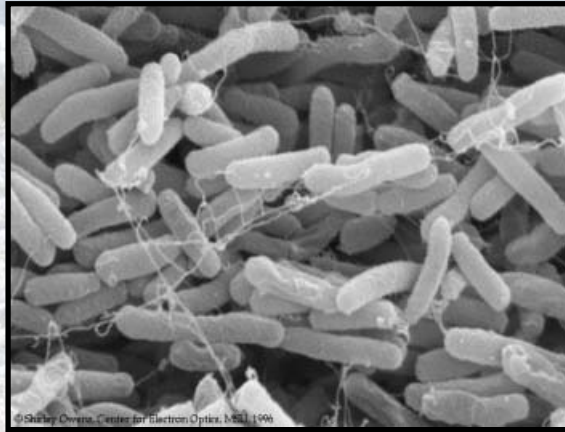


GLRI Projects

UW – Oshkosh and Racine County



Gregory T. Kleinheinz, R.S., Ph.D.

Department of Biology and Microbiology
University of Wisconsin – Oshkosh
Oshkosh, WI 54901
Phone - (920) 424-1100
Fax - (920) 424-1101
E-mail - kleinhei@uwosh.edu

Funded GLRI Projects

- **Beach Sanitary Surveys (BSS) of High Priority Northern Wisconsin Beaches**
- **Beach Sanitary Surveys (BSS) of High Priority Northern Wisconsin Beaches**
- **Establishment of regional rapid method testing facilities**
- **Collaboration with BayLake Regional Planning Commission to Conduct Beach Sanitary Surveys at beaches in Northeast Wisconsin.**



Beach Sanitary Surveys (BSS) of High Priority Northern Wisconsin Beaches

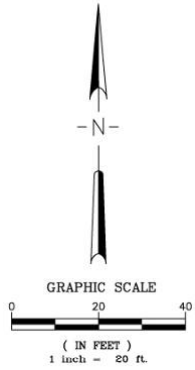
- **Conduct BSS at all 303d listed beaches in northern Wisconsin.**
 - **Lake Michigan and Lake Superior**
- **~20 beaches studied over 3 years.**
- **Use of BSS tool at one inland beach**
 - **Applicability to inland lakes.**
- **Beach redesigns and mitigation plans (BMP) at 4 locations.**
 - **Based on BSS results**
- **BMPs can be developed for additional locations.**
- **Other locations and future BSS work and BMPs.**

Beach Sanitary Surveys (BSS) of High Priority Southern Wisconsin Beaches

- **Julie Kinzelman is the lead on this project.**
- **Conduct BSS at all 303d listed beaches in southern Wisconsin (Lake Michigan).**
- **~20 beaches studied over 3 years.**
- **Use of BSS tool at one inland beach**
 - **Applicability to inland lakes.**
- **Beach redesigns and mitigation plans (BMP) at 4 locations.**
 - **Based on BSS results**
- **BMPs can be developed for additional locations.**
- **Other locations and future BSS work and BMPs.**



**Approach adopted from successful model used
in Wisconsin from 2003-2010**



REMOVE EXISTING
ROCK JETTY

GREEN BAY

GROOMING TRACTOR
ACCESS LOCATED ON
ADJACENT PROPERTY

SAND BEACH NOURISHMENT AREA

ASPHALT DRIVE

4' WIDE CORD
WALK PATH, TYP.

1 STORY
BLOCK
BUILDING

EXISTING
CONTOUR, TYP.

REMOVE STAIRWAY,
ROCK RETAINING
WALL AND RIP RAP
TO PROPERTY LINE.

PROPOSED
CONTOUR,
TYP.

6" PVC
INV. 586.0'

BIO-FILTER

LINE EDGE OF
PARKING LOT WITH
NATIVE VEGETATION

MHSA
RIM=590.41
INV.=575.41

ASPHALT PARKING

RICNIC
TABLE

DRAINAGE
SWALE, 2-8"
DIA: ROUNDED
GRAVEL AND
COBBLES

ASPHALT PARKING & DRIVE

CONCRETE CURB
& GUTTER

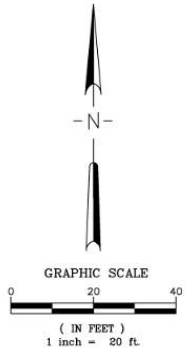
MHSA
RIM=593.78
INV.=575.58

BM 14PFB 1958
CONCRETE MONUMENT
WITH BRASS CAP
ELEV.=589.50 NGVD 1929

ALPINE ROAD

590

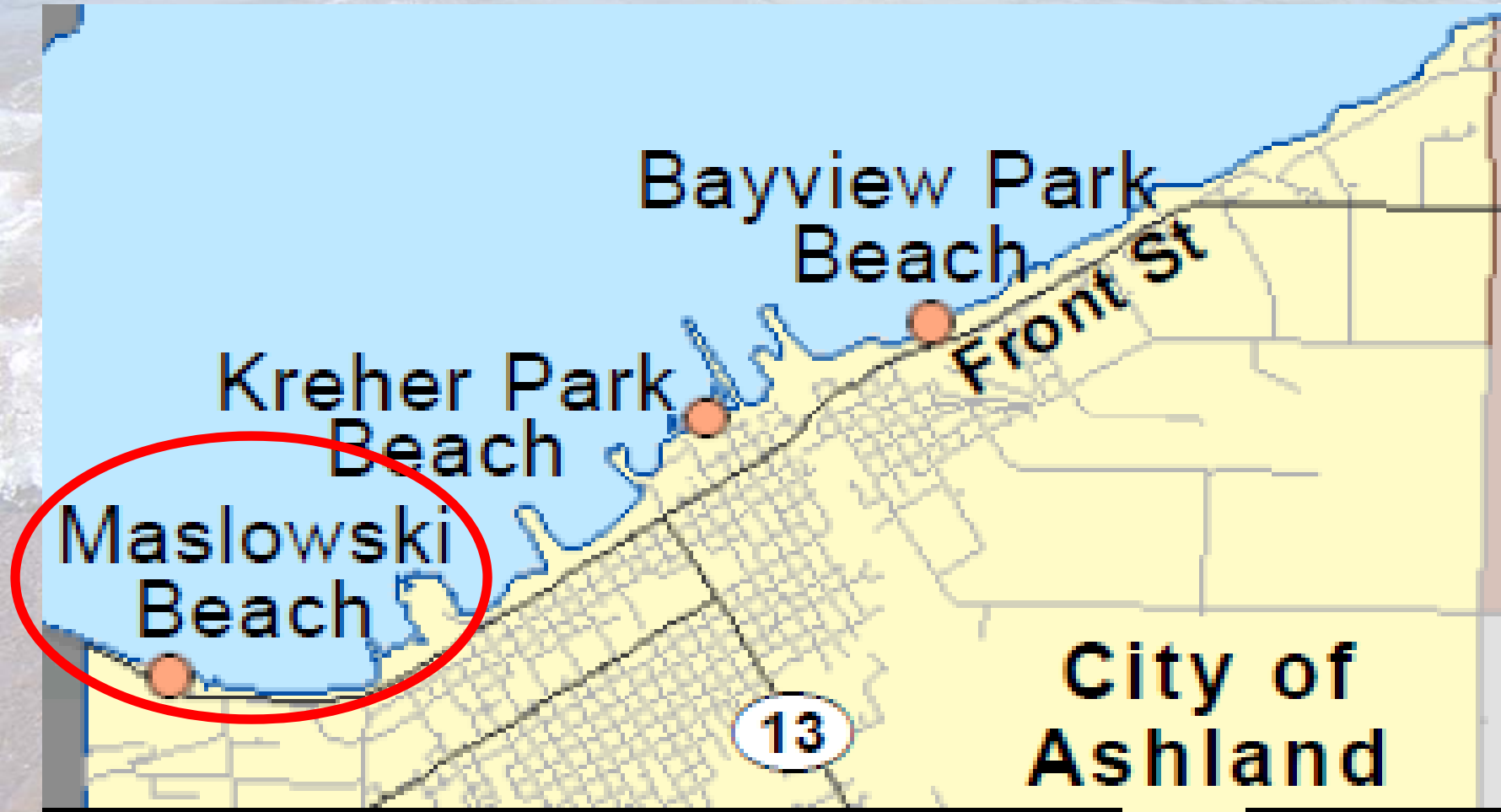




GREEN BAY



Ashland County Beaches





Average *E. coli* Values for Spatial and Depth Sampling

80.74	63.41	57.6	48"
253.89	174.11	214.35	24"
410.75	371.18	376.45	12"

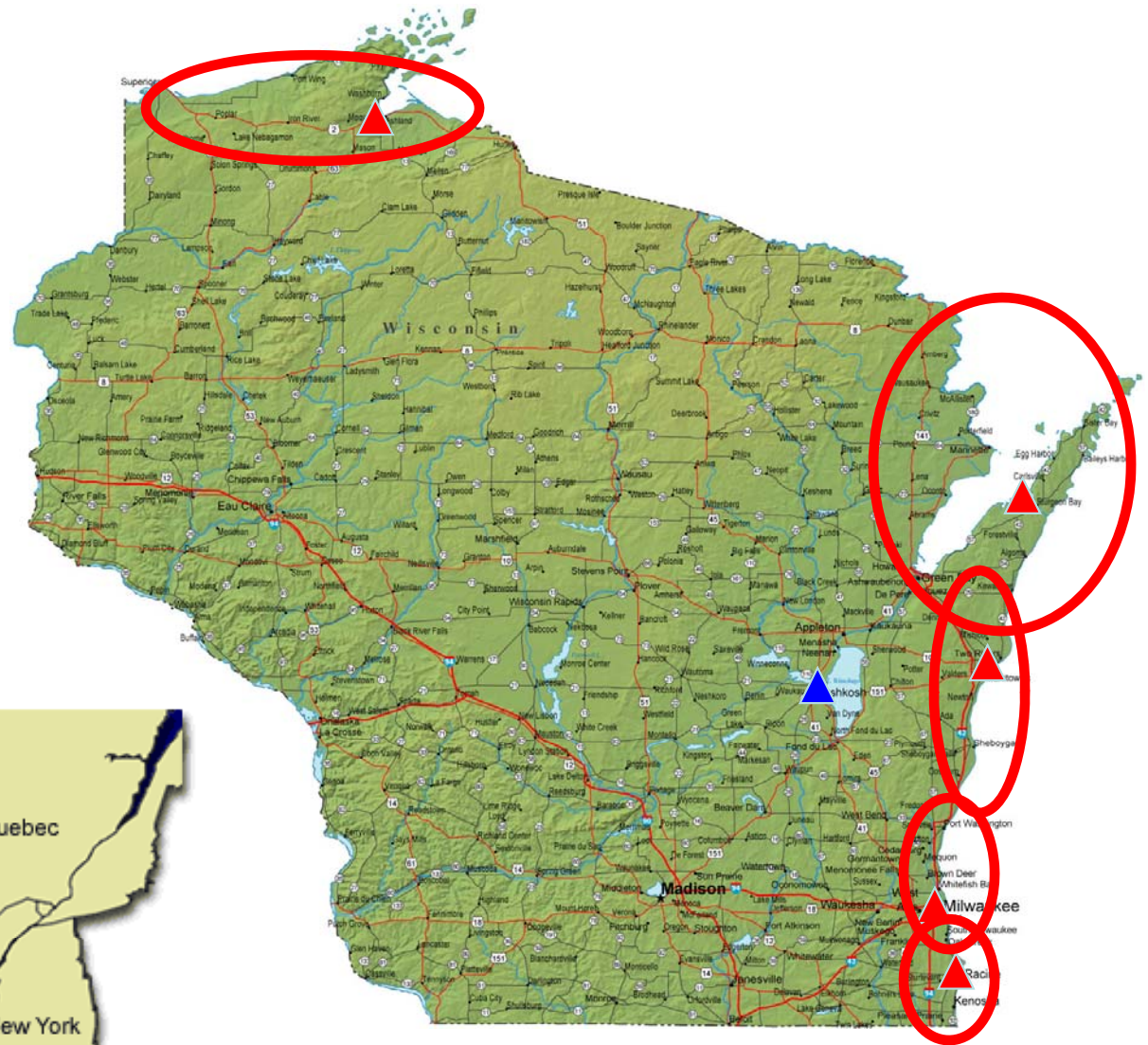
Average *E. coli* Values for Sand Sampling



Maslowski Outfalls



Lab Locations





Establishment of Regional Rapid Testing Facilities

- Use existing facilities for regional access to rapid (qPCR) testing.
- Investigate local needs and infrastructure.
- Set-up locations with needed equipment and supplies for conducting qPCR.
- Develop training tool to minimize variability between analysts and locations.
- Begin evaluation of qPCR as a monitoring tool at the local level.
- Goal: Any beach in Wisconsin will be within 1 hour of a rapid testing facility and use rapid methods.



Beach Sanitary Surveys at Beaches in Northeast Wisconsin

- **Partner with regional planning commission.**
 - **No beach experience.**
 - **Leverage other GLRI efforts.**
- **Conduct BSS at 12 locations in northeast Wisconsin.**
- **Beach redesigns at 10 select locations.**
 - **Based on BSS results.**
- **Other locations and future BSS work and BMPs.**

Conclusions

- **GLRI allows for efficient work on beaches and beach health.**
 - ◆ **Concurrent funding.**
- **Leveraging multiple projects and other activities provides cost-effective use of financial resources.**
- **Increase in laboratory capacity at the local level.**
- **Future projects can build on current projects.**
 - ◆ **Sustainability.**
- **Partnerships are key to success.**



Thank you!