SO YA WANNA KNOW ABOUT CLMP DO YA?

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“BLESS YOU, FATHER ANGELO SECCHI”


25ft
2
STANLEY®
3

THE GLQO WATERSHED JOURNAL

The Gull Lake Watershed includes Gull Lake, Little Long Lake, Grassy Lake, Little Gull Lake, Miller Lake, Bullhead Lake, Duck Lake, Bookus Lake, Duke Lake, Ellinton Lake, Mud Lake, Wintergreen Lake, and Prairieville Creek.

GULL LAKE QUALITY ORGANIZATION

FALL FLING FUNDRAISER

You are cordially invited to the GLQO's second annual "Fall Fling", to be held at the Gull Lake Country's Club's Lakeview Room on Sunday, September 25th, from 6:00PM to 8:00PM.

Learn what the GLQO is doing – *as well as what you can do* – to protect water quality in the Gull Lake Watershed. The theme of this meeting will be 'Lakescaping', and Julia Kirkwood, Watershed Project Manager for the MDEQ, will be there to share her expertise and answer questions.

A taqueria / salad buffet and cash bar will be featured, and prizes from local businesses will be awarded throughout the evening.

Tickets at $40, and can be purchased at our website (glqo.net) or by calling or texting Sara Miller at (239) 398-9387.

Summer 2022

In This Issue:

The Gull Lake Quality Organization is an all-volunteer organization. Our mission is to address concerns and provide education regarding the use of natural resources of the Gull Lake Watershed.

The Many Benefits of Natural Shorelines

By Gary Mittelbach

Why 'go natural'? Many of the things that we love about lakefront living depend on natural shoreline vegetation. A more natural shoreline (including some woody debris at the water's edge) provides habitat for turtles, fish, birds and other wildlife and importantly helps reduce nutrient and herbicide runoff into the lake. Another big benefit of not mowing to the water's edge is that it makes your lawn less attractive to Canada Geese who like a clear line of sight to the water!

Continued on next page...

Example natural shoreline on Little Long Lake

- B


No Staff on Duty
YOU INSPECT
Clean? Drained? Dry?
YES
GO
FISH!
NO
GO
WASH!
CAUTION
HIGH
PRESSURE
HOT
WATER
SELF WASH
INSTRUCTIONS
THANK YOU!


NG? LEA
Gull Lake
Water

ALERT!

HARMFUL INVASIVE SPECIES

IN GULL LAKE

Zebra Mussels

Starry Stonewort

LEAVE THEM HERE!

DON'T take them with you to other lakes

DON'T bring any more into Gull Lake

PLEASE DO THIS

Drain your bilge water and live well

Clean off weeds and dry off your boat

Empty your bait in the trash

Aquatic Invasive Species Landing Blitz


Monitoring Water Quality
GLQO.net
JC

Michigan Clean Water Corps

MiCorps Fact Sheet

Secchi Disk Transparency

What do measurements with a Secchi Disk tell us about a lake?

What is transparency?

Transparency, sometimes referred to as water clarity, is a measure of how far light can travel in water.

What affects transparency?

Transparency is directly affected by the level of suspended particles and dissolved materials in the water.

The main types of suspended particles that affect transparency are algae and sediment. Algae are naturally occurring microscopic plant life found in most water bodies. Algae are a part of a healthy aquatic ecosystem, but their populations can increase dramatically when there are high nutrient inputs into a lake. Too much algae can block sunlight from penetrating deeper into the water, restricting plant growth and altering the balance of the ecosystem.

Suspended sediments can come from many sources. During storm events, high runoff can carry silt and sand from streets, yards, fields and construction sites into aquatic ecosystems. In shallow waters, boats and high winds can stir up bottom sediments. Also in shallow waters, aquatic life, such as carp and crayfish, can stir up the lake sediment. For some lakes, the formation of fine particles of calcium carbonate (marl) in the water is a major factor affecting transparency.

The Secchi disk is named after Pietro Angelo Secchi, who in 1865 used a white disk to take transparency measurements in the Mediterranean Sea (credit: MiCorps).

Dissolved materials in the water can potentially change the water's color (for example, in a "tea" colored lake), which can also affect the water transparency.

Why is transparency important?

Transparency is a basic indicator for the health of an aquatic ecosystem. When transparency is measured consistently week to week and year to year, these measurements are a useful indicator of water quality changes and patterns. When assessed along with other parameters such as chlorophyll *a* and total phosphorus, transparency measurements give us useful insight into the level of biological productivity in a lake, and ultimately its water quality conditions.

How is it measured?

Transparency is most commonly measured using a Secchi disk. This gives a direct measure of how deeply sunlight is penetrating through the water. The Secchi disk is a weighted steel or heavy plastic disk, eight inches in diameter, attached to a line with calibrated measurements.

In the Cooperative Lakes Monitoring Program (CLMP), volunteer monitors measure transparency by lowering the disk down into the water until it is no longer visible, noting the depth on the calibrated line, pulling the disk up until it is visible again, and noting the depth a second time. The Secchi disk transparency is the average of these two depths, rounded to the nearest half foot.

CLMP volunteers measure Secchi disk transparency regularly from mid-May through mid-September. Repeated measurements are necessary throughout the growing season since algal species composition in lakes can change significantly during the spring and summer months, dramatically affect overall water clarity.

Cooperative Lakes Monitoring Program

The CLMP is the lake monitoring program of the Michigan Clean Water Corps (MiCorps). MiCorps was created through Michigan Executive Order #2003-15 to assist the Department of Environment, Great Lakes, and Energy in collecting and sharing water quality data for use in water resources management and protection programs. For more information about the MiCorps program, please visit www.micorps.net.

RAIN GARDENS

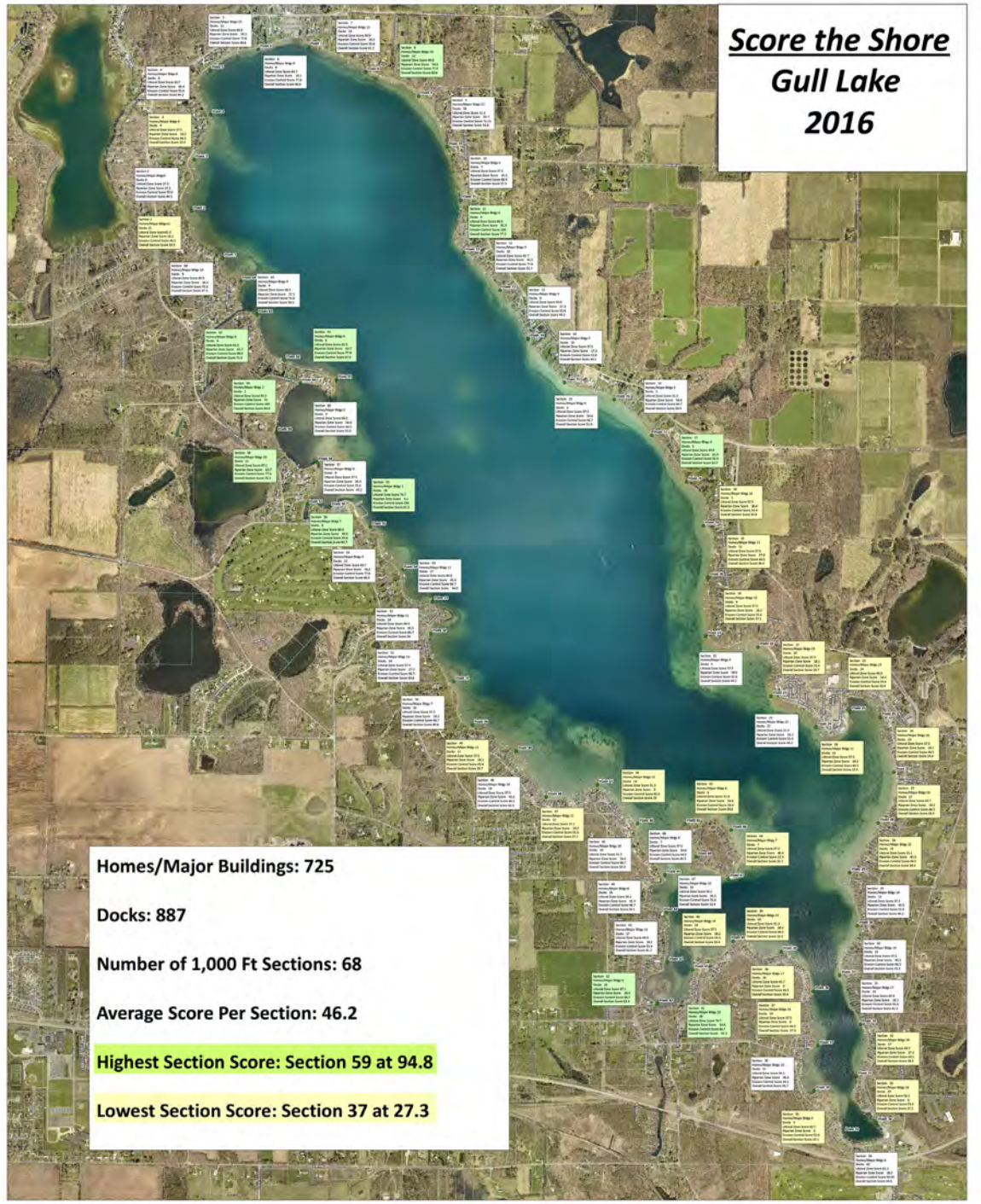

SHORELAND
STEWARD

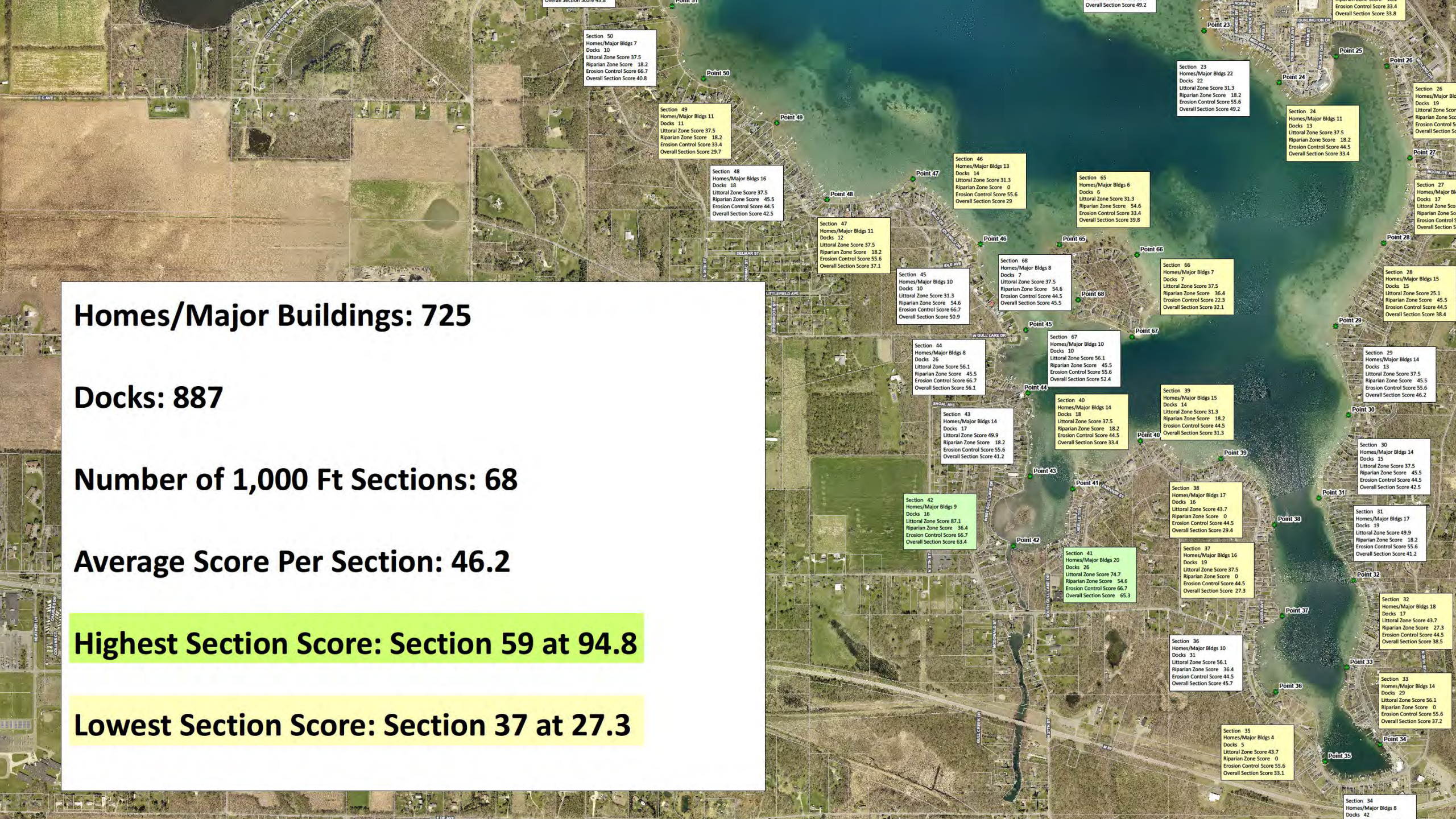
How to Score the Shore

Overall Score: ~32

SCORE THE SHORE

FUN COMPETITION

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Docks 10
Littoral Zone Score 37.5
Riparian Zone Score 18.2
Erosion Control Score 66.7
Overall Section Score 40.8
Point 50
Section 49
Homes/Major Bldgs 11
Docks 11
Littoral Zone Score 37.5
Riparian Zone Score 18.2
Erosion Control Score 33.4
Overall Section Score 29.7
Point 49
Section 48
Homes/Major Bldgs 16
Docks 18
Littoral Zone Score 37.5
Riparian Zone Score 45.5
Erosion Control Score 44.5
Overall Section Score 42.5
Point 48
Section 47
Homes/Major Bldgs 11
Docks 12
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Riparian Zone Score 18.2
Erosion Control Score 55.6
Overall Section Score 37.1
Point 47
Section 46
Homes/Major Bldgs 13
Docks 14
Littoral Zone Score 31.3
Riparian Zone Score 0
Erosion Control Score 55.6
Overall Section Score 29
Point 46
Section 45
Homes/Major Bldgs 10
Docks 10
Littoral Zone Score 31.3
Riparian Zone Score 54.6
Erosion Control Score 66.7
Overall Section Score 50.9
Point 45
Section 44
Homes/Major Bldgs 8
Docks 26
Littoral Zone Score 56.1
Riparian Zone Score 45.5
Erosion Control Score 66.7
Overall Section Score 56.1
Point 44
Section 43
Homes/Major Bldgs 14
Docks 17
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Riparian Zone Score 18.2
Erosion Control Score 55.6
Overall Section Score 41.2
Point 43
Section 42
Homes/Major Bldgs 9
Docks 16
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Riparian Zone Score 36.4
Erosion Control Score 66.7
Overall Section Score 63.4
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Homes/Major Bldgs 20
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Riparian Zone Score 18.2
Erosion Control Score 44.5
Overall Section Score 33.4
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Section 39
Homes/Major Bldgs 15
Docks 14
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Riparian Zone Score 18.2
Erosion Control Score 44.5
Overall Section Score 31.3
Point 39
Section 38
Homes/Major Bldgs 17
Docks 16
Littoral Zone Score 43.7
Riparian Zone Score 0
Erosion Control Score 44.5
Overall Section Score 29.4
Point 38
Section 37
Homes/Major Bldgs 16
Docks 19
Littoral Zone Score 37.5
Riparian Zone Score 0
Erosion Control Score 44.5
Overall Section Score 27.3
Point 37
Section 36
Homes/Major Bldgs 10
Docks 31
Littoral Zone Score 56.1
Riparian Zone Score 36.4
Erosion Control Score 44.5
Overall Section Score 45.7
Point 36
Section 35
Homes/Major Bldgs 4
Docks 5
Littoral Zone Score 43.7
Riparian Zone Score 0
Erosion Control Score 55.6
Overall Section Score 33.1
Point 35
Section 34
Homes/Major Bldgs 8
Docks 42
Point 34
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Docks 29
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Riparian Zone Score 0
Erosion Control Score 55.6
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Riparian Zone Score 27.3
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Docks 19
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Homes/Major Bldgs 19
Docks 19
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Riparian Zone Score 45.5
Erosion Control Score 44.5
Overall Section Score 46.2
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Section 24
Homes/Major Bldgs 11
Docks 13
Littoral Zone Score 37.5
Riparian Zone Score 18.2
Erosion Control Score 44.5
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Section 23
Homes/Major Bldgs 22
Docks 22
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Riparian Zone Score 18.2
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Point 23
Section 65
Homes/Major Bldgs 6
Docks 6
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Riparian Zone Score 54.6
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Homes/Major Bldgs 7
Docks 7
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Docks 10
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Erosion Control Score 55.6
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Docks 7
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Riparian Zone Score 54.6
Erosion Control Score 44.5
Overall Section Score 45.5
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Homes/Major Buildings: 725
Docks: 887
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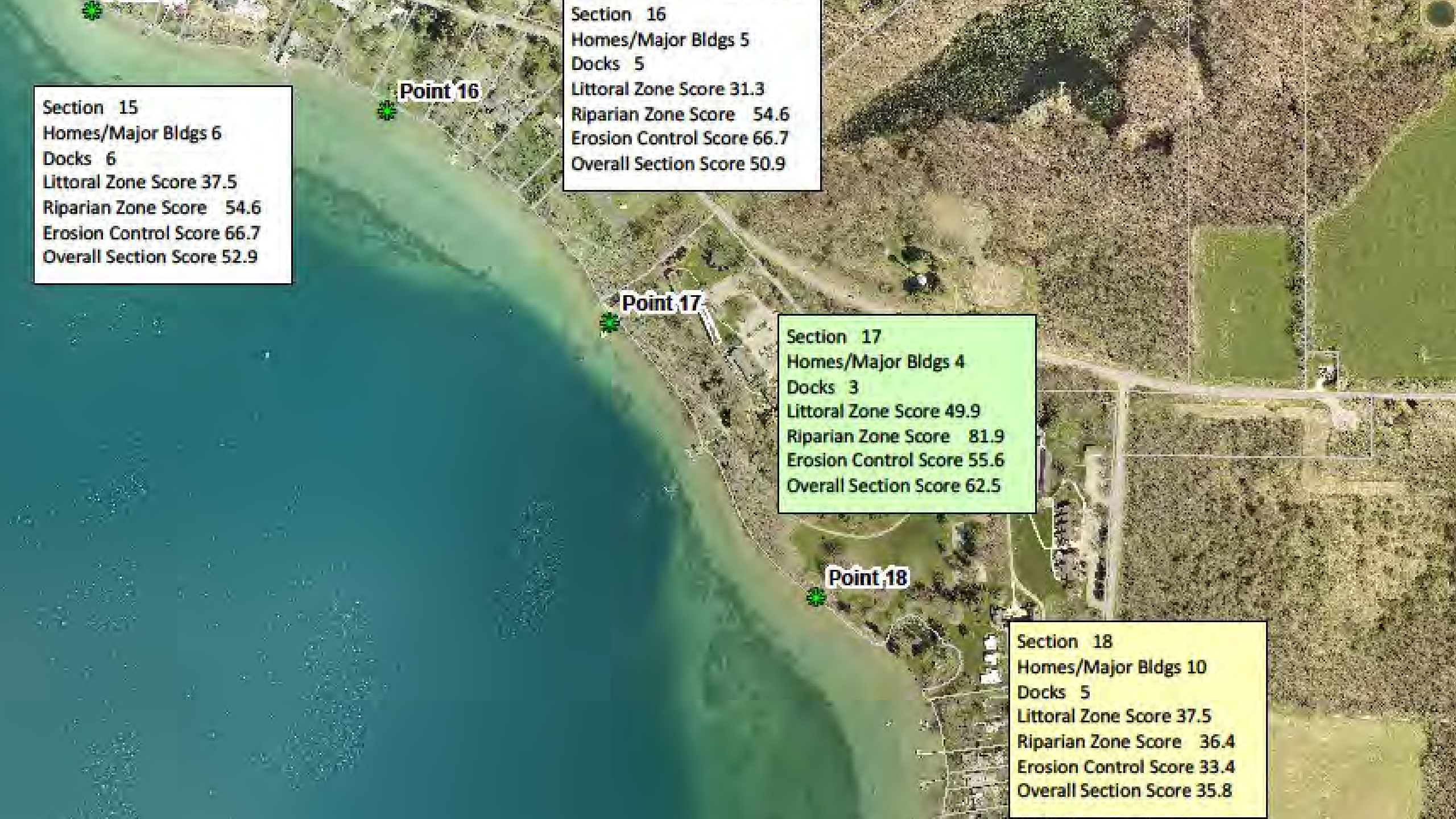
Highest Section Score: Section 59 at 94.8
Lowest Section Score: Section 37 at 27.3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Docks 5
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Riparian Zone Score 36.4
Erosion Control Score 33.4
Overall Section Score 35.8

Thanks for visiting.

Come again!

It’s time for questions and comments.