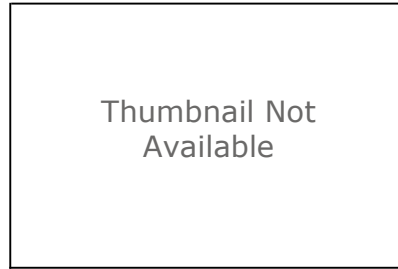


Torch Lake AOC Boundary, U.S. EPA Great Lakes National Program Office

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 Torch Lake AOC in the southwest portion of Michigan's upper peninsula. 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 State contact and/or taken from the AOC webpage (see narrative below).
4. The AOC shoreline (river and lake as applicable) of the previous shapefile was updated using the data from Step #2.
5. The extent of the AOC was determined from the narrative in Step #3 and/or the extent from the previous boundary and applied.
6. Utilizing aerial imagery (current and historic) and best professional judgement, manual edits to the shoreline were made if significant deviations were apparent due to man-made changes or possible errors.

Narrative: AOC Webpage, 6/29/2021. "The boundary of the Torch Lake AOC includes Torch Lake and its immediate environs. Immediate environs are areas along the shore of Torch Lake where waste from the production of copper contributed directly to the contaminant loadings of Torch Lake."

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), 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>).

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 -88.475921 **East** -88.392508
North 47.196641 **South** 47.126691

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

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 Torch Lake AOC Boundary, U.S. EPA Great Lakes National Program Office
PUBLICATION DATE 2021-07-07

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), 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>).

ARCGIS ITEM PROPERTIES

* NAME AOC_MI_TorchLake_2021
* SIZE 0.010
* LOCATION file://\F5160-78SW8C3-L\C\$\Users\justin.telech\OneDrive - GDIT\Documents\Legacy\AOC boundary work\Torch Lake\Edits\Finalized\AOC_MI_TorchLake_2021.shp
* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT

DESCRIPTION
The Torch Lake 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 -88.475921
 * EAST LONGITUDE -88.392508
 * NORTH LATITUDE 47.196641
 * SOUTH LATITUDE 47.126691
 * EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE -88.475921
 * EAST LONGITUDE -88.392508
 * SOUTH LATITUDE 47.126691
 * NORTH LATITUDE 47.196641
 * 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

DELIVERY POINT 77 W. Jackson Blvd G-17J
 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_TorchLake_2021**
- * OBJECT TYPE **composite**
- * OBJECT COUNT **1**

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

- FEATURE CLASS NAME **AOC_MI_TorchLake_2021**
- * 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_TORCHLAKE.shp

Hide Lineage ▲

Distribution ►

DISTRIBUTION FORMAT

* NAME **Shapefile**

VERSION **2021**

TRANSFER OPTIONS

TRANSFER SIZE **0.012**

Hide Distribution ▲

Fields ►

DETAILS FOR OBJECT **AOC_MI_TorchLake_2021** ►

* 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
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_TorchLake_2021 ▲](#)

[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 2021-07-21

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 2021-07-21 10:52:12
 LAST MODIFIED IN ARCGIS FOR THE ITEM 2021-07-21 11:47:28

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
 LAST UPDATE 2021-07-21 11:42:35

[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

CONTACT INFORMATION ►

ADDRESS

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 ADMINISTRATIVE AREA NC
 POSTAL CODE 27709
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 E-MAIL ADDRESS justin.telech@gdit.com

[Hide Contact information ▲](#)[Hide Metadata Contacts ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY as needed

[Hide Metadata Maintenance ▲](#)

FGDC Metadata (read-only) ▼