Onondaga Lake Natural Resource Damage Assessment and Restoration

Draft Restoration Plan

May 2017

NRDAR: What is it?

- A process to determine
  - Injuries and service losses
  - Appropriate amount & type of restoration needed
- Goal is to "make public whole" following release of hazardous substances & oil
- "Trustees" act on behalf of public
- NRDAR success:
  - Measured by amount of appropriate restoration achieved

Must be a connection to natural resources and injury must be from hazardous substances

What is an injury?

Measurable adverse change…

- May be impacts to fish, wildlife and other natural resources (e.g., mortality, reduced reproduction)

- May be a lost human use – like a closure of an area or fishing advisory

Role of Trustee

- Coordinate w/response agencies (e.g., EPA, NYSDEC) by integrating trustee concerns and science into the cleanup process

Role of Trustee

- Assess injuries

Onondaga Lake

Trustees determined that injuries occurred or likely occurred to fish, birds, bats, amphibians, reptiles, and sediment organisms as a result of mercury and other hazardous substances.

Recreational fishing was also impacted as a result of fishing bans and the issuance of fish consumption advisories.

Role of Trustee

Evaluate and scale restoration alternatives

- Return resources to baseline
- Compensate for interim lost resources or services

Grassland restoration

Land acquisition

Fishing access

Public boardwalk

Bog turtle habitat restoration

Common tern restoration

Role of Trustee

- Oversee and/or implement restoration plan

Onondaga Lake Natural Resource Damage Assessment Restoration Plan and Environmental Assessment

Draft Report | April 2017

prepared for:

United States Fish and Wildlife Service

State of New York Department of Environmental Conservation

prepared by:

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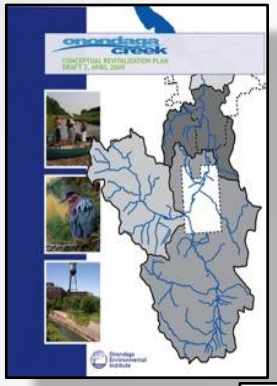
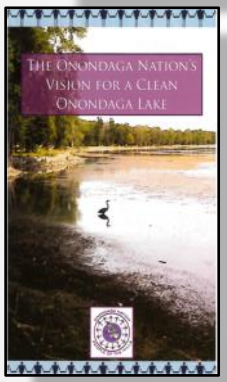
IEc

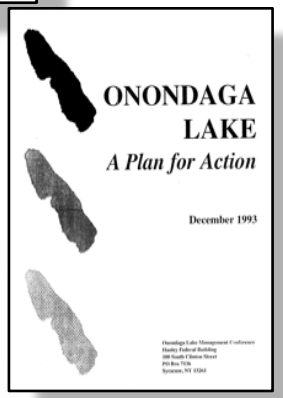
INDUSTRIAL ECONOMICS, INCORPORATED

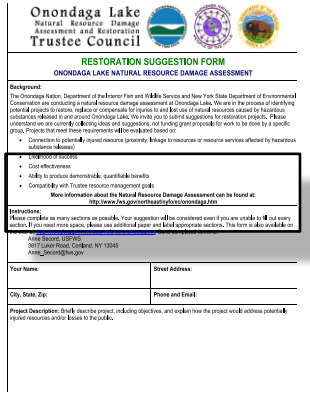
Public Input into Restoration Plan

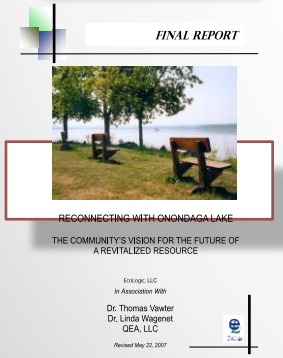
Public Meetings, Suggestion Form, and Reports

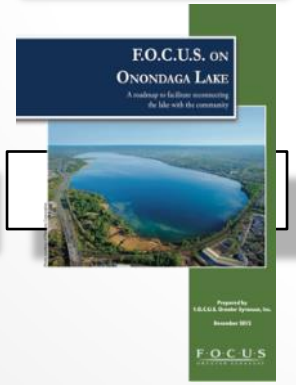


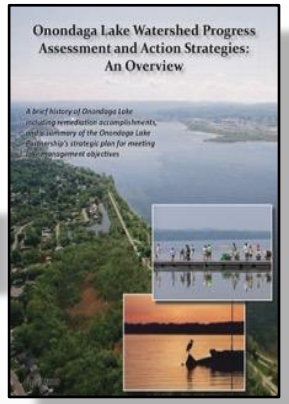








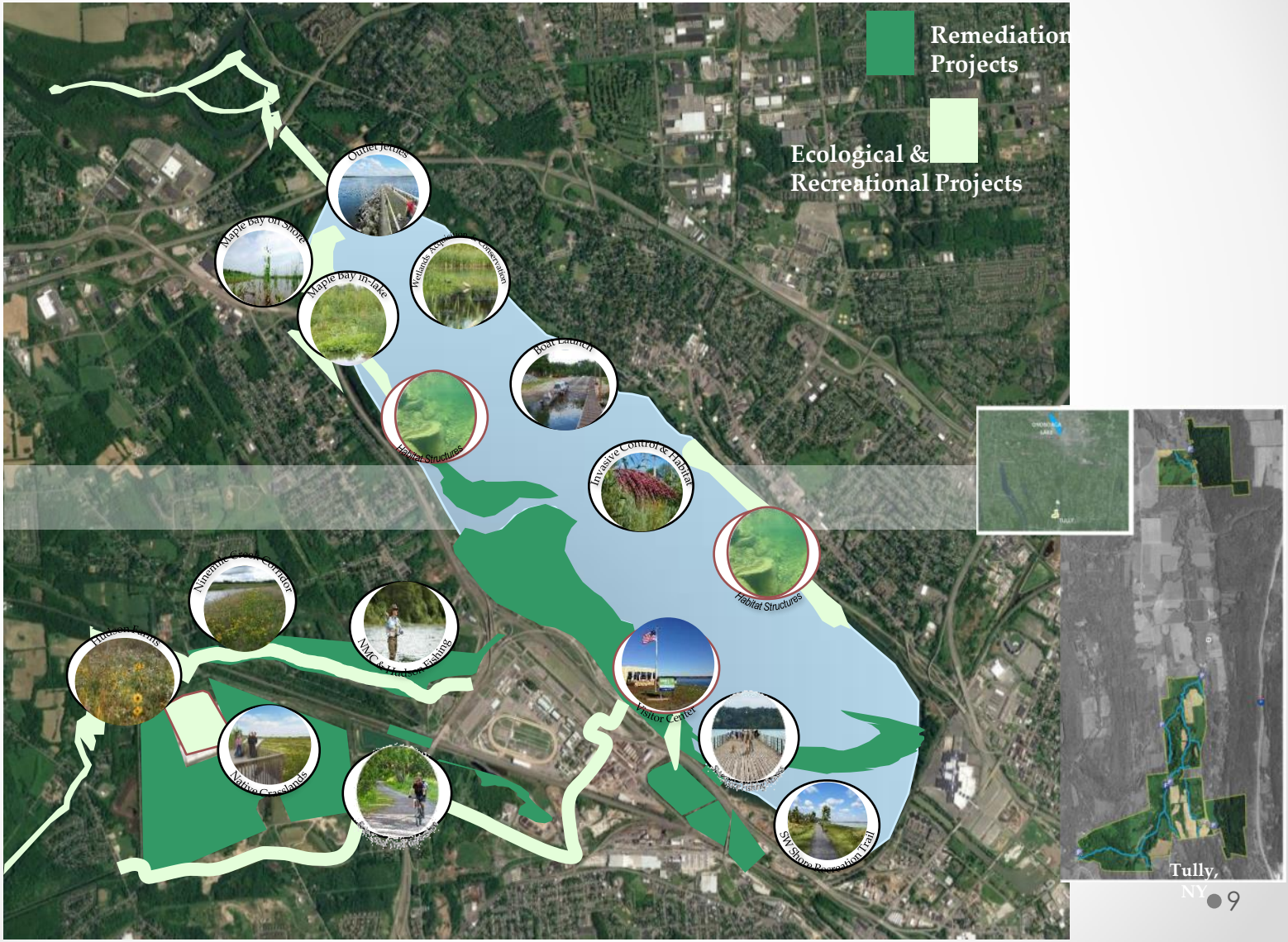




Community Ideas

- Fish habitat
- Nearshore deep water fishing
- Fishing piers
- Invasive species control
- Fishing access
- West shore habitat
- Biopreserve
- Aquatic native vegetation
- Gere Lock
- Wetland restoration
- Boat launches
- Shoreline restoration
- Shoreline parking
- Nine Mile Creek public access
- Public access
- Educational facilities
- Loop the Lake Trail
- Native plant restoration
- Connect bikeways
- Public access to Honeywell property
- Tully Valley access
- Stream restoration

Onondaga Lake Restoration: A Watershed Approach



Proposed Ecological Projects

Project	Description
Maple Bay in-lake	38 acres planting & structures
Maple Bay on-shore	Invasive species control, vernal pools
Northwest Shore	Invasive species control, vernal pools
Additional in lake structures	Fish habitat structures on lake bottom
Wetland and upland acquisition	200 acres near lake TBD
Native grassland restoration	100 acres
Ninemile Creek	100 acres acquisition & restoration
Hudson Farms	117 acres acquisition & restoration
Invasive species control	15 years of invasive species control in ~ 1,700 acres of wetlands, littoral zone & riparian habitat
Tully Nature Preserve & Recreational Area	1,023 acres acquisition and stream restoration

Proposed Recreational Projects

Project	Description
Tully Nature Preserve and Recreational Area (same as project on eco list)	11 miles public fishing rights, recreational access
Erie Canal Project	3.2 miles of trail & parking
SW Shore recreational trail	Trail & recreational amenities
Deepwater fishing pier	West side of lake
SW shore angler access	Public fishing access & parking
Jetty improvements	Improve access, ADA compliant
Visitor Center	Public transfer and improvements
Ninemile & Hudson Farms fishing access	3.3 miles public fishing rights, parking, canoe launch
New boat launch	Launch & parking
New fishing access	Access & parking

Maple Bay In-Lake Habitat Restoration

- ~ 38 acres
- Habitat structures
- Wild rice seeding; emergent and floating aquatic planting

Maple Bay Onshore Habitat

Protection and Restoration

- Phragmites control and planting of emergent marsh
- Vernal pool creation

Northwest Shore on-shore Habitat Protection and Restoration

- Wetland enhancement – Phragmites control and planting of emergent marsh
- Vernal pool creation

Onondaga Lake Outlet Jetty Enhancements

- Improve access and safety for anglers and others
- New surface

Maple Bay, On Shore and Outlet Jetty Enhancements

On Shore Habitat Enhancement

- More than 30 acres of wetlands enhanced through control of invasive species and establishment of native plants
- Hundreds of acres of habitat conservation
- Establishment of four vernal pools

Outlet Jetty Enhancements

- Improvement to existing Onondaga Lake outlet jetties to enhance recreational opportunities for anglers and pedestrians
- Gaps in west and east jetties filled with stone and gravel material
- Paved walking path provides access to west jetty from County Bike Trail
- Deck with railings constructed atop portion of east jetty that is located entirely in lake
- Ramp with railings installed to provide access from pedestrian walkway to adjacent lawn area in Onondaga Lake Park
- Walking path installed to connect east jetty to County Park parking lot

Maple Bay In-Lake Habitat Enhancement

- 38 acres of in-lake habitat enhancements, shallow water habitat and shoreline invasive species control
- Wetlands restored to allow for fish spawning
- Wild rice and floating aquatic vegetation introduced in shallow water
- Native floating aquatic species installed in calmer protected areas
- Underwater structure enhancements

Erie Canal Trail

- Construction of about 3.2 miles of Erie Canal trail from Reed Webster Park (includes historic Gere Lock)

Visitor Center Transfer and Amenities

Erie Canal and Southwest Lakeshore Trails

Southwest Shore Recreation Trail Project Highlights

- New 1.2-mile asphalt trail extension of West Shore Recreation Trail from near Onondaga Lake Visitors Center to Harbor Brook area
- Fencing installed along portions of trail that have a steep bank near water
- Bench seating installed at five locations along trail.

Erie Canal Trail Project Highlights

- Build new 3.2 mile trail connecting Old Erie Canal Trail to existing County Trail
- Preserve Gere Lock as historic site
- Develop 4,200-square-foot gravel public parking area for additional access
- Increase guarding on railing on State Fair Pedestrian bridges over I-690

ONONDAGA LAKE NATURAL RESOURCE DAMAGE ASSESSMENT RESTORATION PROJECTS

New York State Department of Environmental Conservation
United States Fish and Wildlife Service, Department of the Interior

Southwest Lakeshore Trails

Southwest Shore Angler Access Project Highlights

- Improved fishing access along 1.4 miles of shoreline between Onondaga Lake Visitors Center and Harbor Brook, directly accessible from Southwest Shore Recreation Trail
- Access gives anglers exposure to deep, moderate and shallow water depths
- New 10,000-square-foot gravel parking area to be created

Deep Water Fishing Pier Project Highlights

- Floating fishing pier installed to give anglers deep water access along southwestern shore
- Connection from fishing pier to Southwest Shoreline Recreation Trail
- Annual installation of pier in early spring and removal late fall

Visitors Center Transfer Project Highlights

- Maintenance of Onondaga Lake Visitors Center for five years
- Picnic area added to lawn area north and east of Visitors Center
- Potable water connection installed from County's West Side Pump Station to Visitor's Center
- Cold water rinse station to assist in invasive species control efforts

Conceptual

Hudson Farms Habitat Protection, Enhancement and Public Use

- 117 acres – Honeywell owned
- Wetland restoration
- Vernal pool creation
- Forest enhancement
- Public fishing rights
- Angler parking
- Canoe launch

Ninemile Creek Corridor Habitat Protection, Enhancement and Public Use

- ~ 100 acres; Honeywell owned
- Wetland enhancement
- Floodplain forest enhancement – 24 acres
- Public fishing rights
- Stream restoration

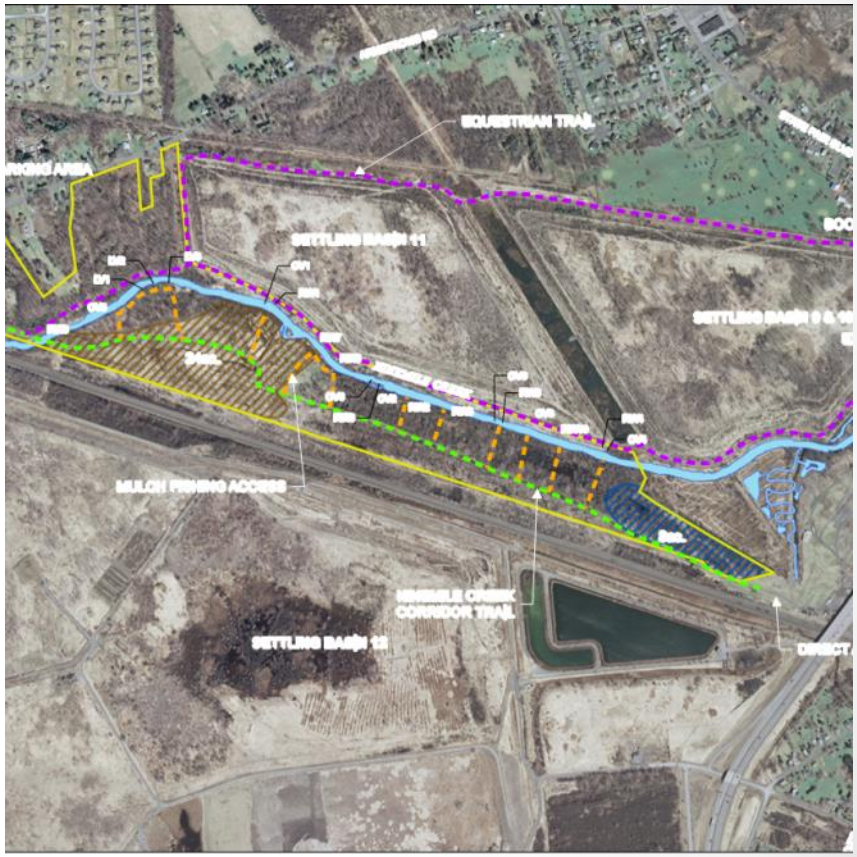


Figure is approximate

Settling Basin Inland Salt Marsh and Grassland Bird Habitat

- ~100 acres native grassland on settling basins
- Salt marsh species supported & potential for large contiguous native grassland restoration
- Grassland bird species such as Bobolink, Northern Harrier.

ONONDAGA LAKE NATURAL RESOURCE DAMAGE ASSESSMENT RESTORATION PROJECTS

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Hudson Farms, Ninemile Creek & Native Grassland Restoration

Ninemile Creek

Ninemile Creek – brook trout, brown trout

6.8 miles of streambank along Ninemile Creek

Hudson Farms

Wetland restoration – convert phragmites to diverse wetland

Highlights

- 217 acres of habitat protected
- 4 public parking areas
- Two canoe launches
- Additional Ninemile Creek public parking site and 3.4 miles of public fishing rights to be acquired at location to be determined

Native Grassland

100 acres native grassland restored

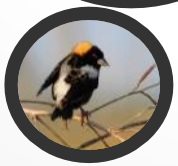

Photo credit Jeff Nadler

Public fishing

ONONDAGA LAKE NATURAL RESOURCE DAMAGE ASSESSMENT RESTORATION PROJECTS

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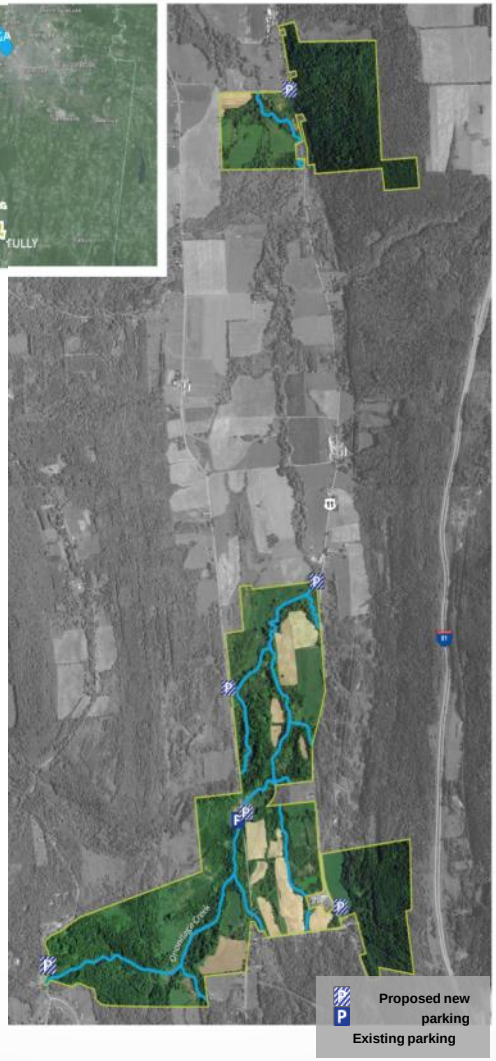
Tully Recreational Area and Nature Preserve

Diverse Wildlife Habitat

Public Access Improvements

Stream Restoration



Public Recreation

Highlights

- 1,023 acres of habitat protected
- 11 miles of streambank public access along Onondaga Creek
- 5 new gravel parking areas
- Stream habitat enhancement

Invasive Species Control

- 15 Years
- Onondaga Lake and watershed
- ~ 1700 acres
- Funds each year for invasive species evaluation and control

Additional Proposed Projects

- Wetland and upland acquisition near Lake – 200 acres TBD
- Additional public fishing rights and angler parking along Ninemile Creek (TBD)
- Additional fish habitat structures in the Lake
- Boat launch on Seneca River (TBD)
- **Future Project Fund to fund additional restoration projects (currently contains $2,297,000). Additional public input will be solicited.**

Benefits of Ecological Restoration Projects

- The restoration projects proposed thus far provide benefits to natural resources.
  - Vernal pools - amphibian breeding
  - In-lake habitat structures - fish, amphibian and invertebrate breeding & foraging
  - Invasive species control - diverse habitat for birds, fish, mammals, amphibians & reptiles
  - Protection of contiguous habitat - preserves habitat and minimizes habitat fragmentation
  - Emergent and floating wetlands in and around the lake – foraging and breeding habitat for fish, birds, mammals, amphibians, reptiles
  - Stream restoration – breeding/foraging habitat for fish, birds, mammals, & amphibians
  - Forest enhancement – breeding and foraging habitat for birds and mammals
  - Native grassland – breeding habitat for rare bird species

Ecological Restoration Project Proponents

Sources of Onondaga Lake Draft Restoration Plan Proposed Project Ideas

Onondaga Lake Proposed Project	Onondaga Nation Vision *	OLWPAAS **	OL Dev Plan	OL Env Action Plan	O Creek Revital	NYSDEC	OEI	OLP	ESF (HF Survey Team)	Ringler, Kirby, Bassmasters	CNY Land Trust	Onon County
Ninemile Creek Eco	x										x	
Wetland restoration (HF,9 Mile,Maple Bay)	x	x						x				
Hudson Farms Eco	x	x							x		x	
Native Grasslands	x											x
Maple Bay In-lake	x	x			x					x		x
Maple Bay On-shore	x		x	x								x
NW Shore On-shore	x		x	x								
In-lake habitat	x	x			x					x		x
Wetland Conservation	x		x	x								x
Invasive Species	x				x							
Tully Eco	x				x						x	
Stream Habitat work - Tully	x	x			x	x	x	x				x
Tully forested lands protection (potential mudboil mitigation)	x				x	x	x					
* Onondaga Nation Vision (2010)	Document proposes ideas such as fish habitat restoration in the lake (ledges), managing invasive species, restoring native species and wetlands, restoring bird species, managing stormwater, green infrastructure, mudboil correction and waste removal.											
** OLWPAAS	Onondaga Lake Watershed Progress Assessment and Action Strategies (2010)											

Benefits of Recreational Restoration Projects

- The restoration projects proposed thus far provide benefits to people who enjoy the natural resources of the lake and surrounding area.
  - Increased fishing access – new public fishing rights, parking areas, improved jetties, deepwater pier, Seneca River boat launch, improved habitat for fish
  - Enhanced hiking opportunities – Erie Canal extension, southwest shore trail extension, trail potential at Tully
  - Increased boating access – Seneca River boat launch, canoe launch
  - Increased opportunities for nature enjoyment – Visitor Center, Fellows Falls, Tully & Ninemile Creek habitat protected

Recreational Restoration Project Proponents

Sources of Onondaga Lake Draft Restoration Plan Proposed Project Ideas															
Onondaga Lake Proposed Project	**OLWPAAS ****	**OL Dev Plan**	**OL Env Action Plan**	**FOCUS Water**	**OL Rehab Guidance**	**O Creek Revital**	**NYSDEC**	**OEI**	**OC EMC**	**OLP**	**Syracuse Land Use/Dev**	**Bikeway System Plan O County**	**Beebe**	**Izaak Walton**	**Onon County**
Erie Canal Trail	x											x	x		
SW Shore Trail	x	x	x	x	x				x						
Deep Water Pier															x
SW Shore Angler Access		x		x	x		x								x
Visitor Center (Education)		x	x	x	x		x								x
Ninemile Creek/Hudson Farms Fishing Access							x								x
Outlet jetties							x								x
Seneca Boat Launch (Boating access)	x						x								x
Canoe launch	x						x								x
Tully Recreational Area						x					x				
Fellows Falls						x		X		x					
Public Fishing Rights	x						x							x	
** OLWPAAS	Onondaga Lake Watershed Progress Assessment and Action Strategies (2010)														

Next Steps

- Public submits comments through June 2, 2017 on the Draft Restoration Plan.
- Trustees respond to comments and finalize plan.
- Cooperative assessment process with Honeywell continues.
- Litigation or settlement results in payment of damages and/or implementation of projects.
- Any settlement would be subject to further public comment in a document called a consent decree.
- **Trustees will continue to reach out to public to get input on project design AND suggestions for additional restoration projects.**

Thank You and Questions

Send comments to:
anne_secord@fws.gov and
sharon.brooks@dec.ny.gov or
phone Anne at (607) 753-9334

For additional information, visit
https://www.fws.gov/northeast/nyfo/ec/onondaga.htm