

# Grasse River Superfund Site



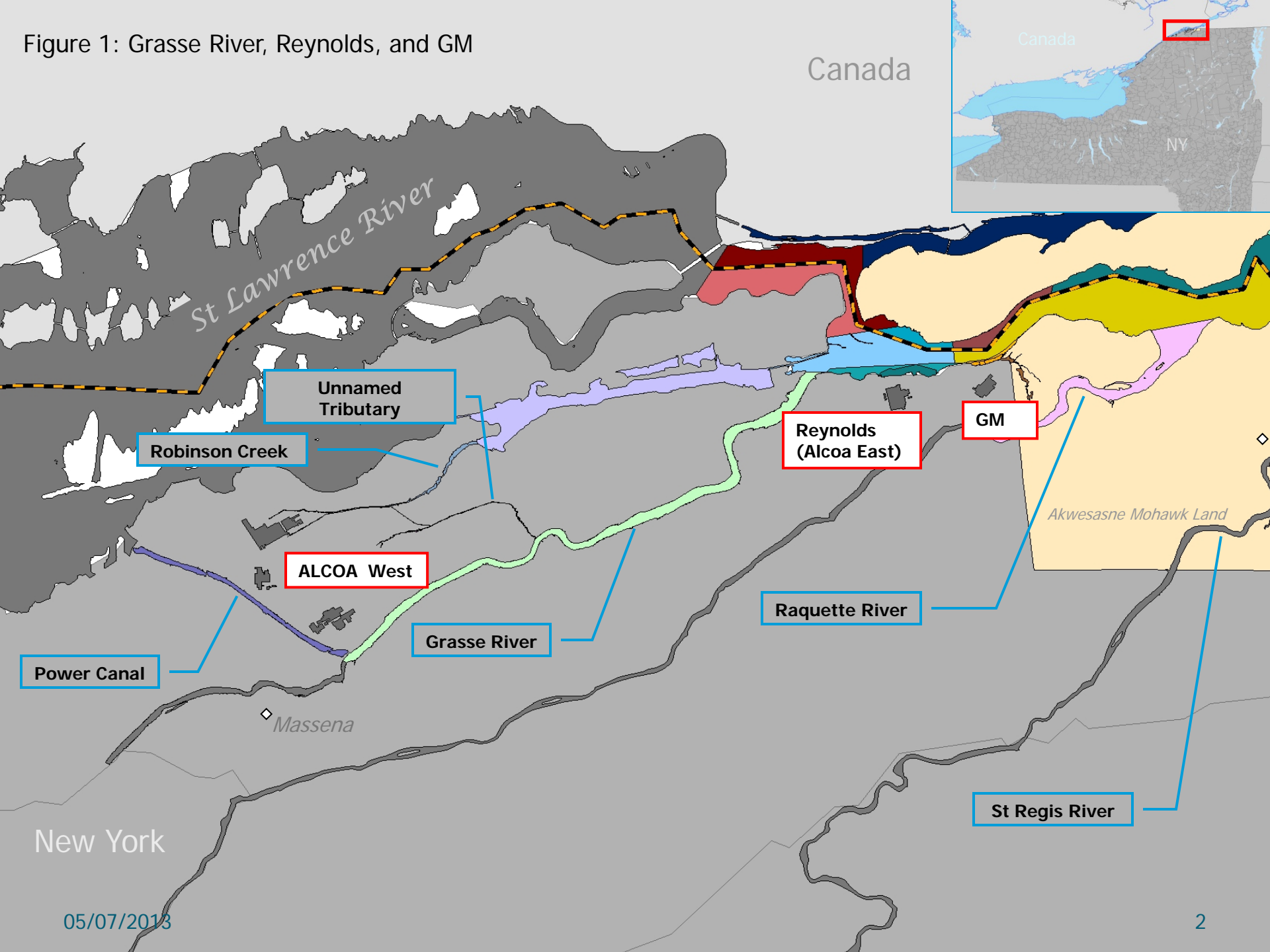
## Public Information Session

May 7, 2013  
6:00 PM – 8:00 PM

St. Regis Mohawk School  
Akwesasne

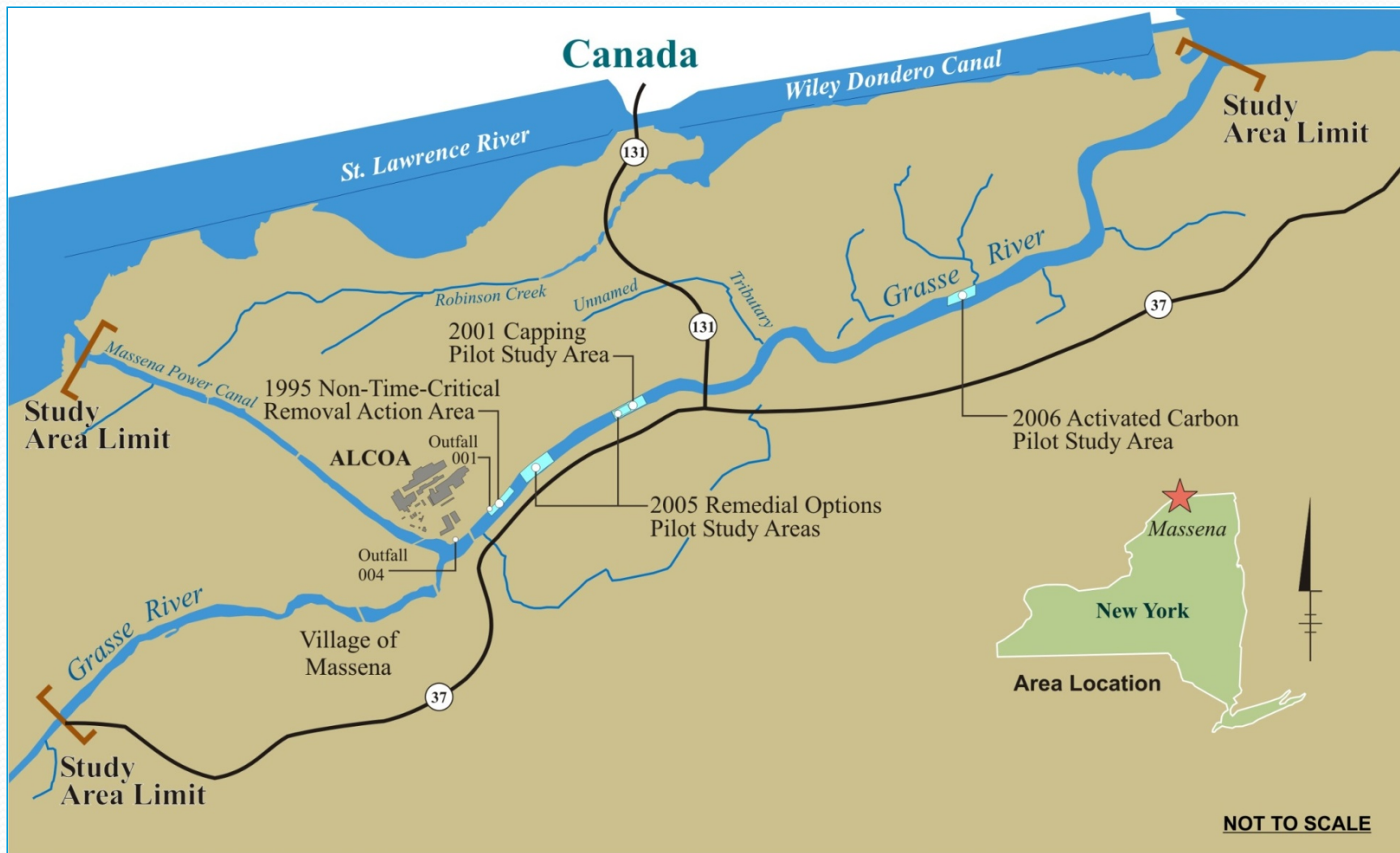
[www.epa.gov/region02/superfund/npl/aluminumcompany/](http://www.epa.gov/region02/superfund/npl/aluminumcompany/)

Figure 1: Grasse River, Reynolds, and GM





# Initial Alcoa Study Area





# Selected Remedy

## Grasse River

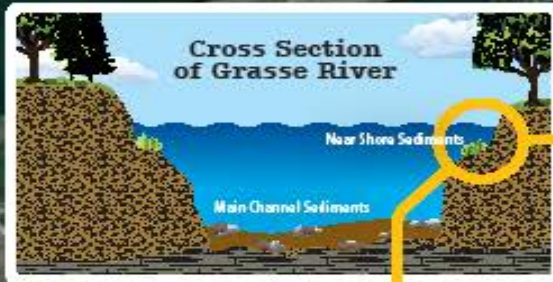
St. Lawrence River

Wiley Dondero Canal

County Route 42

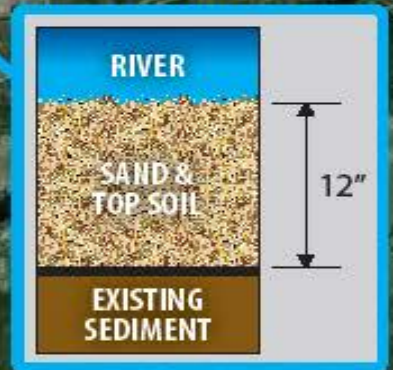
Grasse River

Grasse River



**Dredge and Backfill (Near Shore)**

**Capping (Main Channel)**



**Armored Capping (Main Channel)**

Outfall 001

Alcoa Massena (West Facility)

Massena Power Canal

Town of Massena

0 0.5 1.0

APPROXIMATE SCALE IN MILES



# Selected Remedy

- Dredge all near-shore sediments where PCB concentrations equal or exceed 1 part per million (ppm)
  - Approx. 109,000 cubic yards will be dredged
  - Dredged areas will be backfilled to pre-dredging depths
- Cap all main channel sediments where PCB concentrations equal or exceed 1 ppm
  - Armored cap in ~upper 2 miles
    - where either the “segment length weighted average” or the maximum surface sediment PCB concentrations equal or exceed 1 ppm (~59 acres)
  - Sand & topsoil cap in ~lower 5 miles
    - where maximum surface sediment PCB concentrations equal or exceed 1 ppm (~225 acres)

# Selected Remedy

## (Continued)

- Dewater dredged sediment and dispose in the on-site permitted landfill
- Reconstruct habitat
- Long-term monitoring and maintenance

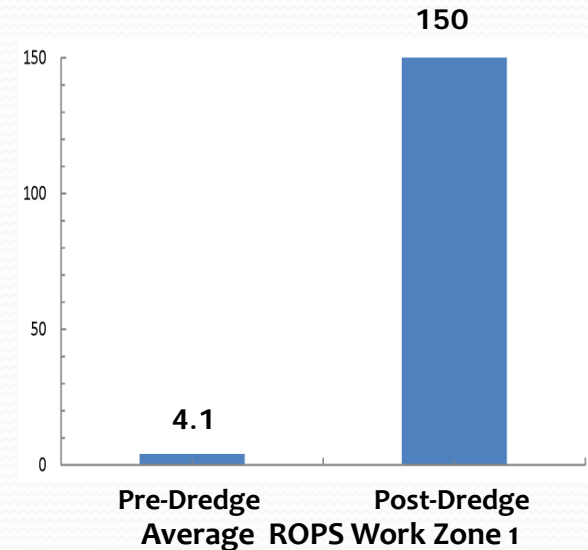




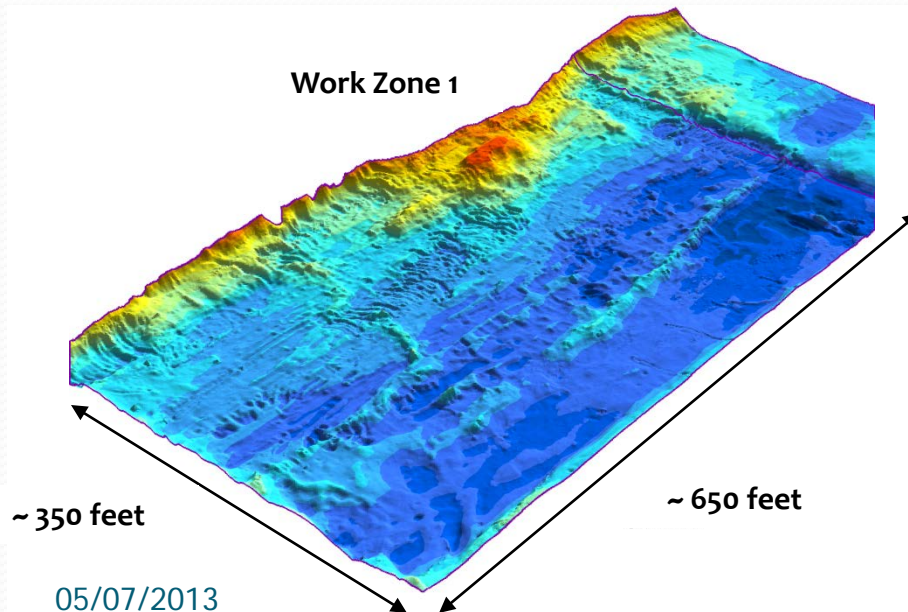
# Why not dredge in Main Channel too?

- Site-specific conditions not conducive to dredging main channel. Dredging main channel results in high residual concentration still requiring capping after extensive dredging.

- Most highly contaminated sediment buried towards the bottom of sediment column
- Irregular, uneven river bottom
- Boulders and rock debris



Sediment (0-3 inches) PCB Concentrations (mg/kg)





# Can armored cap withstand ice jam scouring?

- Armored cap designed and implemented during 2005 ROPS.
- Models used to design armored cap address turbulent flow, velocity, and ice thickness. Designed to protect against scouring forces created under the toe of the ice jam.
- In-river armored cap has been used at contaminated sediment sites to address erosional and scouring forces for which sand/topsoil caps are insufficient.

Armored  
Cap



Photo of Armored Cap 2005 ROPS

Photo of Armored Capped Area 2009







## What happens if the cap fails?

- EPA has confidence in the cap
- Monitoring will identify areas in need of repair as a result of localized erosion by manmade actions or by nature
- If at any time EPA determines that the cleanup is no longer protective of human health or the environment, then EPA may direct Alcoa to implement further response actions for the Site



# Grasse River Superfund Site Q and A