

GENERAL SITE INFORMATION, CHARACTERISTICS, AND STATUS

Project Name	<u>DEER LAKE</u>	ProjectID: 05-41
Last Updated:	01/29/02	
City:	Ishpening	
County:	Marquette	
State:	MI	
Country:	USA	
Bodies of Water:	Deer Lake; Carp River	
US EPA Region:	V	
Status (Active, Complete, or Monitoring Only):	Active	
Date On NPL:	N/A	
ROD/ESD Date:	N/A	
Operable Unit:	N/A	
Areas of Concern (length or acres):	All 906 acres of man-made Deer Lake and 20 miles of Carp River from Deer Lake to Lake Superior.	
Other Characteristics of Water Body:		
Contaminants of Concern:	mercury	
Source of Contamination:	Historical releases from a local gold mine and from a local mining laboratory that used mercury in iron ore assays. Additionally, mercury continues to enter the lake via air deposition.	
Contaminated Area Physical Characteristics:	Fish and sediment in Deer Lake reportedly have been found to contain the highest measurements of mercury in the State of Michigan. Mercury levels in sediment are as high as 16 ppm. Fish levels are as high as 1.5 ppm, typically in older fish.	
Type of Regulatory Action:	State initiative. State-lead.	
Overall Status Summary:	<p>Deer Lake is a 906-acre man-made lake located near Ishpening, Marquette County, Michigan, contaminated primarily by mercury and listed as one of the Great Lakes Areas of Concern (AOC). Sources of mercury to the lake were historical discharges and runoff from a local gold mine and from mining laboratories that used mercury for iron ore assays to extract gold from crushed ore. These discharges occurred over about 50 years. Additionally, mercury contamination from air deposition continues to enter the lake. Because of these discharges, fish and sediment in Deer Lake reportedly contain the highest levels of mercury contamination in Michigan. Mercury levels in sediment range from 2 to 16 ppm and a ban on the consumption of any fish taken from the lake currently exists. Reportedly, elevated levels of mercury in fish have also affected the reproduction of fish-eating birds living around the lake.</p> <p>In 1984, MDNR (now MDEQ) entered into a consent judgment with Cleveland Cliffs Iron (CCI) Company, which operated the laboratories responsible for much of the mercury discharges that contaminated the lake. In 1984, as part of the consent judgment, the lake was drawn down to its lowest possible level, killing most of the resident fish. In 1986, rotenone was applied as a piscicide to the remaining 90-acre natural lake to eliminate any remaining fish. The lake was allowed to refill in 1987. Subsequently, the lake was restocked with selected fish species in addition to allowing natural recovery of other fish species. Mercury levels in fish reportedly increased initially and then began to incrementally decrease until 1995. Since then, mercury levels in fish either have remained unchanged or have begun to slowly increase. Fish population levels are now considered to have fully recovered, although mercury levels remain above the Michigan Department of Public Health fish consumption advisory level of 0.5 ppm.</p>	

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For two weeks during Summer 2000, MDEQ and EPA collected approximately 200 surface sediment samples and 100 sediment core samples to further evaluate the extent of mercury contamination in lake sediments. The results of the sampling are intended to assist in determining what, if any, measures are necessary to decrease mercury levels in fish. MDEQ is using the results from the 300 sediment samples to prepare a Feasibility Study which is targeted for completion in Spring 2002.

Remedial Action Planned: ☐

Risk Assessment: ☐

Remedial Action Implemented: ☐

Status of Dredging ☐

PRPs: ☒

Contacts: ☒

References: ☒

Modeling: ☐

Fishing Advisory: ☒

Key Conditions: fish harvesting, Great Lakes AOC

POTENTIALLY RESPONSIBLE PARTIES

Project Name **DEER LAKE**

ProjectID: 05-41

PRP Name: PRP INFORMATION NOT RELEASED

PRPID:

Street Address:

City:

State:

KEY CONTACTS

Project Name **DEER LAKE**

ProjectID: 05-41

Last Name: KEY CONTACT INFORMATION NOT RELEASED

Contact ID:

First Name:

Title:

Company:

Address:

City:

State:

Postal Code:

Work Phone # :

Other Phone #:

Fax # :

Email Address:

REFERENCES

Project Name DEER LAKE

ProjectID: 05-41

Reference Type: B
Title: *Deer Lake Area of Concern*
Location: AEM
Category: Site Update
Prepared by/Author: US EPA
Preparer/Author Address: Great Lakes National Program Office
Chicago, IL
Prepared For: General Public
Date Published: July 6, 2000
Key Words and Phrases:

ReferenceID: 533

Reference Type: B
Title: *Press Release re: Deer Lake*
Location: AEM
Category: Site Update
Prepared by/Author: Michigan DEQ
Preparer/Author Address:
Prepared For: General Public
Date Published: July 18, 2000
Key Words and Phrases:

ReferenceID: 534

Reference Type: B
Title: *GLNPO Monthly Activity Report - Deer Lake, Michigan Sediment Survey*
Location: AEM
Category: Contaminated Sediments: Investigation/Delineation
Prepared by/Author: US EPA
Preparer/Author Address: Great Lakes National Program Office
Chicago, IL
Prepared For: Distribution
Date Published: August 2000
Key Words and Phrases:

ReferenceID: 639

REFERENCES

Project Name DEER LAKE

ProjectID: 05-41

Reference Type: B

ReferenceID: 640

Title: *Realizing Remediation II: An Updated Summary of Contaminated Sediment Remediation Activities at Great Lakes Areas of Concern: Deer Lake*

Location: AEM

Category: Dredging: Remedial (Contaminated Sediments)

Prepared by/Author: US EPA

Preparer/Author Address: Great Lakes National Program Office
Chicago, IL

Prepared For: Distribution

Date Published: July 2000

Key Words and Phrases:

Reference Type: B

ReferenceID: 963

Title: *e-mail re: Status of Deer Lake*

Location: AEM

Category: Site Update

Prepared by/Author: William Creal

Preparer/Author Address: MI DEQ
Surface Water Quality Division
Lansing, MI 48909

Prepared For: AEM, Inc.

Date Published: July 16, 2002

Key Words and Phrases:

Reference Type: L

ReferenceID: 163

Title: *Memo re: Torch Lake, Deer Lake, White Lake*

Location: AEM

Category: Site Update

Prepared by/Author: AEM, Inc.

Preparer/Author Address: Malvern, PA 19355

Prepared For: Distribution

Date Published: June 22, 2001

Key Words and Phrases:

FISH ADVISORIES

Project Name **DEER LAKE**

ProjectID: 05-41

Advisory: Carp River

AdvisoryID: 890

Extent: Upstream from Deer Lake (Marquette County)

Pollutant: mercury

Species: all fish except trout-brook

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 207

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: David R. Wade

Contact Number: 517-335-8834

Advisory: Carp River

AdvisoryID: 1114

Extent: Downstream from Deer Lake (Marquette County)

Pollutant: mercury

Species: pike-northern

Population: RGP

Population Definition: Restricted Consumption-General Population: Advises the general population to restrict the size of the organisms and/or the frequency of meals consumed.

Advisory Type: River

Advisory Number: 104590

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: David R. Wade

Contact Number: 517-335-8834

Advisory: Carp River

AdvisoryID: 1115

Extent: Downstream from Deer Lake (Marquette County)

Pollutant: mercury

Species: all other fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: River

Advisory Number: 104590

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: David R. Wade

Contact Number: 517-335-8834

FISH ADVISORIES

Project Name **DEER LAKE**

ProjectID: 05-41

Advisory: Carp River

AdvisoryID: 1116

Extent: Downstream from Deer Lake (Marquette County)

Pollutant: Not specified

Species: trout-brook

Population: NR

Population Definition: No Restriction

Advisory Type: River

Advisory Number: 104590

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: David R. Wade

Contact Number: 517-335-8834

Advisory: Deer Lake

AdvisoryID: 888

Extent: Marquette County

Pollutant: mercury

Species: all fish

Population: NCSP

Population Definition: No Consumption-Subpopulation(s): Advises against consumption for populations that are potentially at greater risk, e.g., pregnant or nursing women, and small children.

Advisory Type: Lake

Advisory Number: 206

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: David R. Wade

Contact Number: 517-335-8834

Advisory: Deer Lake

AdvisoryID: 889

Extent: Marquette County

Pollutant: mercury

Species: all fish

Population: NCGP

Population Definition: No Consumption-General Population: Advise against consumption by the general population.

Advisory Type: Lake

Advisory Number: 206

Status (Active or Rescinded): Active

Date Rescinded:

Contact Name: David R. Wade

Contact Number: 517-335-8834
