	●	●	●
Water based recreation opportunities (kayak rentals, canoeing, paddle board, etc.)	●	●	●
<b>Total</b>	<b>10</b>	<b>8</b>	<b>7</b>
Connectivity & Access	Willow Bay Site 1A	Willow Bay Site 1B	Bloody Brook Site 2
Accessible to vehicles	●	●	●
Sufficient parking for potential users	●	●	●
Parking in close proximity to beach area	●	●	●
Parking area conveniently accessible from outside of park	●	●	●
Parking area conveniently accessible from a major highway	●	●	●
Transit stops nearby	●	●	●
Pedestrian & bicycle connectivity	●	●	●
Walkable to nearby destinations (food, bathrooms, etc.)	●	●	●
Connections to County's Loop the Lake Trail system	●	●	●
<b>Total</b>	<b>16</b>	<b>15</b>	<b>14</b>
Utilities & Support Facilities	Willow Bay Site 1A	Willow Bay Site 1B	Bloody Brook Site 2
Public water supply available	●	●	●
Sanitary sewer supply available	●	●	●
Solid waste disposal available	●	●	●
Proximity to existing restrooms	●	●	●
Picnic and shelter structures present	●	●	●
Proximity to existing shelters	●	●	●
Development of future infrastructure, i.e. changing rooms, etc.	●	●	●
<b>Total</b>	<b>12</b>	<b>11</b>	<b>7</b>
Upland Site Conditions	Willow Bay Site 1A	Willow Bay Site 1B	Bloody Brook Site 2
Well drained site	●	●	●
Favorable wind conditions	●	●	●
Site free of constraints by wetlands or floodplains	●	●	●
Site free of constraints by historic & cultural resources	●	●	●
Site free of constraints by endangered species & habitats	●	●	●
<b>Total</b>	<b>8</b>	<b>8</b>	<b>6</b>
In-Water Site Conditions	Willow Bay Site 1A	Willow Bay Site 1B	Bloody Brook Site 2
Water quality	●	●	●
Bathymetry and water depth	●	●	●
Wave energy	●	●	●
Shoreline transition	●	●	●
Boat accessibility	●	●	●
Submerged plants / macrophytes	●	●	●
<b>Total</b>	<b>10</b>	<b>7</b>	<b>4</b>
<b>Total</b>	<b>56</b>	<b>49</b>	<b>38</b>



### What were the results?

An optimal beach site could be envisioned as generally level with some topographic interest nearest the water's edge, having complete utilities, stable, well drained soils, high quality road and pedestrian access, protection from excessive weather patterns, with ample space for passive recreational amenities and playgrounds.

The siting of a public beach is also a key public policy decision. In the County's case, land availability, land use, public sentiment and other community issues and programs can have dramatic influence on site selection. In any site selection process, local involvement and judgments regarding the relative significance of selection criteria are important.

To that end, it was determined that the most critical criteria during the feasibility phase was to focus on site conditions that provided the optimum location to build a public beach on County-owned land within Onondaga Lake Park.

Based upon this analysis should a beach be built, it was determined that the **Willow Bay - Site 1A** location *was most suitable* to support the project.

# Final Concept Plan

The beach design for Willow Bay aims to reconnect the lake with its surrounding community, to provide a new, exciting program feature in Onondaga Lake Park, and to educate the public about the revitalization of the lake as a vital natural resource. The design draws upon input from the public and surrounding physical characteristics of the Willow Bay area, including land use and amenities, connectivity and access, utilities and support facilities, upland site conditions and in-water site conditions.

## Legend

- 1 Proposed Beach
- 2 10' Asphalt Maintenance Access & Shared Path
- 3 5' Asphalt Path Connection
- 4 Proposed Beach & Parks Facility
- 5 Maintenance Storage
- 6 85' Ramp



NORTH



# Final Concept Renderings



## How will the beach be maintained?

### Annually

The beach will be inspected to determine if the beach sand had been lost due to waves and ice over the winter.

Additional sand brought in and added to beach if required.

The loss and nourishment cycles are common at other County beach sites such as Oneida Shores. The same sand type used for the beach construction will be used for the beach nourishment.

### Seasonally

The beach will be monitored to determine if submerged aquatic vegetation (SAV) is growing in the swimming area.

The placement of sand at the beginning of the swimming season will help control the growth and establishment of SAV in the beach location.

In the event that SAV does grow back during the swimming season over the summer, the SAV may be removed if necessary, from the designated swimming/wading area only.

SAV removal will be performed in a similar manner to current Onondaga Lake maintenance where mechanical removal including hand removal is used.

### Daily

On daily basis, the beach will be inspected by Onondaga County staff to dispose of any debris that has accumulated overnight and raked to provide a clean and enjoyable beach. These responsibilities will be covered by current titles within Parks operations which exist at Onondaga Lake Park.

Onondaga County Parks will provide lifeguards for swimming safety and will adhere to protocols current used at other Onondaga County Parks beach sites.



It is anticipated that five (5) lifeguards will be on duty at all times during swimming hours. In addition, the beach will be patrolled by an Onondaga County Park Ranger for public safety.



# ONONDAGA LAKE

## BEACH FEASIBILITY STUDY

## How much would it cost to build a beach?

Preliminary Probable Magnitude of Construction Costs				
Description	Units	Estimated Quantity	Unit Cost	Total Cost
Demolition / Site Preparation				\$130,250.00
Site Construction				\$445,875.00
Architectural				\$1,159,340.00
Overflow Parking & Connections				\$206,000.00
Utilities				\$50,000.00
<b>Subtotal (Construction)</b>				<b>\$1,991,465.00</b>
Misc.				
Mobilization (4%)	LS	1	\$79,658.60	\$79,658.60
Permitting (5%)	LS	1	\$99,573.25	\$99,573.25
Survey Operations (2%)	LS	1	\$39,829.30	\$39,829.30
Field Change Payment (5%)	LS	1	\$99,573.25	\$99,573.25
			Subtotal	\$2,310,099.40
			10% Contingency	\$231,009.94
<b>Probable Construction Cost</b>				<b>\$2,541,109.34</b>
<b>Construction Management, Administration, &amp; Oversight (12%)</b>				<b>\$304,933.12</b>
<b>Overall Project Costs</b>				<b>\$2,846,042.46</b>

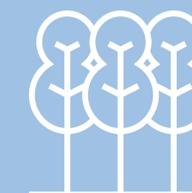


### What are some key elements of the beach design?



Create a variety of experiences by those using the space

Maximize the beach area along the shoreline and integrate other amenities



Connect old and new elements with the new path and promenade