



Volunteers in  
Photo: Declan  
Shalley, Paul  
Tangora, Reed  
Saam

## SALMON TROUT VOLUNTEER STREAM MONITORING PROGRAM

YELLOW DOG WATERSHED PRESERVE

PRESENTED BY MINDY OTTO



# Location

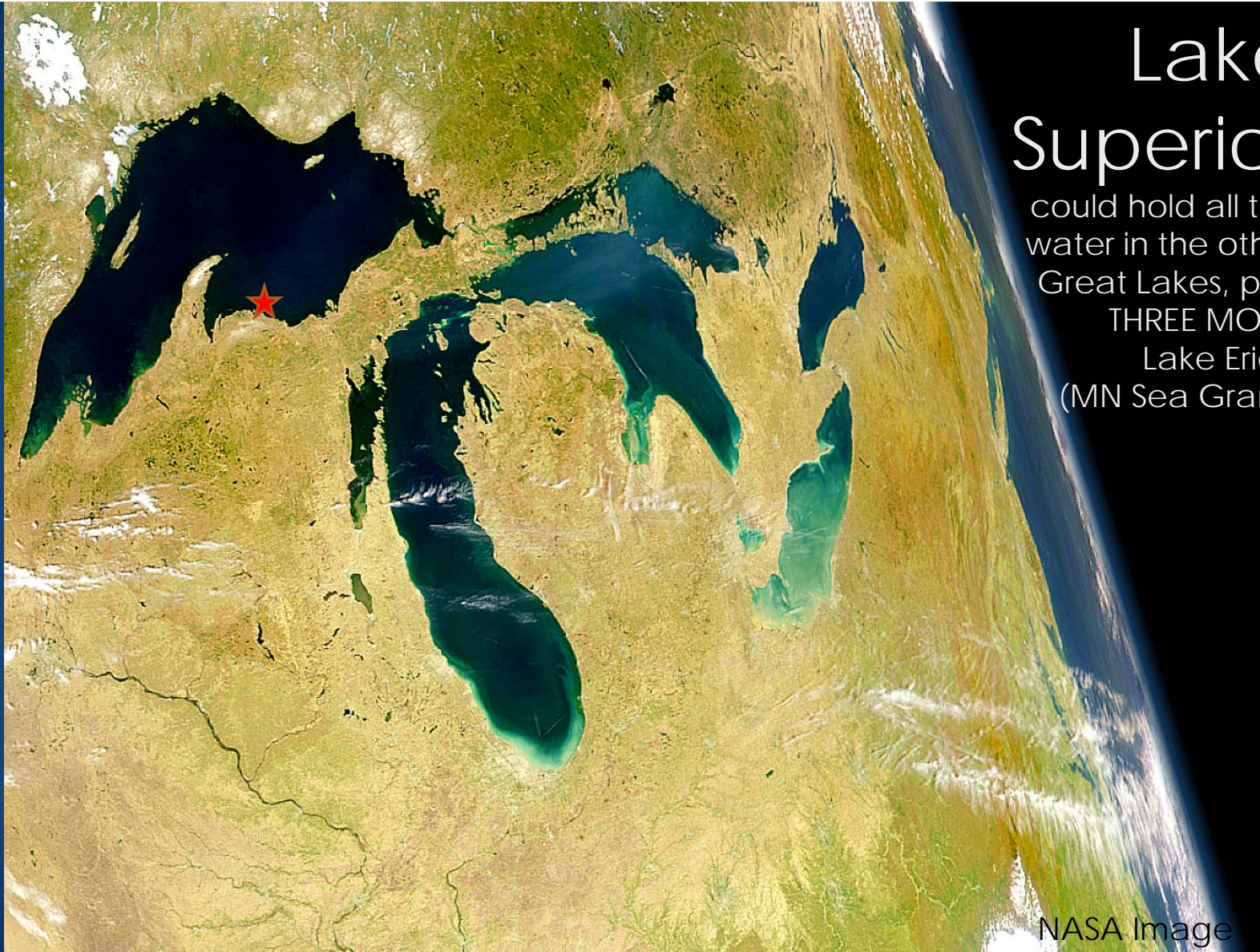
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# Lake Superior

could hold all the  
water in the other  
Great Lakes, plus  
THREE MORE  
Lake Eries.  
(MN Sea Grant)



NASA Image





# About Us

## Yellow Dog Watershed Preserve

- ▶ Formed in 1996
- ▶ Monitor logging activities
- ▶ Two river programs, and one lake program
  - ▶ Yellow Dog River
  - ▶ Salmon Trout River
  - ▶ Lake Independence
- ▶ Mining activity on the plains
  - ▶ Chemical Analysis
  - ▶ MiCorps Program
- ▶ Education, Outreach, Land Trust, Watershed Management Planning



Chauncey "Riverwalker" Moran





# Our Program

## Salmon Trout Volunteer Stream Monitoring Program

- ▶ Granted funding fall 2012
- ▶ Eight sites total
- ▶ Watershed: 49.5 mi<sup>2</sup> (31,687 acres)
- ▶ All tributaries and main stream represented
- ▶ Five sites in upper stretches and tributaries mostly on CFR land
- ▶ Three sites on main stream within the Huron Mountain Club
- ▶ Monitored every fall and spring



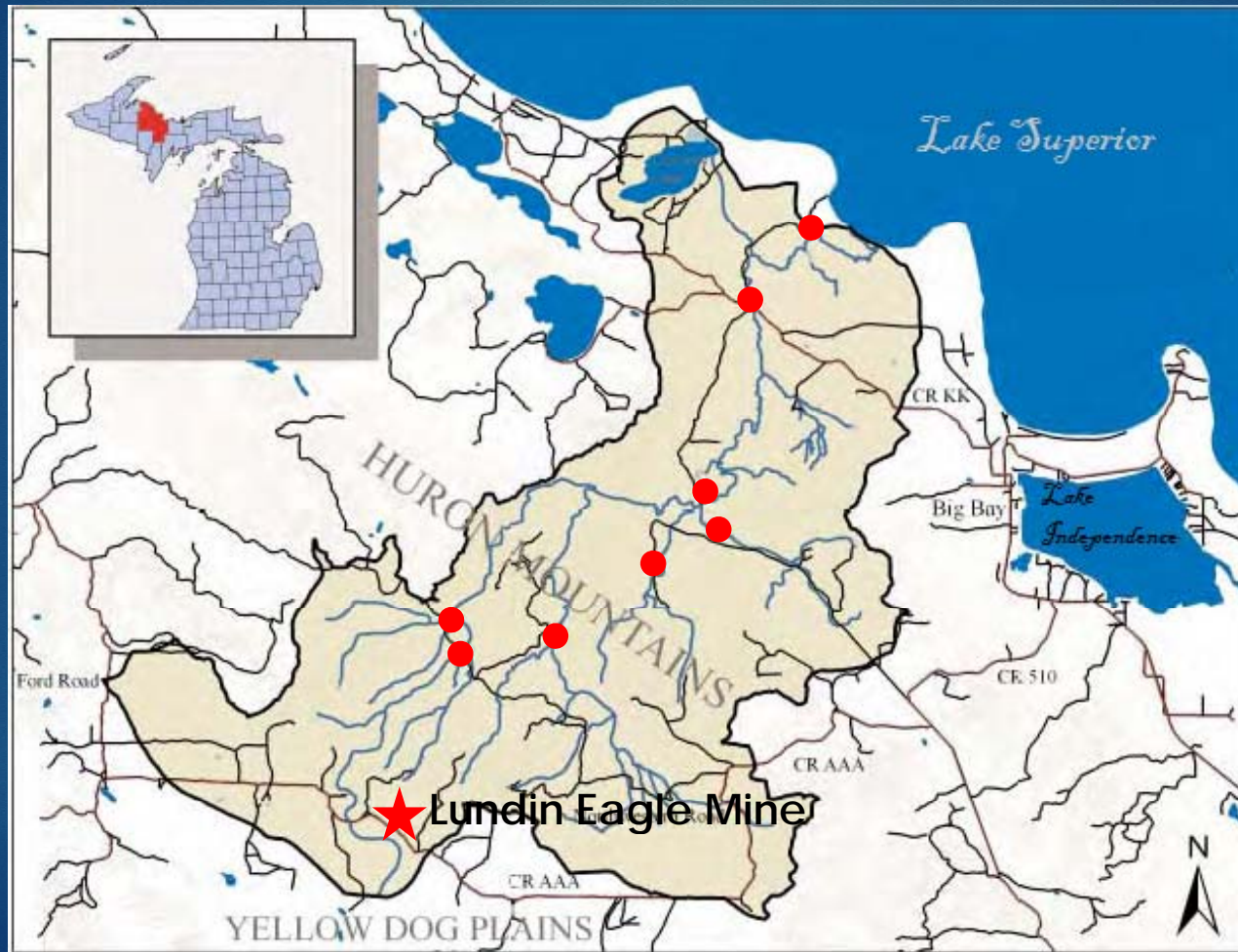
Volunteers Magnuson and Alec Berghoef





# Map of Sites in the Salmon Trout Watershed

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● MiCorps Site

Map: Salmon Trout River Watershed Management Plan, SWP





# About Lundin Eagle Mine

"Sulfide Mining" near the headwaters of the Salmon Trout River

- ▶ Nickel and copper mine
- ▶ 2007 - granted permits by the state
- ▶ Under construction
- ▶ 800 ft below the surface
- ▶ Now owned by Lundin Mining Company
- ▶ 80% complete
- ▶ When ores are crushed, sulfides are exposed to air and water, producing toxic sulfuric acid.
- ▶ The facility has controls such as waste water treatment – high risk





# Eagle Air Emissions Vent and the Salmon Trout River

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# Huron Mountain Club

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- ▶ A private club, formed 1890
- ▶ Three sites in the club
- ▶ One of the largest tracts of old-growth forest in the Great Lakes region.
- ▶ 50 dwellings clustered inside about 13,000 acres (20.3 mi<sup>2</sup>) of private land.
- ▶ Founded to establish a remote hunting and fishing club for outdoor enthusiasts.
- ▶ The original charter limited membership to 50 partners.



Huron Mountain  
View from inside the club





# Problems Encountered

10



Northwest Road



Blind M35



# Total Stream Quality Scores

11

- ▶ One tributary (Clear Creek) is consistently "Fair" (19-33)
  - ▶ New Culvert
  - ▶ Road Erosion on Blind M35
- ▶ One tributary (East Branch) averages "Good" (34-48)
- ▶ Six sites average "Excellent" (>48)
- ▶ Shared on web, in emails to membership (newsletter)



Volunteers Kris Weirenga, Ally Dale, Sandy Nye





# Volunteer Success

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- ▶ Volunteer numbers
  - ▶ First training ever (32)
- ▶ Leadership
  - ▶ Now 4 volunteer leaders
- ▶ Fluctuating



The first Salmon Trout Volunteer Monitoring Training Fall 2012





# Next Steps

- ▶ Continue to work with timber companies to maintain access roads
- ▶ Maintain a good relationship with the HMC
- ▶ Continue to recruit long-term leaders (Lesson learned)
- ▶ Continue to publicly recognize current volunteers and leaders
- ▶ Distribute results widely



Volunteer Leader Carla Gregory





Thanks!  
Questions?

