



Date: 08 February 2002
Division: Great Lakes and Ohio River
District: Buffalo

CONTINUING AUTHORITIES PROJECT FACT SHEET

1. **PROJECT:** South Park Lake Aquatic and Wetland Restoration Project, City of Buffalo, Erie County, New York.

Congressional District: New York – 30th Congressional District

2. **AUTHORITY:** Section 206, Water Resources Development Act 1996, as amended.
3. **LOCATION:** The proposed South Park Lake Aquatic and Wetland Restoration Project lies within 155-acre South Park, a City of Buffalo multi-use public park, located within the Cazenovia Creek/Buffalo Creek watershed and the southernmost sector of the City of Buffalo, Erie County, New York. South Park is part of the City of Buffalo Olmstead Parks system and a local, regional, and nationally recognized significant urban cultural and natural resource.
4. **PROBLEM:** The ecology of South Park Lake exists in a low functioning state that is a fraction of its potential value to fish, wildlife, and residents of the area. The following identified problems and needs would be addressed by the proposed project.
 - a) **Eutrophication of South Park Lake:** The inflow of nutrients from adjacent areas and almost a century of organic detritus and accumulation enhanced by an infestation of dense aquatic macrophyte growth has facilitated the natural and cultural eutrophication of South Park Lake. The lake presently supports relatively shallow water, elevated seasonal water temperatures, a high BOD, low dissolved oxygen and overall poor fisheries and aquatic conditions.
 - b) **Dense Aquatic Vegetation Growth:** South Park Lake supports a dense growth of submergent and floating-leaved aquatic vegetation including exotic and invasive plant species. The shallow water conditions are ideal for the proliferation of rooted aquatic macrophytes. Summer aquatic vegetation extends across almost the entire lake forming dense communities that occupy the entire water column.
 - c) **Shoreline Erosion and Degradation:** Concrete and other debris lines segments of the South Park Lake shoreline for stability and to protect against erosion. Consequently, there has been significant loss and degradation of littoral and near-shore vegetated shallow habitats and the aesthetic characteristics of the lake.

- d) Wetland Degradation: The inlet wetland drainage swale at the east end of the lake once supported functional shrub/scrub, emergent, and wet meadow wetlands. The affects of time and adjacent land uses have degraded these resources as well as shoreline vegetated shallows and littoral wetlands around the perimeter of the lake.
- e) Nuisance Waterfowl: The prevalence of seasonally large flocks of transient and resident Canada geese (*Branta canadensis*) along the South Park Lake shoreline degrades water quality (i.e., bacteria and nutrient loading), destroys shoreline vegetated areas and generally interferes with other park uses.
5. ALTERNATIVE PLANS CONSIDERED: The geographic scope of the proposed South Park Lake project encompasses 24± acre South Park Lake and shoreline, the inlet drainage swale and depressional wetlands, and immediate near-shore areas. The project would restore ten identified functions and benefits associated with lacustrine and palustrine habitat, facilitate recovery of flora and faunal diversity, promote food chain redevelopment, and restore the structural and functional integrity of aquatic and wetland resources. The project objectives and components were developed cooperatively by the, Buffalo District, the Buffalo Olmstead Parks Conservancy, Erie County Department of Environment and Planning, communities of south Buffalo, and other involved agencies and organizations.
6. DESCRIPTION OF RECOMMENDED PLAN:

Project Objectives:

- 1) Restore South Park Lake to a self-regulating ecological system.
- 2) Restore and enhance the water quality and structural and functional integrity of South Park Lake aquatic and wetland habitats and fisheries resources.
- 3) Reduce the density and spatial extent of aquatic macrophyte community.
- 4) Restore the physical and biological characteristics of the lake shoreline including vegetation rehabilitation, the creation and restoration of shallow emergent littoral wetlands and near-shore island habitats.
- 5) Restore South Park Lake for waterfowl and shorebird habitat uses that will facilitate the harmonious co-existence of wildlife and humans in a multiple use park.

Major Project Components:

Mobilization and Site Preparation:

- development of equipment staging and dredged material dewatering areas;
- select clearing and grubbing around lake and on select island areas; and
- Fish seining and lake dewatering.

Dredging & Disposal

- removal of debris from shoreline and lake areas and disposal off-site;
- dredging of an estimated 100,000 cubic yards of accumulated organic matter, mineral based sediment, and aquatic vegetation;
- Transport of dredged material to suitable upland disposal site for re-use or to an approved confined disposal facility (i.e., CDF #4).

Restorative Features and Grading:

- removal and replacement of existing lake outlet structure(s);
- establishment of target shoreline and littoral zone slopes and grades;
- grading of wetland and riparian buffer areas;
- installation of bioengineering measures along shoreline; and
- Creation of shallow gradient points of public access to the lake.

Habitat Restoration:

- application of native topsoil to wetland and riparian areas;
- planting, seeding, and mulching of shoreline littoral wetland and riparian areas;
- installation of waterfowl nesting boxes, snags for fish habitat, and other appropriate habitat enhancement features;
- fish stocking;
- introduction of aquatic plant management measures; and
- establishment of nuisance wildlife deterrent measures.

Demobilization:

- removal of equipment off-site;
- breakdown of staging and dewatering areas; and
- Restoration and seeding of all disturbed soil areas to pre-existing conditions.

Monitoring and Adaptive Management:

- Annual collection of limnological and biological data and observations for specific parameters throughout South Park Lake and adjacent habitats;
- comparative analysis of data and observations against target project goals and objectives;
- preparation of annual summary report; and
- Implementation of adaptive management measures, if necessary, based on results of monitoring and attainment of goals and objectives.

7. VIEWS OF SPONSOR: The Buffalo Olmstead Parks Conservancy actively sought project partnership opportunities to restore South Park Lake and associated wetlands habitats. It was during this time that the Region 5, NYSDOT expressed interest in sponsoring the restoration of

South Park Lake through their “Environmental Initiative Program”. Subsequently, the Region 5, NYSDOT, in cooperation with the USACE under the Section 206 authority agreed to serve as the non-Federal sponsor for the South Park Lake Aquatic and Wetlands Restoration Project. The proposed project would support the purpose and goals of the NYSDOT’s Environmental Initiative Program as well as the goals and objectives of the Buffalo Olmstead Parks Conservancy, the City of Buffalo, Erie County Department of Environment and Planning, NYSDEC, and the Erie County Fisheries Advisory Board.

8. VIEWS of FEDERAL, STATE, REGIONAL AND LOCAL AGENCIES: The proposed project will be formally coordinated with appropriate agencies during all future phases of the project and specifically during the Feasibility Study phase and preparation of the NEPA documentation. Most Federal, state, regional, and local agencies, governments and organizations are aware of the Buffalo Olmstead Parks’ and Erie County’s efforts to preservation and restore South Park Lake and its natural resources. Accordingly, full agency cooperation and support is expected.

Many agencies and organizations recognize the local and regional significance of South Park and the need to restore South Park Lake. This need was initially identified by the Erie County Fisheries Advisory Board early in 2000 as part of their ‘Future Activities’ map under a title of ‘South Park Lake-Dredging & Habitat Restoration for Shore Fishing’. This 12 member Board, with most appointees from the County Executive, is very supportive of this project. Since the initiation of USACE involvement the Erie County Fisheries Advisory Board has conducted additional visits to the proposed project site and developed a renewed interest in providing outreach to the community and expertise and support for restoration efforts.

The Buffalo Olmstead Parks Conservancy likewise is dedicated to restoring South Park Lake and has been instrumental in gaining the involvement of other agencies and organizations including the Region 5, NYSDOT, NYSDEC, the City of Buffalo, and the Erie County Department of Environment and Planning who support this important project.

This project would further local and regional goals and give rise to a partnership of agencies and organizations focused on the restoration of the South Park Lake resources.

9. STATUS OF ENVIRONMENTAL COMPLIANCE: This document incorporates a Preliminary Assessment of environmental conditions, impacts and compliance. Table 8 provides a brief summary of anticipated project related impacts per standard assessment and evaluation parameters for this phase of study. Table 9 provides a brief summary of compliance with listed Federal Statutes, Executive Orders, Memorandums, etc. for this phase of study. All required NEPA documentation including an Environmental Impact Statement (EIS), Record of Decision (ROD), including a Section 404 (b) (1) evaluation (Clean Water Act), will be prepared concurrent with the Feasibility Study.
10. SIGNIFICANT AFFECTS: Based on the Preliminary Environmental Assessment (see Table 8 in the PRP), the project would have both significant and minor short-term negative affects on the physical and natural environments and temporary disruption of park use and aesthetics around the lake during construction. Conversely, the project would have a wide range of minor and

significant positive short-term effects, and significant positive short and long-term effects on the physical, natural, and human environments.

11. IMPLEMENTATION SCHEDULE: Completion of the Feasibility phase and preparation of plans and specifications is expected to take 45 months. Contracting and construction is expected to take 18 months. Post construction monitoring will take place over a three-year period after construction. The schedule includes a 25 percent time contingency.

<u>Activity</u>	<u>Scheduled Duration</u>
Preliminary Restoration Plan	Complete
Feasibility	30 mo.
Pre-construction Engineering & Design	15 mo.
Contracting and Construction	18 mo.
Monitoring	36 mo.

12. SUPPLEMENTAL INFORMATION: The South Park Lake Project includes a three-year monitoring period after project construction. A monitoring and adaptive management plan will be developed for the project during the Feasibility phase and will include (among other information), monitoring requirements and objectives, measurement endpoints, indicators of success, and qualitative and quantitative monitoring procedures. Monitoring will evaluate the progress of fisheries development; water quality improvements (i.e., temperature and dissolved oxygen); characteristics of vegetation establishment; as-built hydrologic conditions; and wildlife occurrence. Based upon the results of monitoring, necessary adjustments will be made to meet project goals and objectives. The Erie County Fisheries Advisory Board has agreed to complete post-project monitoring.

13. FINANCIAL DATA:

a) Project Financial Needs

Federal Funding Needs by Year

Funding Needs	Feasibility Phase	PED	Construction	Monitoring	Estimated Real Estate Value	Total Cost Share	2003	2004	2005	2006	2007	2008	2009	2010	2011
							FY	FY+1	FY+2	FY+3	FY+4	FY+5	FY+6	FY+7	FY+8
Totals	290,000	105,000	3,195,000	25,000	905,000	4,520,000	120,000	120,000	80,000	75,000	1,000,000	2,195,000	8,333	8,333	8,334
Federal (65%)	188,500	68,250	2,093,000	16,250	0	2,349,750	120,000	120,000	80,000	75,000	500,000	1,438,500	5,417	5,417	5,417
Non-Federal (35%)	101,500	36,750	1,127,000	8,750	905,000	2,170,250									

*: Includes 25% contingency.

The Feasibility phase and preparation of plans and specifications is initially 100% Federally funded. 35% non-Federal cost share required prior to the initiation of construction and includes all Feasibility, Pre-construction Engineering & Design (PED), Construction and Monitoring costs.

b) Table 11: Non-Federal Requirements:

Category	Total
LERRD	\$905,000
Cash	\$1,265,250
Work-In-Kind	\$0
Annual OMRR&R	\$7,840

14. FEDERAL ALLOCATIONS TO DATE:

a) Table 12: Total Federal Allocations to Date.

Project Phase	Total Allocations
Preliminary Restoration Plan	\$10,000
Feasibility Study	\$0
Preconstruction Engineering & Design	\$0
Construction & Monitoring	\$0
TOTAL	\$10,000