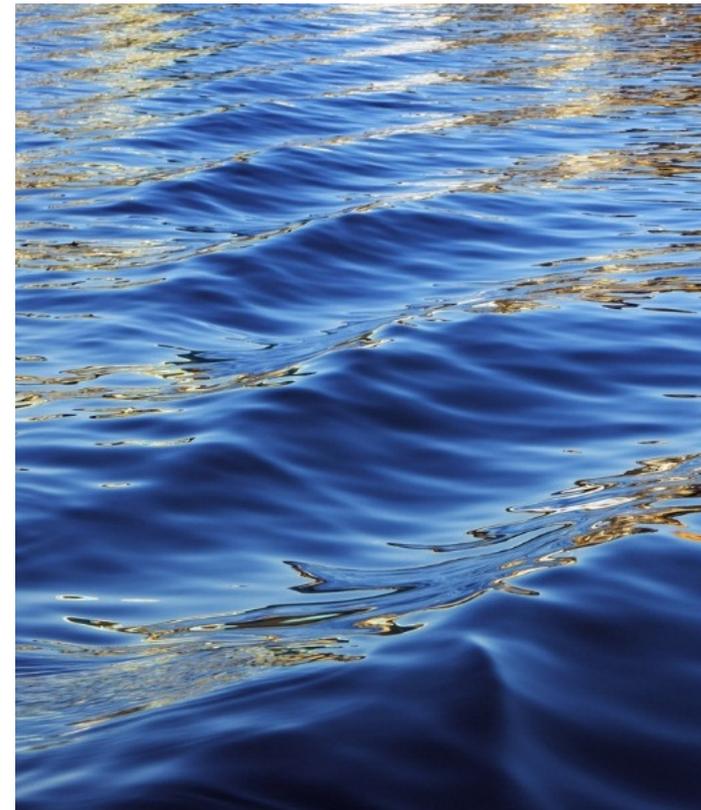




Natural Resource Damages Settlement

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)

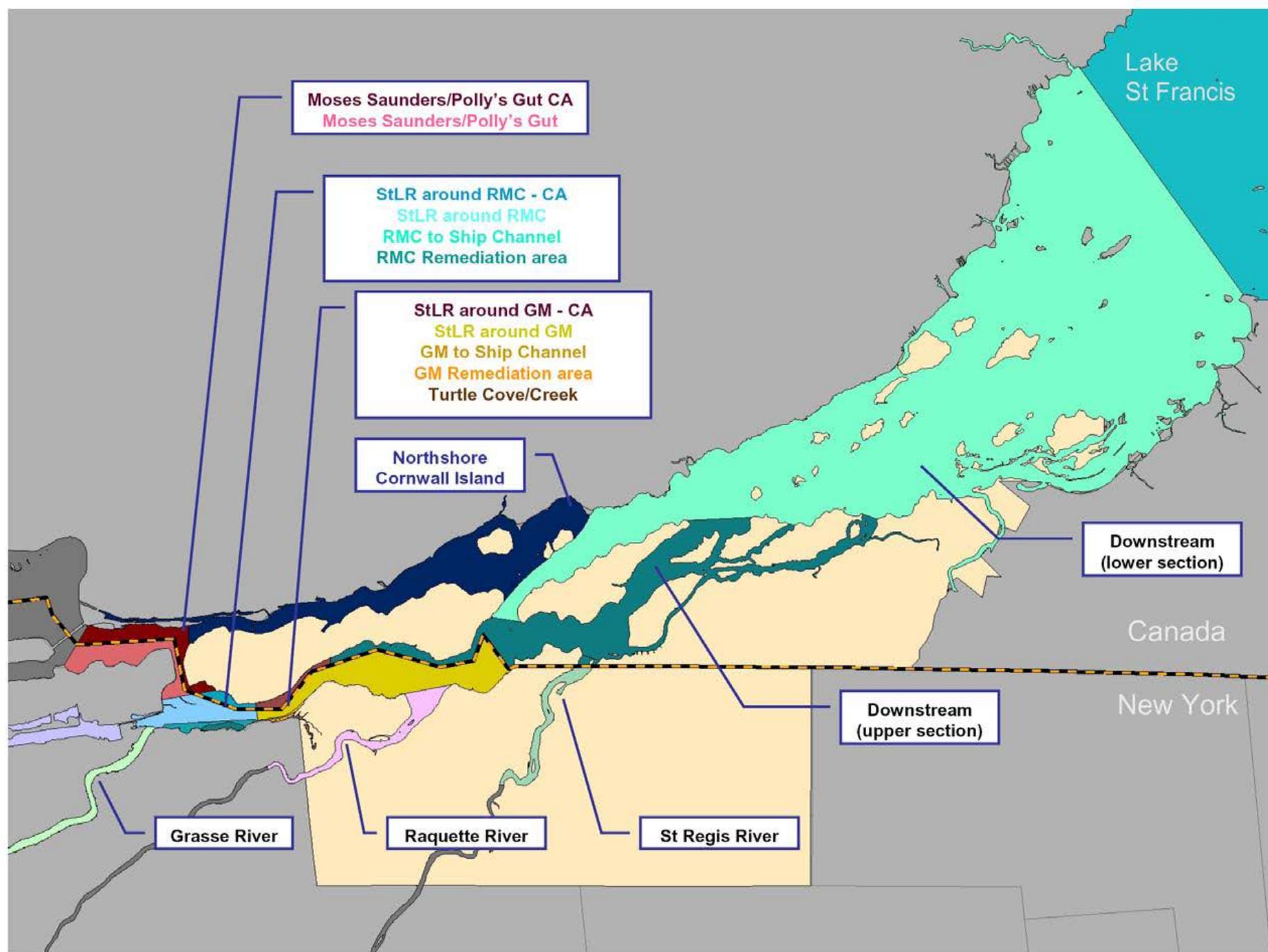
- Regulatory Authority: CERCLA
- “Natural Resources” as defined by CERCLA
- Goals:
 - “To assess the extent of injury to a natural resource and determine appropriate ways of restoring and compensating for that injury.”
 - To “make the public whole” following release of hazardous substances & oil.
- NRDA: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

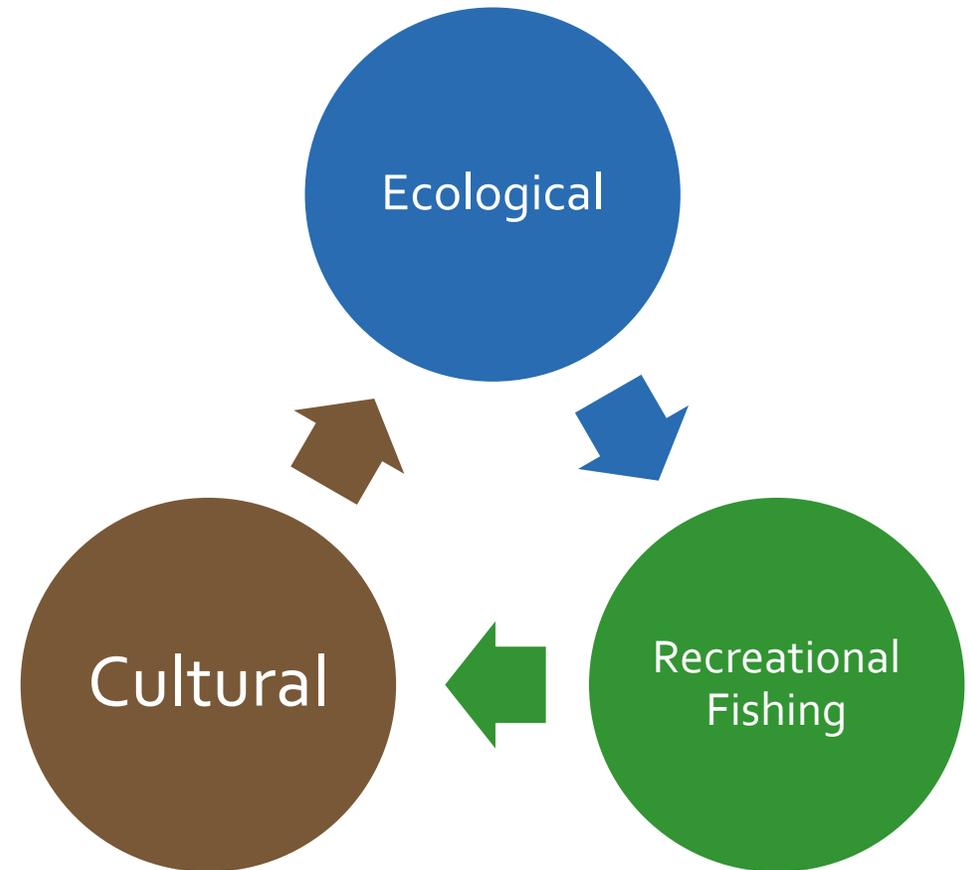
Cooperative NRDA Process

- 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



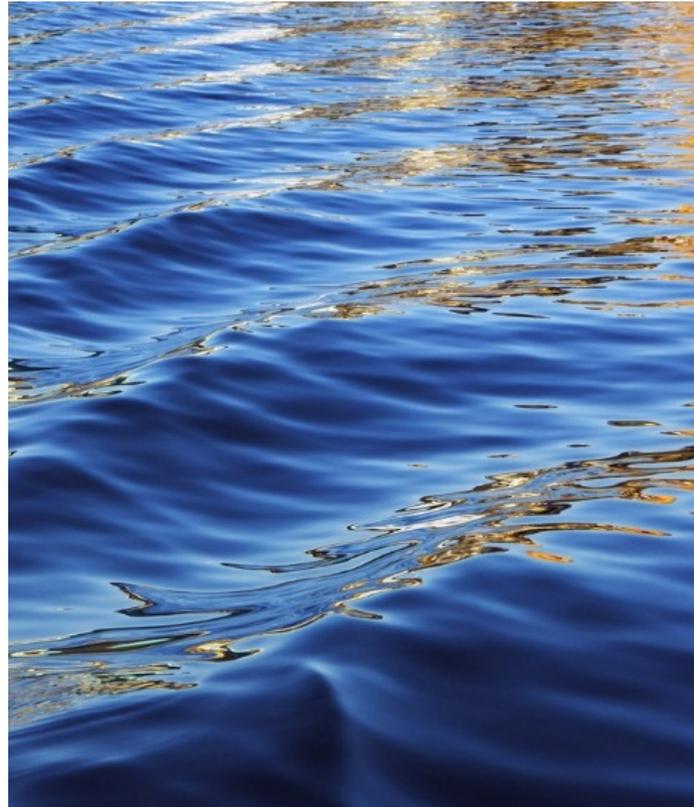
Three Pronged Approach to Damage Assessment

- 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.



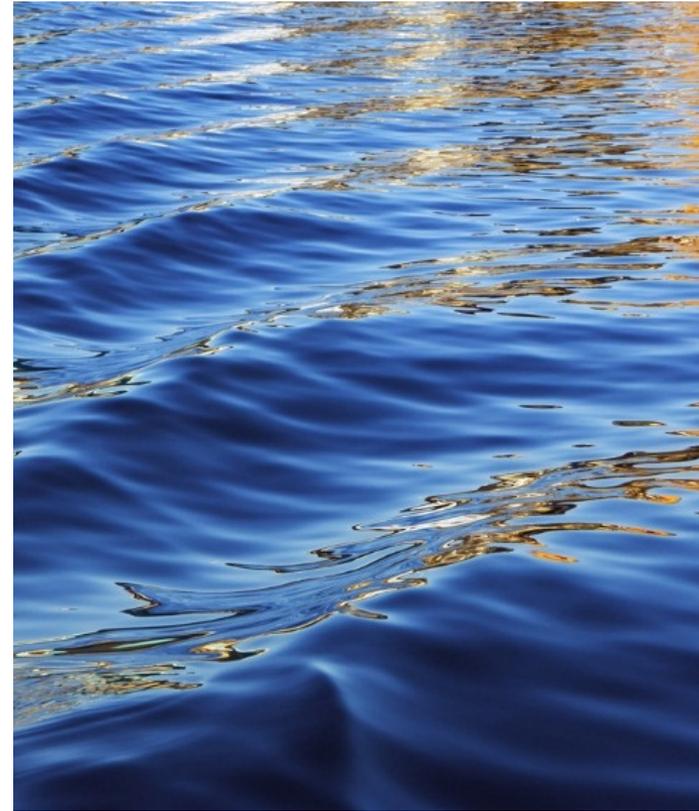
Site-Specific Evaluation Criteria for Restoration Projects

- 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



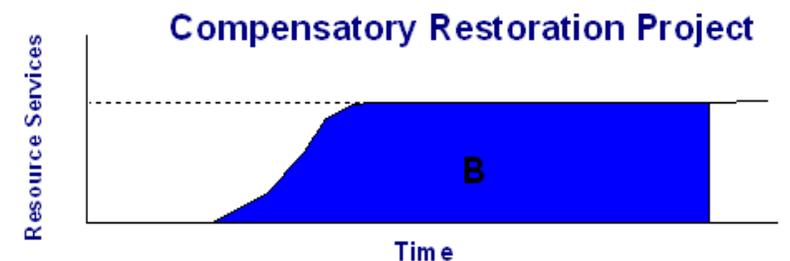
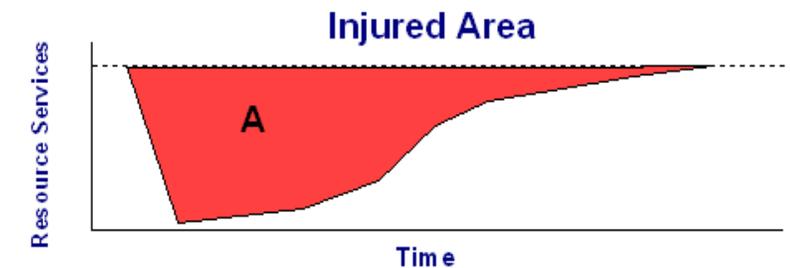
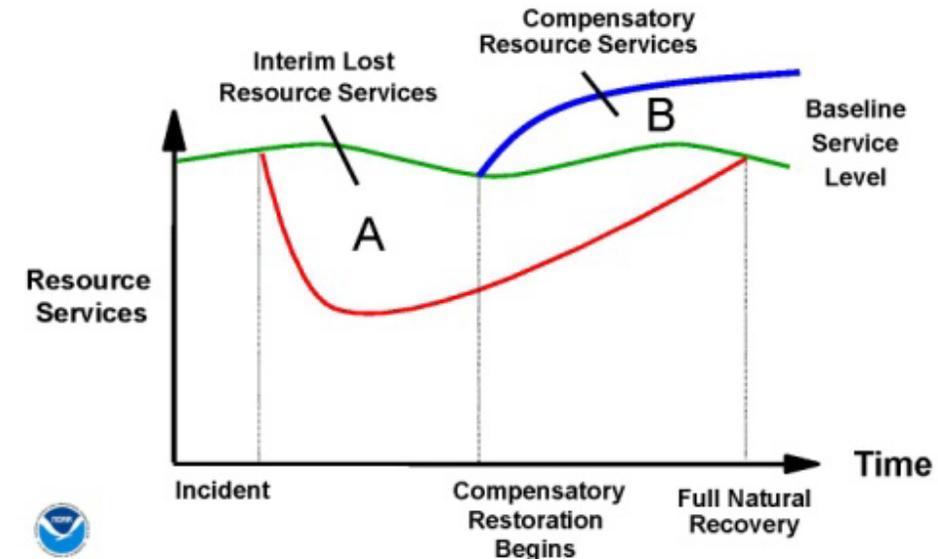
Ecological

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

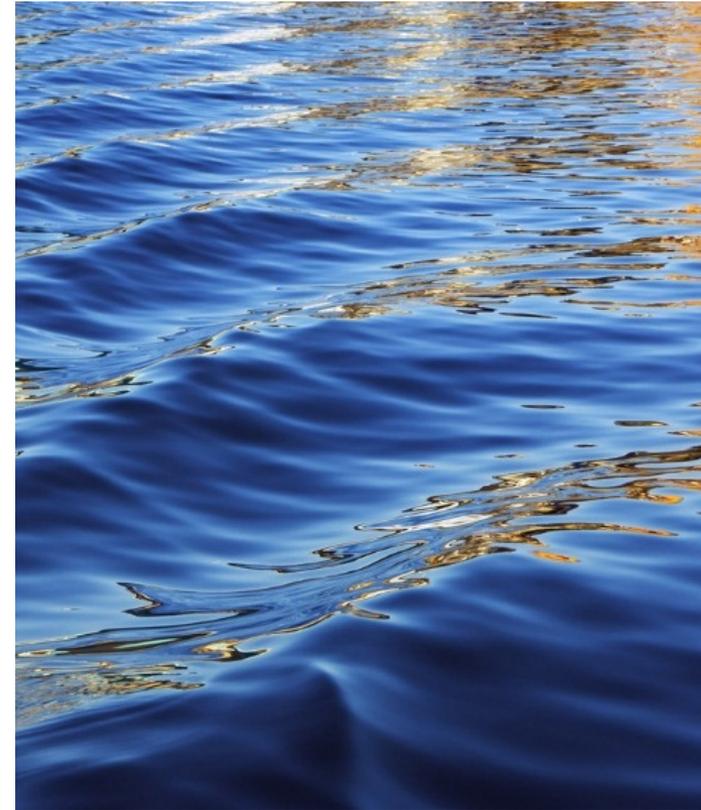
- Streambank Restoration: riparian buffer zones, fencing, revegetation
- Fish Spawning Habitat: Open access to and improve existing spawning areas
- Lake Sturgeon stocking in local rivers from existing or mobile hatcheries
- Atlantic Salmon stocking in local rivers
- Fish Passage (e.g., Dam Removal, 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

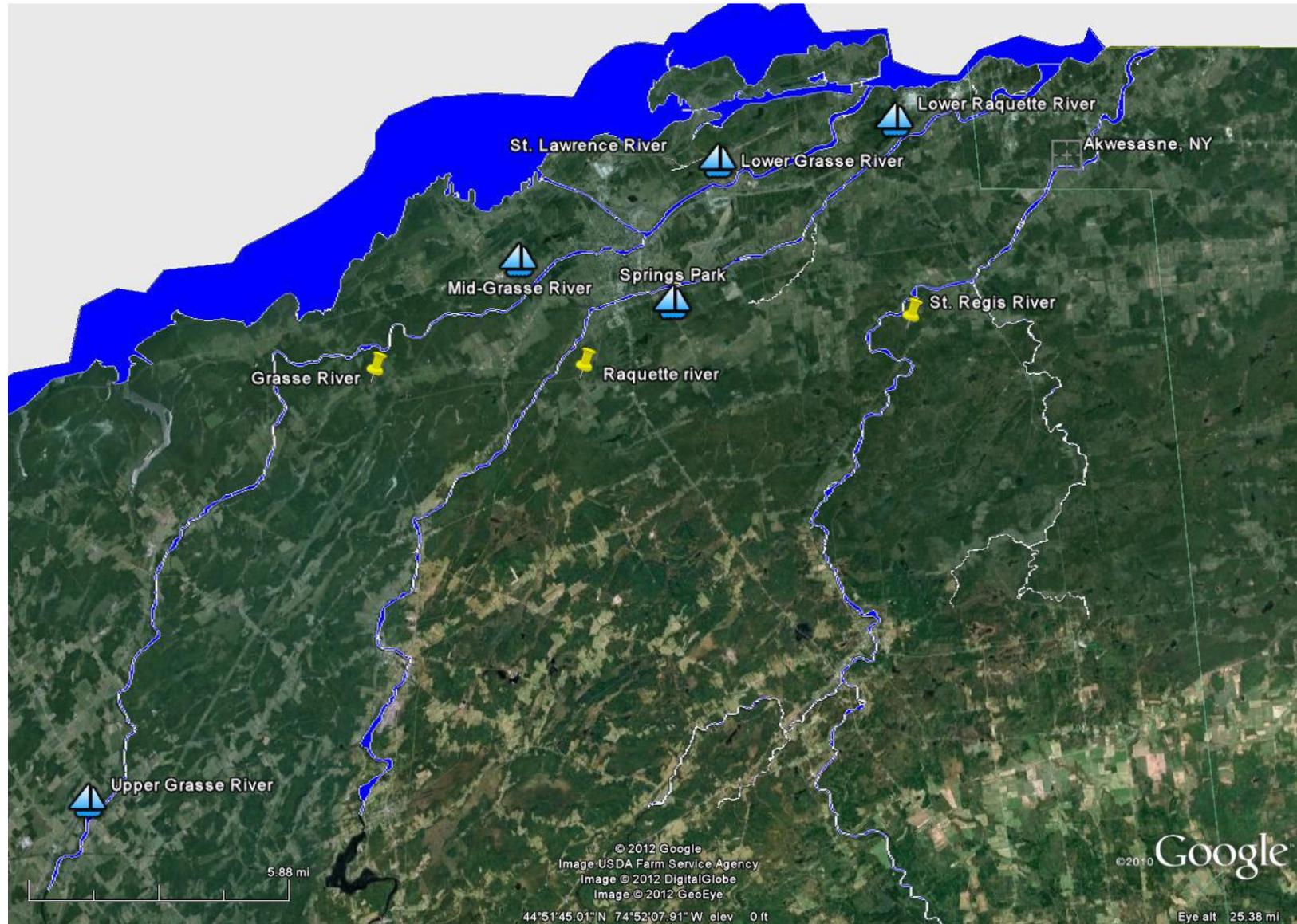
- Grasse River
 - Upper Grasse River
 - Middle Grasse River- upstream of Massena
 - Lower Grasse post-remediation
- Raquette River
 - Mid – River
 - Lower River



Fishing/Boating Access Projects Preferred

		Boat	Canoe	Shore	Parking	Upgrade	New
Mid-Raquette River Boat Launch [Springs Park]		✓	✓	✓	✓	✓	
Lower Grasse River Boat Launch [Rt. 131 Bridge]		✓	✓	✓	✓		✓
Lower Raquette River Canoe Launch			✓	✓	✓		✓
Upper Grasse River Boat Launch [Madrid]		✓	✓	✓	✓	✓	
Middle Grasse River Boat Launch [Rt. 37 Bridge]		✓	✓	✓	✓		✓

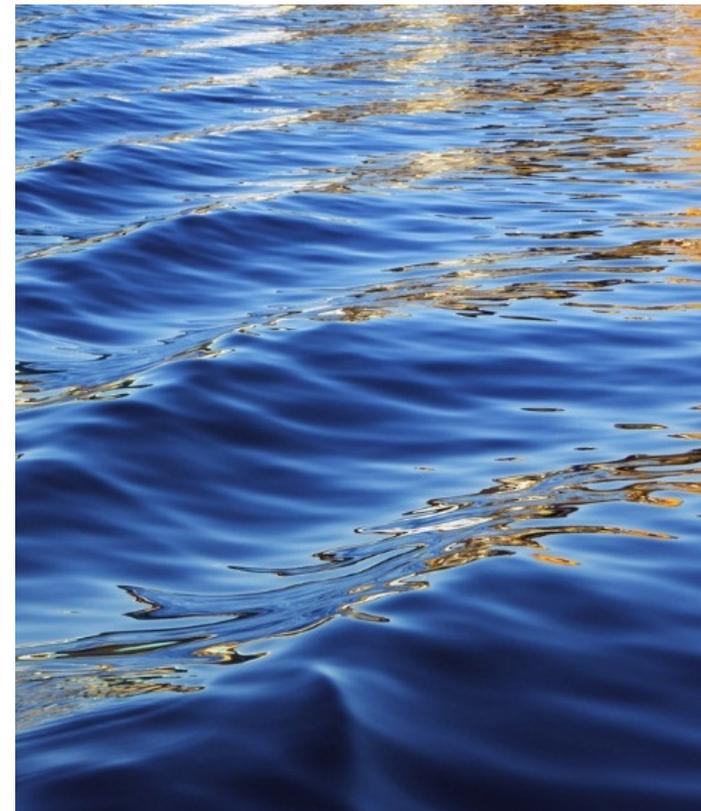
Fishing/Boating Access Projects





Cultural

Assessing injury, challenges, preferred restoration



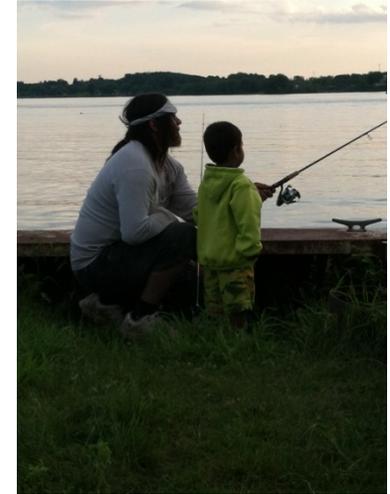
Assessing Cultural Injury

- 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
- USFWS: <http://www.fws.gov/northeast/nyfo/ec/stlaw.htm>

Written Comments Should Be Sent To:

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New York, NY 10007

Email: lisa.rosman@noaa.gov

Deadline: May 4, 2013