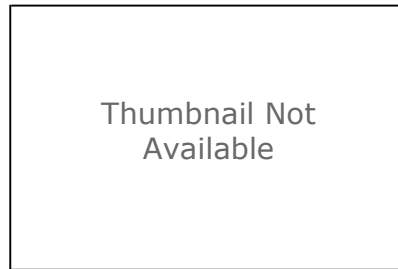


# Saginaw River and Bay AOC Boundary, U.S. EPA Great Lakes National Program Office

## Shapefile



## Tags

Michigan, Remediation, Environment, Great Lakes, Area of Concern, 020:057

## Summary

The main use of the delineated AOC boundaries is for EPA and State governments to locate those sites listed on the U.S. Area of Concerns list in the Great Lakes Water Quality Agreement, or other sites that are in close proximity or may have contributed to the pollution within each AOC. These analyses are completed on a relatively small scale of the areas in and around each AOC. Attributes only include the AOC name and the predominant state in which the AOC is located. The locations of features and boundaries shown on this map are approximate and are intended for planning and visualization purposes only. This is not intended for survey, statistical, engineering, or legal purposes.

## Description

This shapefile provides a polygon boundary for the Saginaw River and Bay AOC. In general, the following steps were taken in developing the shapefile:

1. The previous AOC shapefile was obtained from EPA.
2. Shoreline data from NOAA, called Continually Updated Shoreline Product (CUSP), was downloaded for the full extent of the AOC.
3. A narrative of the AOC was obtained from the AOC webpage (see narrative below).
4. The AOC shoreline (Saginaw River only) of the previous shapefile was updated using the data from Step #2. The Saginaw Bay portion was not revised as it matched current HUC 12 data from the National Hydrography Dataset Plus (NHDPlus) Version 2.1.
5. The extent of the AOC was determined from the narrative in Step #3 and/or the extent from the previous boundary and applied. Note: CUSP data were only available for the lower half of the Saginaw River.
6. Utilizing aerial imagery (current and historic) and best professional judgement, manual edits to the river shoreline (upper and lower) were made if significant deviations were apparent due to man-made changes or possible errors.

Narrative: EPA's AOC Webpage, 2/23/2022. "The Saginaw Bay area, located in the east central portion of Michigan's Lower Peninsula, is a southwestern extension of Lake Huron. The physical boundaries of the Saginaw River/Bay watershed AOC are defined as extending from the head of the Saginaw River at the confluence of the Shiawassee and Tittabawassee Rivers upstream of the city of Saginaw, to its mouth, and all of the Saginaw Bay out to its interface with open Lake Huron at an imaginary line drawn between Au Sable Point and Point Aux Barques. Areas outside these physical boundaries, but within the Saginaw Bay drainage basin, are included in the RAP if they are known or suspected sources of contaminants to the Saginaw River and/or Saginaw Bay."

Representatives of both EPA and EGLE reviewed and approved the boundary.

## Credits

Sources of digital information used in the development of the AOC include: NOAA (<https://www.ngs.noaa.gov/CUSP/>), ESRI World Imagery

([http://goto.arcgisonline.com/maps/World\\_Imagery](http://goto.arcgisonline.com/maps/World_Imagery)), Google Earth historic imagery (<https://www.google.com/earth/>), and EPA's NHDPlus Version 2.1 (<https://www.epa.gov/waterdata/get-nhdplus-national-hydrography-dataset-plus-data>).

Saginaw River and Bay EPA AOC Webpage: <https://www.epa.gov/great-lakes-aocs/saginaw-river-and-bay-aoc>

### Use limitations

Any hardcopies utilizing EPA data sets shall clearly indicate their source. The licensee specifically agrees not to misrepresent EPA data sets, nor to imply that changes they made were approved by EPA.

### Extent

**West** -83.970273    **East** -82.958679  
**North** 44.333054    **South** 43.384082

### Scale Range

**Maximum (zoomed in)** 1:5,000  
**Minimum (zoomed out)** 1:50,000

## ArcGIS Metadata ►

### Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE    inlandWaters, boundaries

\* CONTENT TYPE    Downloadable Data

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION    No

PLACE KEYWORDS    Michigan

THESAURUS'S LANGUAGE    English (UNITED STATES)

THESAURUS    ►

TITLE    EPA Place Names

PUBLICATION DATE    2015-01-31 00:00:00

RESOURCE LOCATION ONLINE

LOCATION

[https://ofmpub.epa.gov/sor\\_internet/registry/termreg/searchandretrieve/taxonomies/search.do?search=&searchString=&taxonomyName=WBT%20-%20Geographic%20Locations](https://ofmpub.epa.gov/sor_internet/registry/termreg/searchandretrieve/taxonomies/search.do?search=&searchString=&taxonomyName=WBT%20-%20Geographic%20Locations)

NAME    Web Taxonomy - Geographic Locations

FUNCTION PERFORMED    information

*Hide Thesaurus ▲*

THEME KEYWORDS    Remediation, Environment

THESAURUS    ►

TITLE    EPA GIS Keyword Thesaurus

PUBLICATION DATE    2007-11-02 00:00:00

RESOURCE LOCATION ONLINE

LOCATION    <https://www.epa.gov/geospatial/epa-metadata-technical-specification>

NAME    EPA Metadata Technical Specification

FUNCTION PERFORMED    information

[Hide Thesaurus ▲](#)

THEME KEYWORDS Great Lakes, Area of Concern

THESAURUS ►

TITLE User

PUBLICATION DATE 2020-06-29 00:00:00

[Hide Thesaurus ▲](#)

THEME KEYWORDS 020:057

THESAURUS ►

TITLE Federal Program Inventory

PUBLICATION DATE 2013-09-16 00:00:00

RESOURCE LOCATION ONLINE

LOCATION <https://www.performance.gov/federalprograminventory>

NAME Federal Program Inventory

FUNCTION PERFORMED information

[Hide Thesaurus ▲](#)[Hide Topics and Keywords ▲](#)**Citation ►**

TITLE Saginaw River and Bay AOC Boundary, U.S. EPA Great Lakes National Program Office

PUBLICATION DATE 2022-03-28

PRESENTATION FORMATS digital map

[Hide Citation ▲](#)**Resource Details ►**

DATASET LANGUAGES English (UNITED STATES)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

SPATIAL REPRESENTATION TYPE vector

\* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.7.0.10450

## CREDITS

Sources of digital information used in the development of the AOC include: NOAA (<https://www.ngs.noaa.gov/CUSP/>), ESRI World Imagery ([http://goto.arcgisonline.com/maps/World\\_Imagery](http://goto.arcgisonline.com/maps/World_Imagery)), Google Earth historic imagery (<https://www.google.com/earth/>), and EPA's NHDPlus Version 2.1 (<https://www.epa.gov/waterdata/get-nhdplus-national-hydrography-dataset-plus-data>).

Saginaw River and Bay EPA AOC Webpage: <https://www.epa.gov/great-lakes-aocs/saginaw-river-and-bay-aoc>

## ARCGIS ITEM PROPERTIES

\* NAME AOC\_MI\_Saginaw\_River\_Bay\_2022

\* SIZE 0.300

\* LOCATION file:///F5160-78SW8C3-L\C\$\Users\justin.telech\OneDrive - GDIT\Documents\Legacy\AOC boundary work\Saginaw

River\_Bay\Edits\Finalized\AOC\_MI\_Saginaw\_River\_Bay\_2022.shp

\* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

## Extents ►

### EXTENT

#### DESCRIPTION

The Saginaw River and Bay AOC was designated an AOC in 1987.

#### TEMPORAL EXTENT

BEGINNING DATE 1987-01-01 00:00:00

#### ENDING DATE

INDETERMINATE DATE unknown

### EXTENT

#### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -83.970273

\* EAST LONGITUDE -82.958679

\* NORTH LATITUDE 44.333054

\* SOUTH LATITUDE 43.384082

\* EXTENT CONTAINS THE RESOURCE Yes

#### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE -83.970273

\* EAST LONGITUDE -82.958679

\* SOUTH LATITUDE 43.384082

\* NORTH LATITUDE 44.333054

\* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

## Resource Points of Contact ►

### POINT OF CONTACT

INDIVIDUAL'S NAME Mark Loomis

ORGANIZATION'S NAME U.S. Environmental Protection Agency Great Lakes National Program Office

CONTACT'S POSITION Federal AOC Taskforce Lead

CONTACT'S ROLE publisher

#### CONTACT INFORMATION ►

##### ADDRESS

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CITY Chicago

ADMINISTRATIVE AREA IL

POSTAL CODE 60604

COUNTRY US

E-MAIL ADDRESS Loomis.Mark@Epa.gov

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

## Resource Maintenance ►

### RESOURCE MAINTENANCE

UPDATE FREQUENCY as needed

[Hide Resource Maintenance ▲](#)

## Resource Constraints ►

### CONSTRAINTS

#### LIMITATIONS OF USE

Any hardcopies utilizing EPA data sets shall clearly indicate their source. The licensee specifically agrees not to misrepresent EPA data sets, nor to imply that changes they made were approved by EPA.

[Hide Resource Constraints ▲](#)

## Spatial Reference ►

### ARCGIS COORDINATE SYSTEM

- \* TYPE Geographic
- \* GEOGRAPHIC COORDINATE REFERENCE GCS\_North\_American\_1983
- \* COORDINATE REFERENCE DETAILS

#### GEOGRAPHIC COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 4269  
 X ORIGIN -400  
 Y ORIGIN -400  
 XY SCALE 11258999068426.238  
 Z ORIGIN -100000  
 Z SCALE 10000  
 M ORIGIN -100000  
 M SCALE 10000  
 XY TOLERANCE 8.9831528411952133e-09  
 Z TOLERANCE 0.001  
 M TOLERANCE 0.001  
 HIGH PRECISION true  
 LEFT LONGITUDE -180  
 LATEST WELL-KNOWN IDENTIFIER 4269  
 WELL-KNOWN TEXT GEOGCS["GCS\_North\_American\_1983",DATUM  
 ["D\_North\_American\_1983",SPHEROID["GRS\_1980",6378137.0,298.257222101]],PRIMEM  
 ["Greenwich",0.0],UNIT["Degree",0.0174532925199433],AUTHORITY["EPSG",4269]]

### REFERENCE SYSTEM IDENTIFIER

DIMENSION horizontal  
 VALUE 4269  
 \* CODESPACE EPSG  
 \* VERSION 6.12(3.0.1)

[Hide Spatial Reference ▲](#)

## Spatial Data Properties ►

### VECTOR ►

- \* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

#### GEOMETRIC OBJECTS

FEATURE CLASS NAME AOC\_MI\_Saginaw\_River\_Bay\_2022  
 \* OBJECT TYPE composite  
 \* OBJECT COUNT 1

[Hide Vector ▲](#)

**ARCGIS FEATURE CLASS PROPERTIES** ▶

FEATURE CLASS NAME AOC\_MI\_Saginaw\_River\_Bay\_2022

- \* FEATURE TYPE Simple
- \* GEOMETRY TYPE Polygon
- \* HAS TOPOLOGY FALSE
- \* FEATURE COUNT 1
- \* SPATIAL INDEX TRUE
- \* LINEAR REFERENCING FALSE

*Hide ArcGIS Feature Class Properties* ▲*Hide Spatial Data Properties* ▲**Data Quality** ▶

SCOPE OF QUALITY INFORMATION ▶

RESOURCE LEVEL dataset

*Hide Scope of quality information* ▲*Hide Data Quality* ▲**Lineage** ▶

LINEAGE STATEMENT

This shapefile supersedes the previous version, AOC\_MI\_SAGINAW\_RIVER\_BAY.shp

*Hide Lineage* ▲**Distribution** ▶

DISTRIBUTION FORMAT

- \* NAME Shapefile
- VERSION 2022

TRANSFER OPTIONS

TRANSFER SIZE 0.012

*Hide Distribution* ▲**Fields** ▶

DETAILS FOR OBJECT AOC\_MI\_Saginaw\_River\_Bay\_2022 ▶

- \* TYPE Feature Class
- \* ROW COUNT 1

DEFINITION

The AOC extent and other possible applicable areas

DEFINITION SOURCE

U.S. EPA Great Lakes National Program Office

FIELD FID ▶

- \* ALIAS FID
- \* DATA TYPE OID
- \* WIDTH 4
- \* PRECISION 0

- \* SCALE 0
- \* FIELD DESCRIPTION  
Internal feature number.
- \* DESCRIPTION SOURCE  
Esri
- \* DESCRIPTION OF VALUES  
Sequential unique whole numbers that are automatically generated.

[Hide Field FID ▲](#)

#### FIELD Shape ►

- \* ALIAS Shape
- \* DATA TYPE Geometry
- \* WIDTH 0
- \* PRECISION 0
- \* SCALE 0
- \* FIELD DESCRIPTION  
Feature geometry.
- \* DESCRIPTION SOURCE  
Esri
- \* DESCRIPTION OF VALUES  
Coordinates defining the features.

[Hide Field Shape ▲](#)

#### FIELD Name ►

- \* ALIAS Name
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0
- \* SCALE 0
- FIELD DESCRIPTION  
Feature name
- DESCRIPTION SOURCE  
U.S. EPA Great Lakes National Program Office
- LIST OF VALUES  
VALUE AOC Name  
DESCRIPTION The AOC name is the official name given by the U.S. EPA Great Lakes National Program Office  
ENUMERATED DOMAIN VALUE DEFINITION SOURCE U.S. EPA Great Lakes National Program Office

[Hide Field Name ▲](#)

#### FIELD State ►

- \* ALIAS State
- \* DATA TYPE String
- \* WIDTH 2
- \* PRECISION 0
- \* SCALE 0

## FIELD DESCRIPTION

Location of feature as 2-character state code

## DESCRIPTION SOURCE

U.S. EPA Great Lakes National Program Office

## LIST OF VALUES

VALUE 2-character state code

DESCRIPTION State postal code

ENUMERATED DOMAIN VALUE DEFINITION SOURCE U.S. EPA Great Lakes National Program Office

[Hide Field State ▲](#)

[Hide Details for object AOC\\_MI\\_Saginaw\\_River\\_Bay\\_2022 ▲](#)

[Hide Fields ▲](#)

## Metadata Details ►

METADATA LANGUAGE English (UNITED STATES)

METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER E684F785-3782-4FA4-A450-74A262230F6D

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset

SCOPE NAME \* dataset

LAST UPDATE 2022-04-05

## ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

METADATA STYLE EPA Metadata Specification NAP ISO19115 2003

STANDARD OR PROFILE USED TO EDIT METADATA NAP

CREATED IN ARCGIS FOR THE ITEM 2022-04-04 18:46:07

LAST MODIFIED IN ARCGIS FOR THE ITEM 2022-04-05 90:60:30

## AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2022-04-04 18:47:03

[Hide Metadata Details ▲](#)

## Metadata Contacts ►

## METADATA CONTACT

INDIVIDUAL'S NAME Justin Telech

ORGANIZATION'S NAME GDIT

CONTACT'S POSITION Environmental Scientist

CONTACT'S ROLE author

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COUNTRY US



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[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

## **Metadata Maintenance ►**

MAINTENANCE

UPDATE FREQUENCY **as needed**

[Hide Metadata Maintenance ▲](#)

## **FGDC Metadata (read-only) ▼**