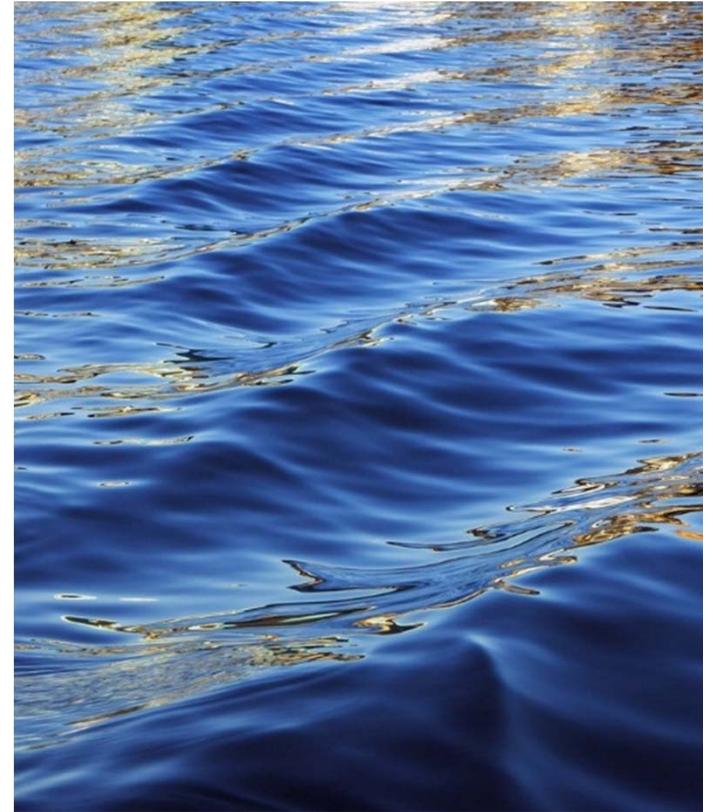




# Natural Resource Damages Settlement

For the St. Lawrence Environment



# St. Lawrence Environmental Trustee Council (SLETC)

- Saint Regis Mohawk Tribe (SRMT)
  - Natural Resource Damage Assessment Office (NRDA)
- National Oceanic and Atmospheric Administration (NOAA)
- U.S. Fish and Wildlife Service (USFWS)
  - Department of the Interior (DOI)
- New York State Department of Environmental Conservation (NYSDEC)



# Differences Between Restoration & Remediation

NRD claims compensate the public for past, present & future injuries to natural resources

Remediation is USEPA's efforts to reduce risk to human health

Remediation/Clean-Up reduces environmental risk but does not restore natural resource losses.

# Natural Resource Damage Assessments (NRDA)

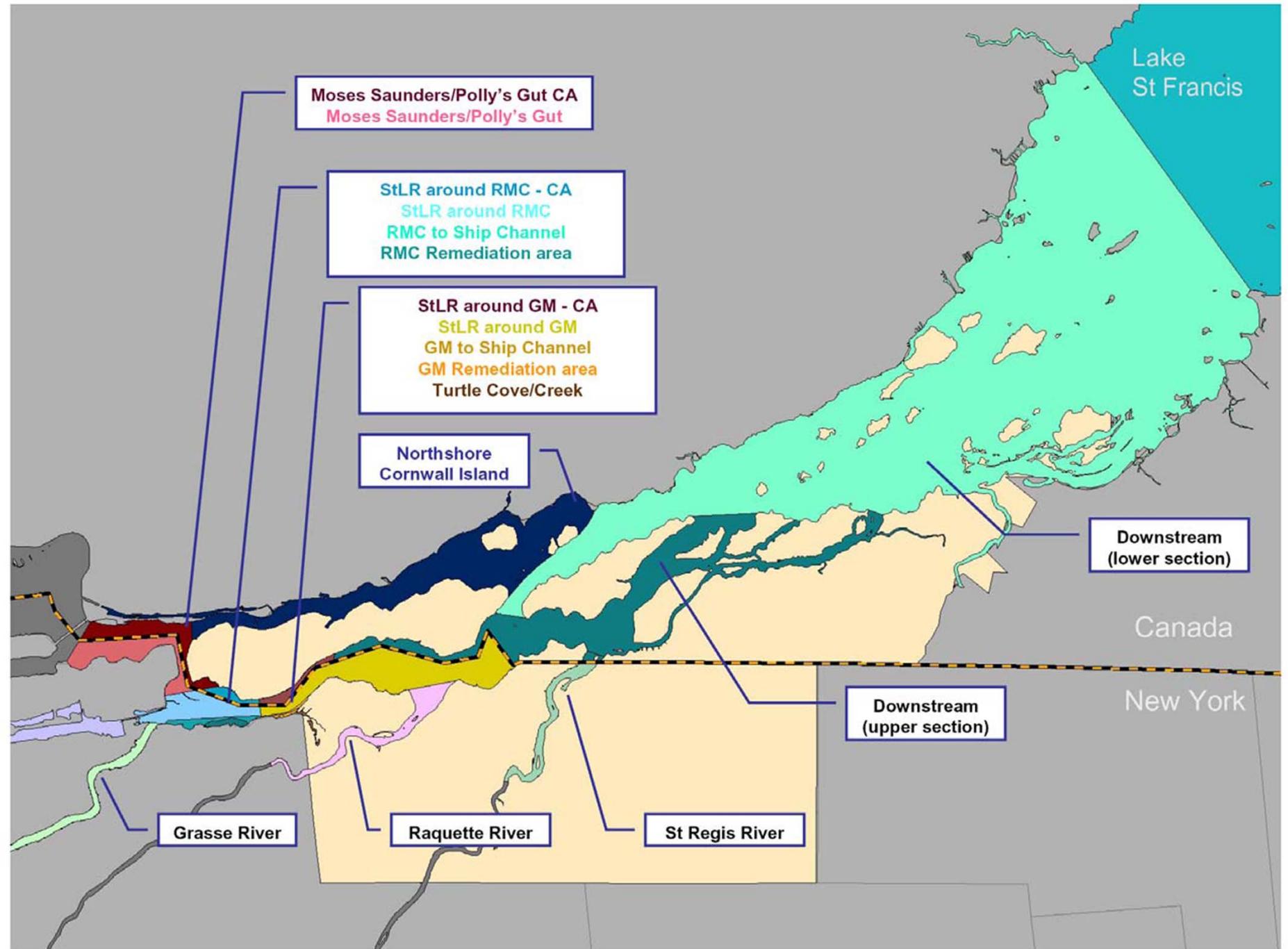
- Regulatory Authority: CERCLA
- “Natural Resources” as defined by CERCLA
- Goals:
  - “To assess the extent of injury to a natural resource and determine appropriate ways of restoring and compensating for that injury.”
  - To “make the public whole” following release of hazardous substances & oil.
- NRDA: the process of collecting, compiling, and analyzing information to make determinations on the extent of injury and appropriate ways of restoring and compensating for the injury.

# St. Lawrence Assessment Area

This area includes the St. Lawrence River from the Moses Saunders Dam, Long Sault Dam, and upstream of the Wiley-Dondero Canal downstream to Lake St. Francis, as well as a suite of tributaries, and downstream in the St. Lawrence Estuary.

Also included:

- GM Remediation Area
- RMC Remediation Area
- Grasse River
- Raquette River
- St. Regis River



# St. Lawrence NRDA Case Background

- Responsible parties or “The Facilities”:
  - Alcoa West
  - Alcoa East (formally Reynolds Metals Company)
  - General Motors Central Foundry
- Multiple Contaminants: PCBs, PAHs, cyanide, fluoride, metals
- One of first cooperative NRDAR cases
- One of first cultural assessments

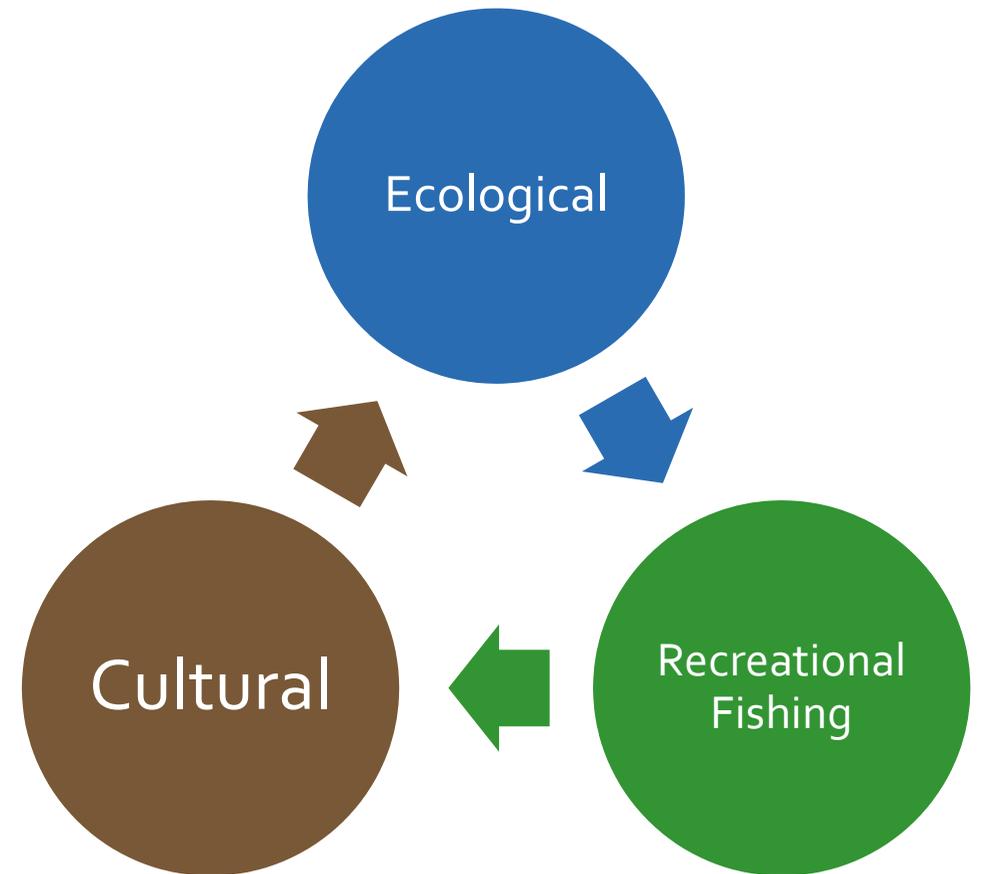
# Cooperative NRDA Process

- Companies fund Trustee injury and compensation determination
- Parallel to remedial effort
- Enhances exchange of information and expertise
- Goal is to reduce interim losses, achieve settlements and restoration sooner than through litigation
- Challenges: trust, agreement, agree to disagree



# Three Pronged Approach to Damage Assessment

- Ecological Injury/Losses
  - Injury to natural resources
- Human Use Recreational Fishing Losses
  - Lost fishing opportunities
- Cultural Injury
  - Injury to natural resources that affects significant cultural uses of those resources

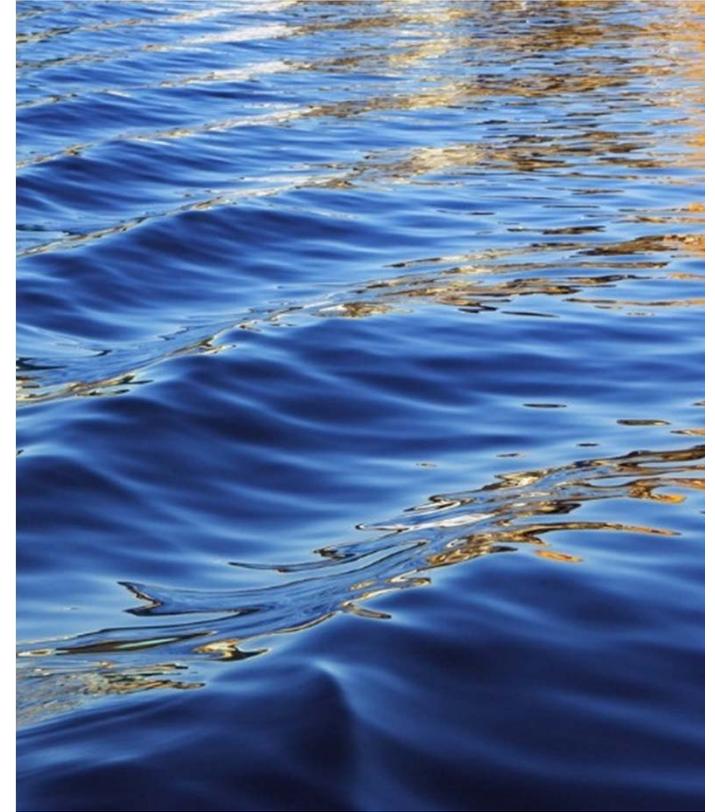


## Current Status of NRDA

- GM NRD claim – 2011 bankruptcy settlement
  - \$1.8M for restoration
  - Assessment costs
- Alcoa NRD claim – 2013 settlement
  - \$8.3 M for ecological restoration projects
  - \$1.8 M for fishing/boating access
  - \$8.4 for cultural restoration projects
  - Assessment costs
- Release of Restoration Compensation and Determination Plan (RCDP) for public comment
- Restoration Planning, Implementation and Monitoring



# Restoration Planning



# Community Outreach & Restoration Planning

- 2006: Press release and letters sent to potentially interested individuals, agencies, and organizations.
- St. Regis Mohawk Tribe: Community outreach.



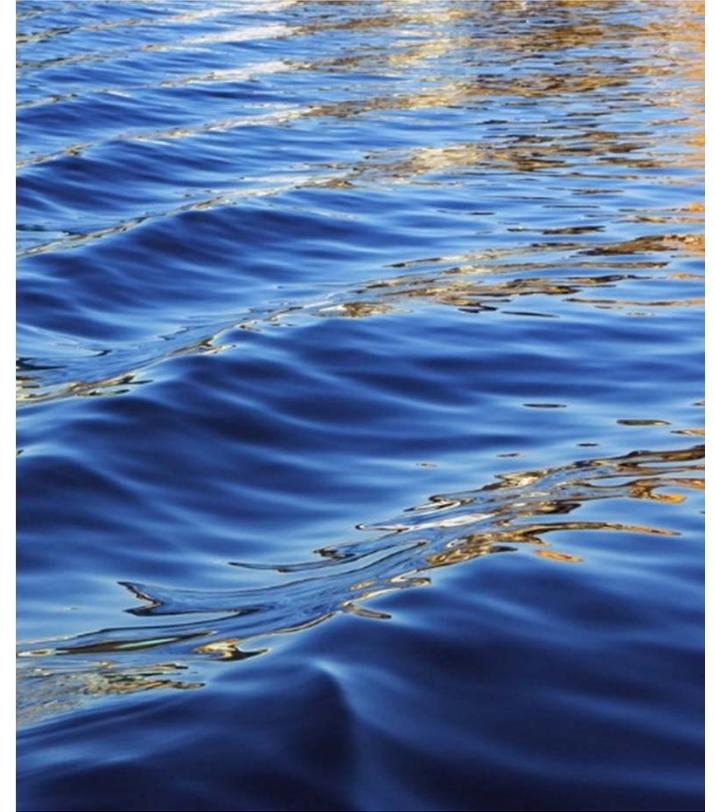
# Site-Specific Evaluation Criteria for Restoration Projects

- Location within the St. Lawrence watershed
- Linkage to injured resources or associated services
- Proximity to injured resources
- Habitat connectivity
- Proximity to lands with protected status
- Cost effectiveness
- Potential contamination or other issues that might preclude project selection
- Benefits to protected species or sensitive or unique habitats
- Public enjoyment or use of natural resources
- Likelihood of success
- Feasibility and sustainability of project
- Part of larger local or regional restoration plan or vision



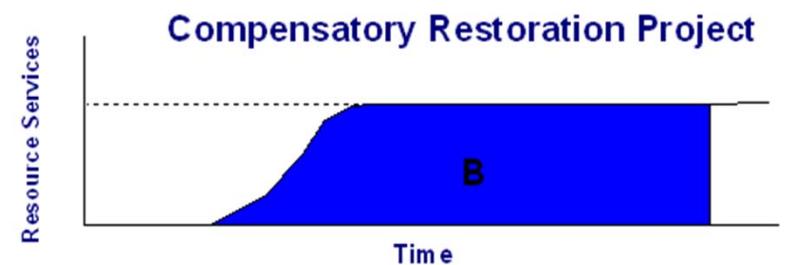
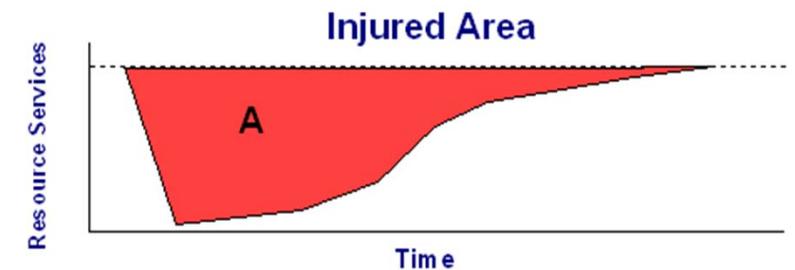
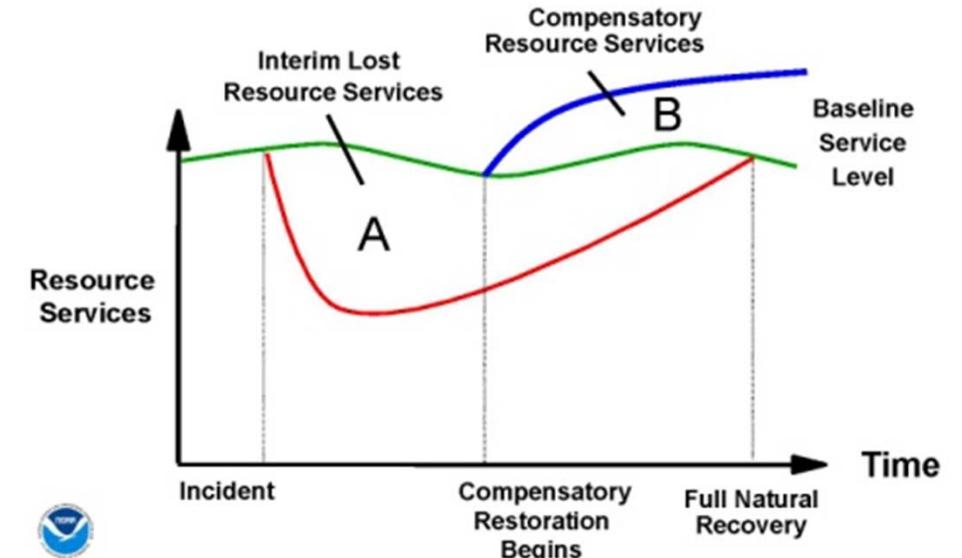
# Ecological

Assessing injury, challenges, preferred restoration



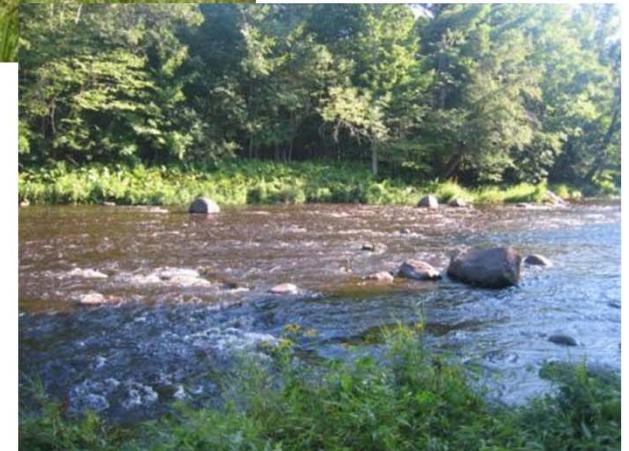
# Ecological Injury

- Quantified injury to birds, fish and benthic organisms from PCBs, benthic organisms from PAHs and fluoride, and mammals from fluoride using Habitat Equivalency Analysis (HEA)
  - additional qualitative injury associated with other contaminants
  - toxicity thresholds from the literature
- Calculated interim (past and future) injury from contaminants
- Final output for HEA is acre-years of habitat **loss**
- Restoration projects have nexus to injury
  - selected to provide similar acre-years of habitat **gain**



## Preferred Restoration Projects

- Wetland Enhancement/Restoration
- Streambank Enhancement/Restoration
- Upland Enhancement/Restoration
- Avian Enhancement/Restoration
- Fisheries Enhancement/Restoration
- Amphibian and Reptile Enhancement/Restoration
- Mammal Enhancement/Restoration
- Land Conservation



# Ecological Restoration Project Examples

- Coles Creek Blandings Turtle Habitat Acquisition and Restoration
- Dickerson Island/Murphy Islands Predator Control, Revegetation
- Fish Passage – Hogansburg & Madrid Dams
- Habitat Acquisition – Snye Marsh (RAMSAR) and Wilson Hill
- Native warm season grassland restoration
- Habitat restoration and stocking of lake sturgeon, Atlantic salmon, northern pike
- Riparian buffers



# Preferred Fisheries Projects

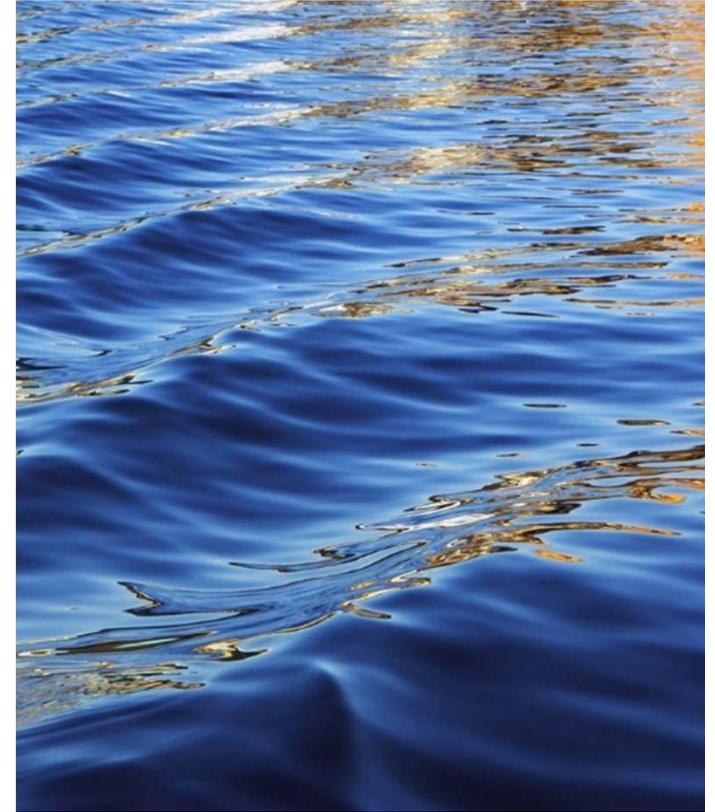
- Streambank Restoration: riparian buffer zones, fencing, revegetation
- Fish Spawning Habitat: Open access to and improve existing spawning areas
- Lake Sturgeon stocking in local rivers from existing or mobile hatcheries
- Atlantic Salmon stocking in local rivers
- Fish Passage (e.g., Dam Removal, Tributary Culverts): Provides fish and wildlife greater access to habitat and improves water quality and sediment transport.





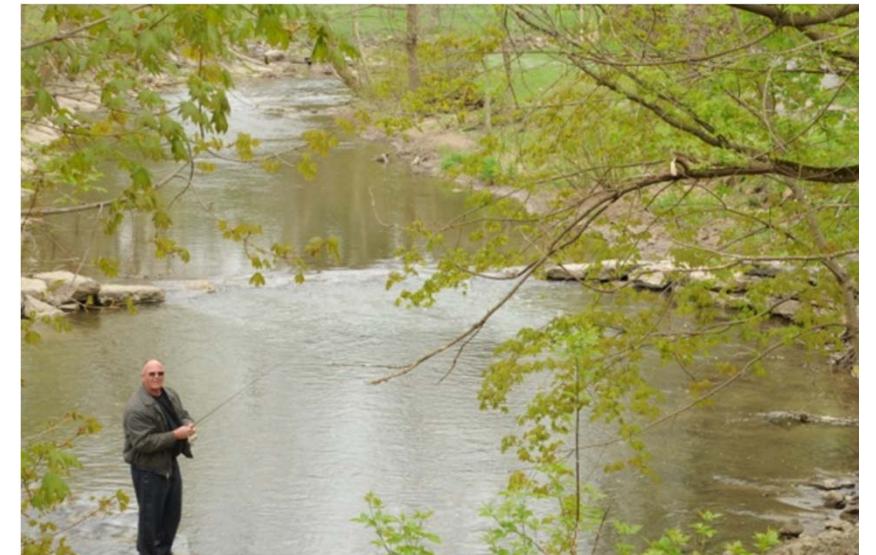
# Human Use Recreational Losses

Recreational Fishing



## Human Use Recreational Losses

- Fish consumption advisories for PCBs exist for the Grasse River and St. Lawrence River
- Used data from “RTI/TER St. Lawrence Area Outdoor Recreation Survey, 1991”
- Random Utility Model used to estimate loss to recreational fishing
  - Calculated “lost” fishing trips between 1981 and 2030
- Restoration projects sought to replace lost recreational opportunities: shoreline fishing and boat access



# Fishing/Boating Access Restoration Projects Evaluated

## Boat and Shoreline Access

- Grasse River
  - Upper Grasse River
  - Middle Grasse River- upstream of Massena
  - Lower Grasse post-remediation
- Raquette River
  - Mid – River
  - Lower River



# Fishing/Boating Access Projects Preferred

		Boat	Canoe	Shore	Parking	Upgrade	New
Mid-Raquette River Boat Launch [Springs Park]		<input checked="" type="checkbox"/>					
Lower Grasse River Boat Launch [Rt. 131 Bridge]		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Lower Raquette River Canoe Launch			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Upper Grasse River Boat Launch [Madrid]		<input checked="" type="checkbox"/>					
Middle Grasse River Boat Launch [Rt. 37 Bridge]		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

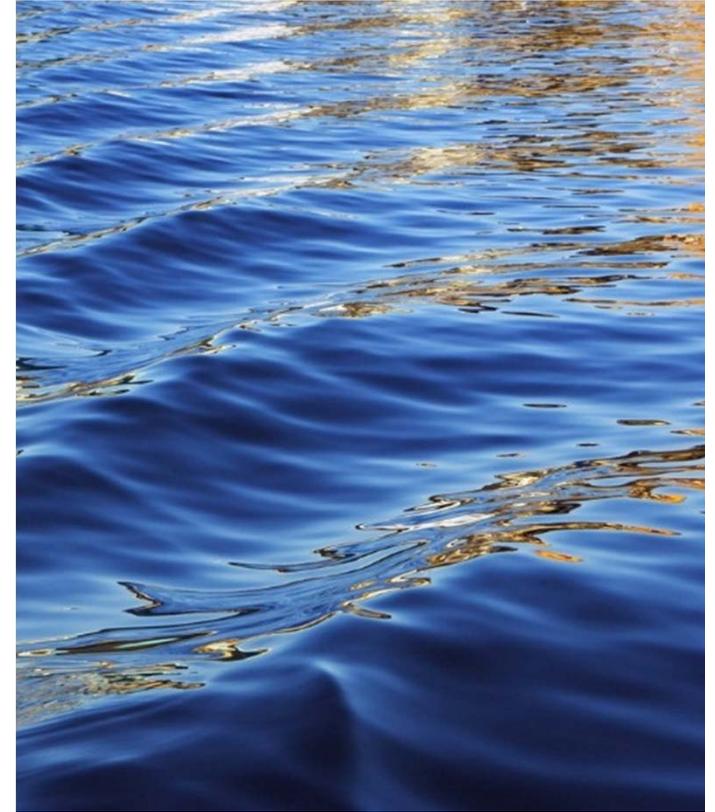
# Fishing/Boating Access Projects





# Cultural

Assessing injury, challenges, preferred restoration



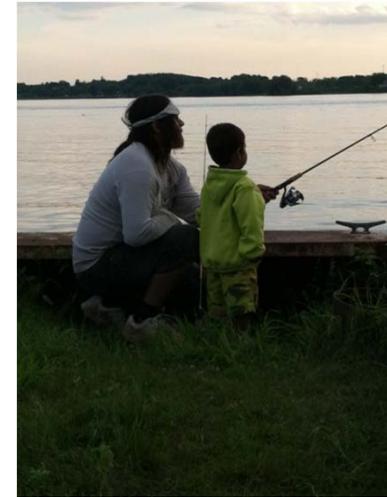
# Assessing Cultural Injury

- Impact on uses of natural resources for traditional purposes
- Community driven approach
- Interviews with elders and others to understand sense of cultural loss and identify compensatory restoration projects
- Anthropology driven approach



# Cultural Restoration Goals

- Seek to promote the restoration of land-based cultural practices and traditional economic activities within the community and preservation of the Mohawk language
- Four areas of traditional cultural practice
  - Water, fishing, use of the river
  - Medicine plants and healing
  - Hunting and trapping
  - Horticulture and basket-making



# Research, Community Outreach & Restoration Planning

- Collection of materials
- Dr. Taiiaki Alfred, principle investigator
- Community Advisory Committee established
- Oral History Project
- Summary Report “The Effects of Environmental Contamination on the Mohawks of Akwesasne”
- Radio announcements, public meetings, newspaper articles and mailing of Cultural Impacts DVD.



# Cultural Restoration Plan

- Apprenticeship Program
- Funding Various Tribal Cultural Institutions
- Promotion of Mohawk Language



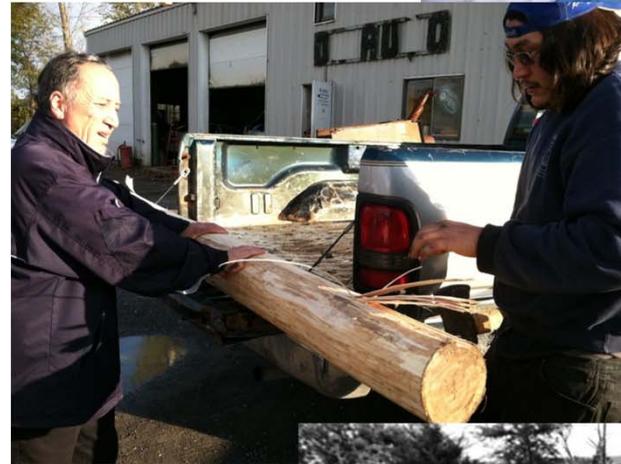
# Cultural Apprenticeship Program

- Learning and teaching through direct experience in the natural environment and the passing of knowledge to younger generations
- Indigenous Approach:
  - Listening
  - Watching
  - Doing
- Goal: Apprentices would reach a point where they possess the skills of a master and can then, in turn, take on a teaching role.



# Apprenticeship Program

- Apprentices learn directly from 'Masters' or knowledgeable community members.
  - Four areas of traditional cultural practices
- Masters, Apprentices, language specialists will be hired to learn and revive cultural practices
- Full-time program for 4-5 years.



# Funding of Cultural Institutions

- Existing Akwesasne-based institutions and youth programs
- Provides necessary financial resources to stabilize their operations
- Institutions chosen with Cultural Evaluation Tool
- 4 Institutions qualified for funding, in the process of revising proposals



# Mohawk Language Restoration

- Core feature of overall restoration plan
- The Goal: to increase number of fluent language speakers
  - All participants in the Master/Apprentice Program and funded Cultural Institutions
- Includes the development of a community-wide strategy to saturate Akwesasne with Kanien'keha /Mohawk using all available print and broadcast media (radio, newspapers, print, video, street signs, education materials, etc.)



## Next Steps...

- Restoration Planning, Feasibility and Design
- Project Implementation - \$20.3M
  - Ecological (Trustees)
  - Fishing/Boating Access (Alcoa)
  - Cultural (SRMT)
- Monitoring
- On-going Outreach



## Hard copies of the RCDP can be reviewed at locations in Akwesasne and Massena

- Akwesasne Library and Cultural Center, 321 State Route 37, Akwesasne, NY 13655, (518)358-2240
- St. Regis Mohawk Tribe Environment Division, 449 Frogtown Road, Akwesasne, NY 13655, By Appointment: (518) 358-5937
- St. Regis Mohawk Tribe Community Building, 412 State Route 37, Hogansburg, NY 13655, (518)358-2272
- Massena Public Library, 41 Glenn Street, Massena, NY 13662, (315)769-9914

# Electronic Copies Are Available at the Following Websites

- NOAA:  
<http://www.darrp.noaa.gov/northeast/lawrence/index.html>
  - (click on Case Documents)
- SRMT: [http://www.srmtenv.org/index.php?spec=nrda\\_main](http://www.srmtenv.org/index.php?spec=nrda_main)
- USFWS: <http://www.fws.gov/northeast/nyfo/ec/stlaw.htm>

## Written Comments Should Be Sent To:

Lisa Rosman c/o NOAA

Assessment and Restoration Division

290 Broadway, 20th Floor

New York, NY 10007

Email: [lisa.rosman@noaa.gov](mailto:lisa.rosman@noaa.gov)

Deadline: May 4, 2013