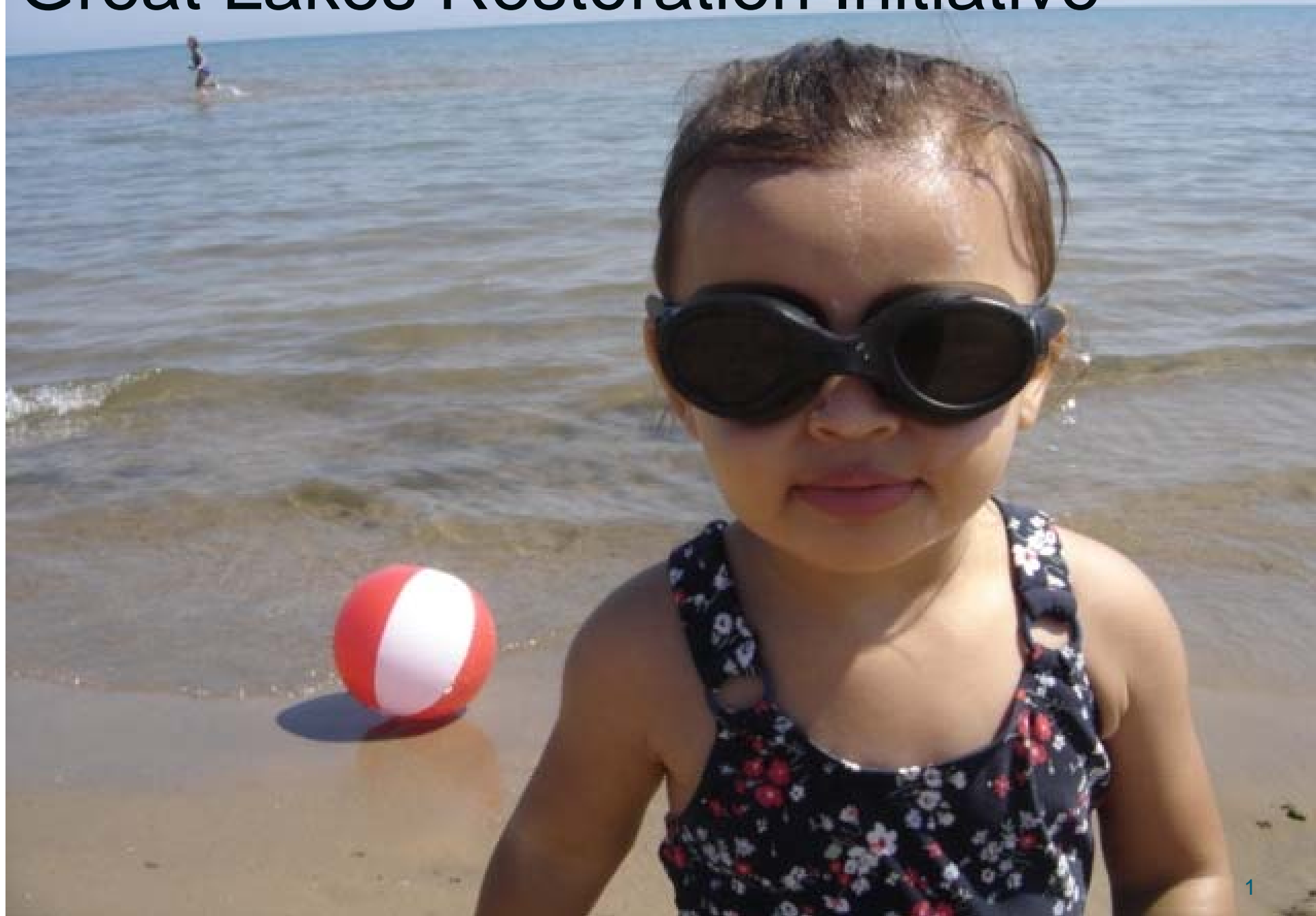


Great Lakes Restoration Initiative



\$475M for GLRI projects to address most significant problems in the Great Lakes

RFP issued 11/23/09 to fund up to 300 projects in 35 program categories within these focus areas:

- Toxic Substances and Areas of Concern (49 projects \$41,445,196)**
- Invasive Species (23 projects \$15,311,206)**
- Nearshore Health and Nonpoint Source Pollution (108 projects \$37,355,201)**
- Habitat and Wildlife Protection and Restoration (65 projects \$55,643,796)**
- Accountability, Monitoring, Evaluation, Communication, and Partnerships (30 projects \$13,284,031)**

GLRI Allocation for all Focus Areas

State	Amount (million)	# of Projects
Illinois	\$11.4	25
Indiana	\$6.3	11
Michigan	\$63	99
Minnesota	\$9.7	14
New York	\$19.6	33
Ohio	\$17.2	28
Pennsylvania	\$1.2	4
Wisconsin	\$29	50

http://greatlakesrestoration.us/glri_grants.pdf

Nearshore Health and Non Point Source Pollution



- **Beach Sanitary Surveys (43 grants)**
- **Communicating Beach Monitoring to Public (8)**
- **Beach Forecasting Models (8)**
- **Improving Beach Monitoring for Bacteria (5)**
- **Development of Nearshore Indicators and Endpoints**
- **Nearshore Waters Impairments and Stressors**
- **Total Maximum Daily Loads (TMDLs) (non-toxicant)**
- **Watersheds Best Management Practices, Planning and Implementation**
- **Innovative Environmental Approaches**

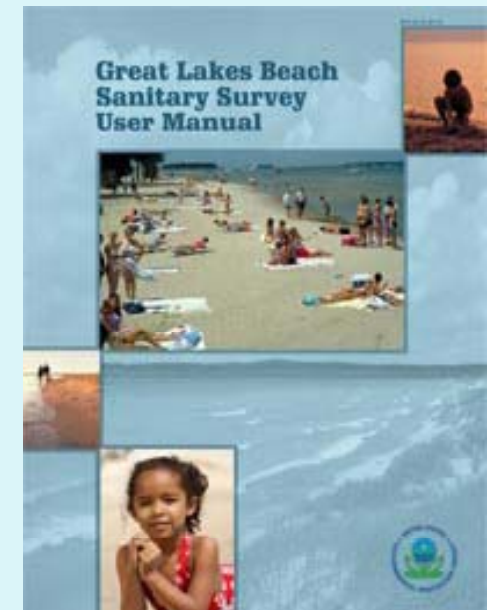
http://greatlakesrestoration.us/glri_grants.pdf

Beach Sanitary Surveys

\$10,010,081 for 43 projects to:

- **To Identify pollution sources with annual and routine beach sanitary surveys.**
- **To implement actions to reduce contamination.**

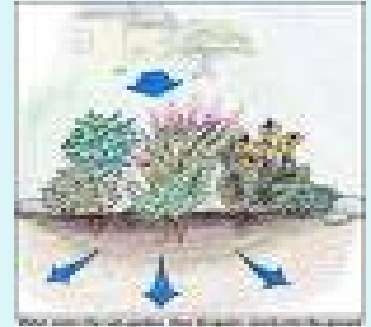
Great Lakes Beach Sanitary Survey User Manual and sanitary survey forms at:



http://water.epa.gov/type/oceb/beaches/sanitarysurvey_index.cfm

Beach Sanitary Surveys

- Sanitary surveys to be conducted at 521 beaches at all Great Lakes.
- Assessing infrastructure.
- Implementing “green” storm water management measures.



Beach Sanitary Surveys

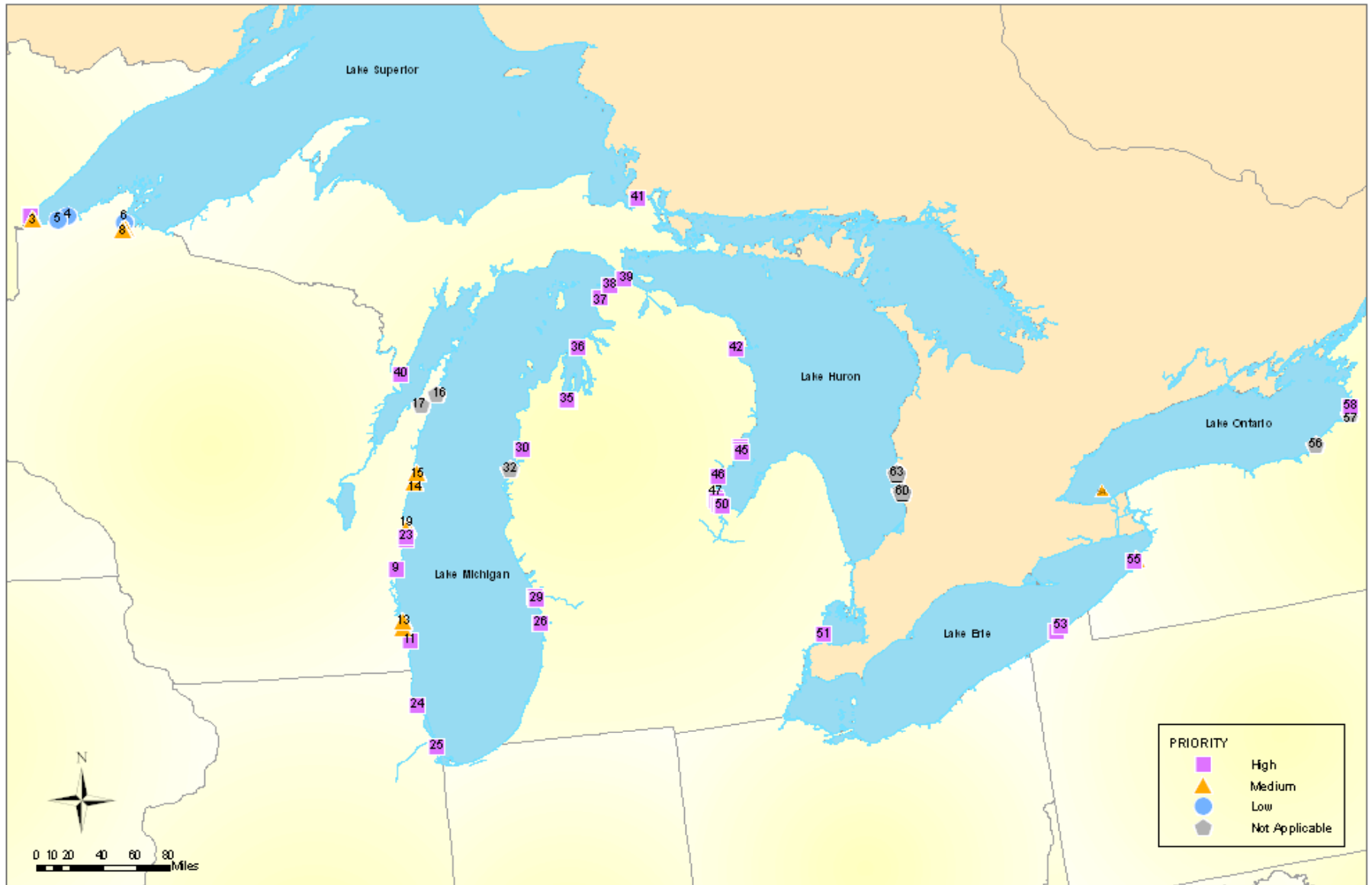
City of Chicago's Ring-Billed Gull Management Project

- Monitoring gull use
- Oiling 20,000 – 40,000 eggs
- Employing canine harassment
- In 2008, gulls deterred from loafing at 57th and 63rd St beaches, significantly improving water quality.



	2006	2007	2008	2009
63 rd Street Beach	37 (38%) exceedances	45 (46%)	4 (4%)	47 (48%)
57 th Street Beach	17 (18%)	19 (20%)	0 (0%)	22 (23%)





GREAT LAKES BEACH SANITARY SURVEY LOCATIONS



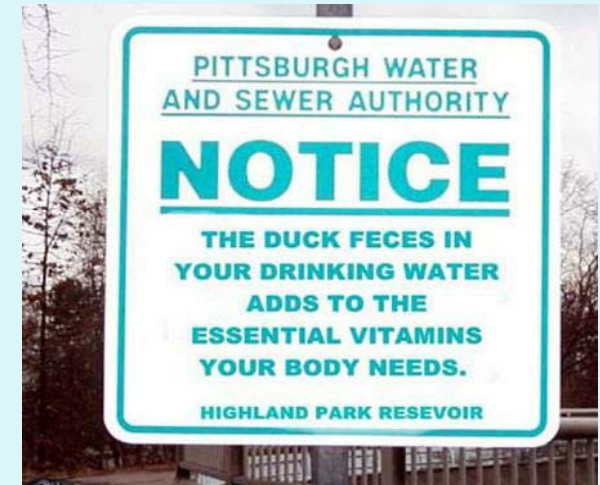
Communicating Beach Monitoring to Public

\$1,030,027 to improve beach health communication to the public.

- Strengthening Beach Management (GLC)
- GL Beach Information Communication System (U of MN)
- Healthier GL Beaches through Improved Communication (MDNRE)
- A Comprehensive Communications Program for Chicago Beaches (CPD)
- Beach Advisories Through Smartphones (GLC)
- Improving Communication about Beach WQ (ODH)
- Development of a Beach Safety Outreach Program for WI (WDNR)
- Web-based Public Access to Beach Water Quality Information (NYSDH)

Communicating Beach Monitoring to Public

Text beach name to: 312-715-7946



Beach Forecasting Models

\$1,447,557 to develop new or refine existing models to estimate beach water quality



Expanded Beach “Nowcast” Modeling across Wisconsin (WDNR)

60 Hour Beach Forecasting Models (UofMI)

Forecasting Beach and Nearshore Health Effects using QMRA
(MSU)

Michigan Beaches-Developing and Integrating Models (MDNRE)

Development of Swimcast Models at Four Chicago Beaches (CPD)

Beach Forecasting Model with Supporting Weather Station
Network (Erie Co. Dept of Health)

Process Based Predictive Models for Complex Urban Beaches
(NEORSD)

Presque Isle Beaches – Bacterial Forecasting Model (Regional
Science Consortium at TREC)

Beach Forecasting Models

SwimCast model installed in 2008 in Chicago. Models will be installed at Calumet, Montrose and Foster Beaches.

63rd Street Beach, Chicago, Illinois



Forest Park Beach, Lake Forest, Illinois



SwimCast in Lake County, Illinois, 85-90% effective at predicting whether WQS will be exceeded.

Improving Beach Monitoring for Bacteria

\$1,014,064 to implement use of currently available methods to improve effectiveness of monitoring.

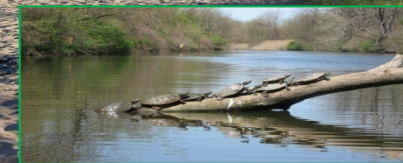
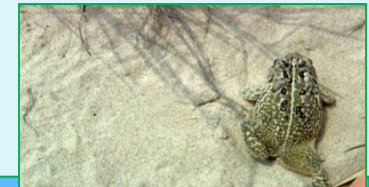
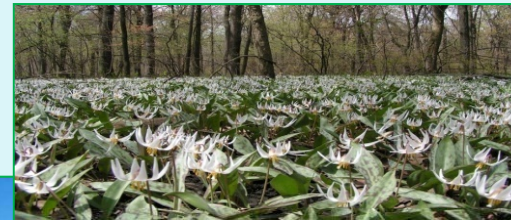
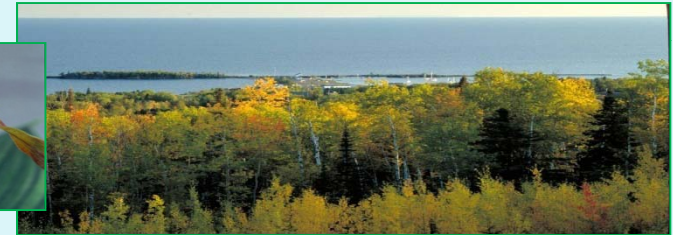
- Implementation of Rapid Test Methods at Lake Ontario Beaches (NYSDH)
- Establishment of Regional Rapid Method Test Facilities Throughout Wisconsin (UW-Oshkosh)
- Building Beach Manager's Capacity for Using Rapid Tools (MDNRE)
- Rapid Method Data Comparison at Bathing Beaches in Ohio (NEORSD)
- Selective, Multiplexed, Real-time Detection of Bacteria (Northeastern OH Universities College of Medicine)

Great Lakes Restoration Initiative

What We Are Protecting and Restoring



- 6 quadrillion gallons of water
- 20% of the world's and 95% of N. America's fresh surface water
- 56 billion gallons used daily
- Drinking water for 42 million people
- 10,000 miles of coastline
- 217,000 hectares of coastal wetlands
- 600 sand beaches in the US
- World's largest collection of freshwater sand dunes
- 31,000 islands
- 70 million people visit parks annually





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