

# RESTORING WHITE LAKE

## EXPLORING WHITE LAKE'S ENVIRONMENTAL HISTORY



www.restoringwhitelake.com

WHITE LAKE ENVIRONMENTAL HISTORY PROJECT



The goal of the White Lake Environmental History Project is for residents and visitors of the area to learn about and understand the impact of White Lake's environmental history, including pollution issues and restoration efforts.

### The Early Days

- Native Americans inhabited the White Lake area
- 1700s – 1830s ... Fur trading
- 1837 ... First sawmill on White Lake established by Charles Mears
- 1837 – 1900 ... Logging practices, including the channelizing of the White River marsh, drastically changed the White River and White Lake by causing sedimentation and decreasing the capacity of the wetlands to reduce nutrient loads, absorb floods, and filter water
- 1860 ... Mears/Whitehall platted
- 1865 ... Eagle Tanning Works (Whitehall Leather Company) opens
- 1867 ... Montague platted
- Late 1800s/early 1900s ... End of logging era

### 1940s - 1950s

- 1940 ... Whitehall Leather Company stopped using bark for tanning and began using chromium
- 1951 ... Misco opens
- 1952/54 ... Hooker Chemical opens
- 1956 ... E.I. duPont de Nemours opens

### 1960s

- 1967 ... State of Michigan documents steep decline in benthos and high levels of sodium chlorides at Hooker Chemical discharge site
- 1968 ... Occidental Chemical (OxyChem) purchases Hooker Chemical

### 1970s

- 1974 ... Industrial and municipal discharges diverted from White Lake to county wastewater site
- 1975 ... Muskegon Chemical opens
- 1977 ... Groundwater contamination found at Muskegon Chemical
- 1977 ... OxyChem closes the Hooker Chemical/OxyChem fine chemicals plant

### 1980s

- 1980 ... Whitehall municipal well #3 discovered to be contaminated
- 1981/82 ... Hooker Chemical/OxyChem investigation and cleanup of soils
- 1982 ... Groundwater cleanup begun at Hooker Chemical/OxyChem
- 1982 ... Hooker Chemical/OxyChem closes
- 1985 ... White Lake named an Area of Concern
- 1986 ... Koch Chemical purchases Muskegon Chemical

### 1990s

- 1991 ... Muskegon Chemical/Koch Chemical closes
- 1992 ... White Lake Public Advisory Council (PAC) established
- 1992 ... E.I. duPont de Nemours conducts investigation of landfills on its site
- 1993 ... EPA orders Hooker Chemical/OxyChem to conduct second site investigation
- 1995 ... Whitehall Leather Company land site and Tannery Bay investigation begins
- 1995 ... 8 problems were officially determined for the White Lake Area of Concern
- 1996 ... Hooker Chemical/OxyChem production facilities demolished
- 1996 ... E.I. duPont de Nemours closes
- 1998 ... E.I. duPont de Nemours facility demolished
- 1999 ... White Lake Landfill closes

### 2000s

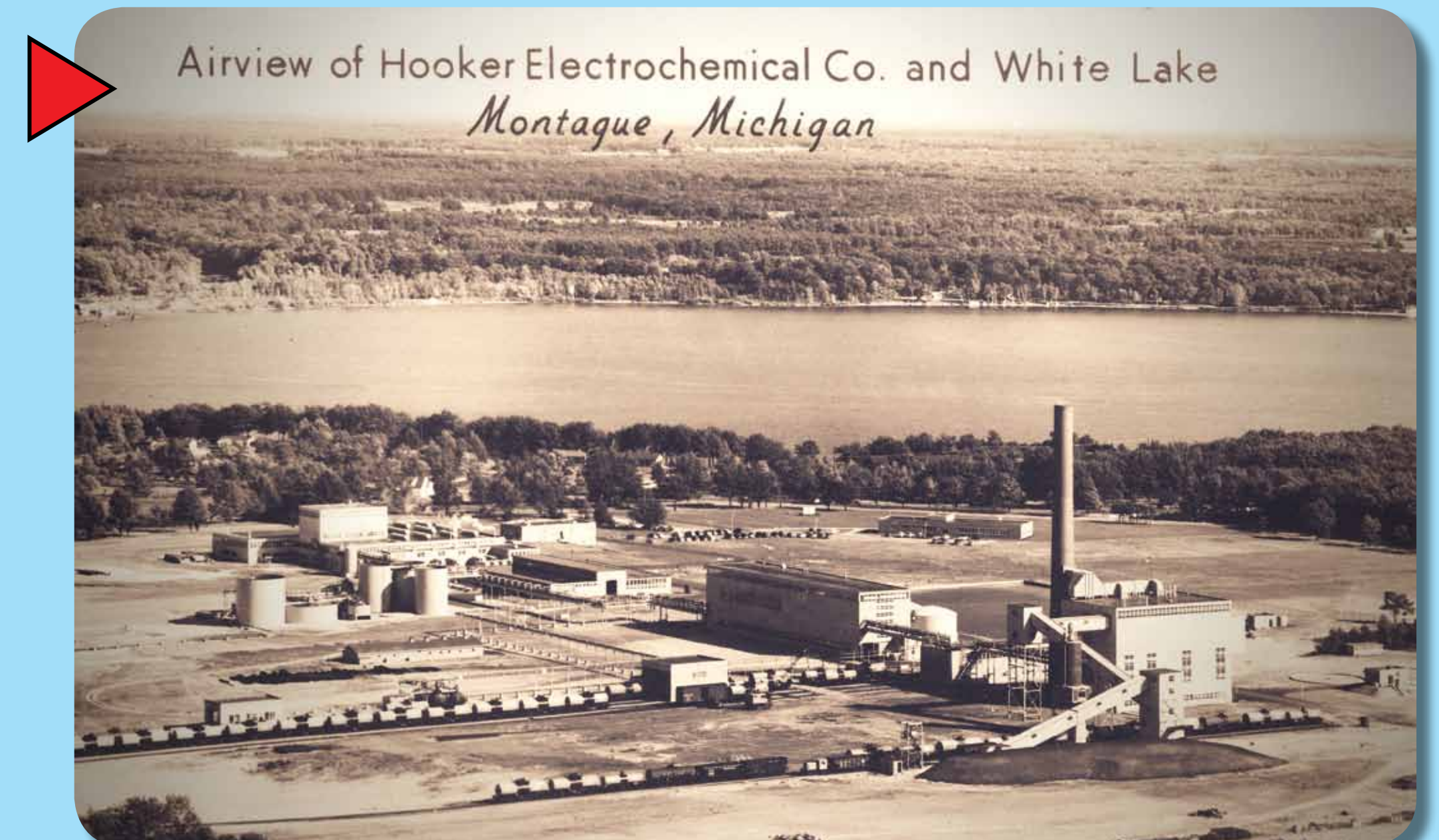
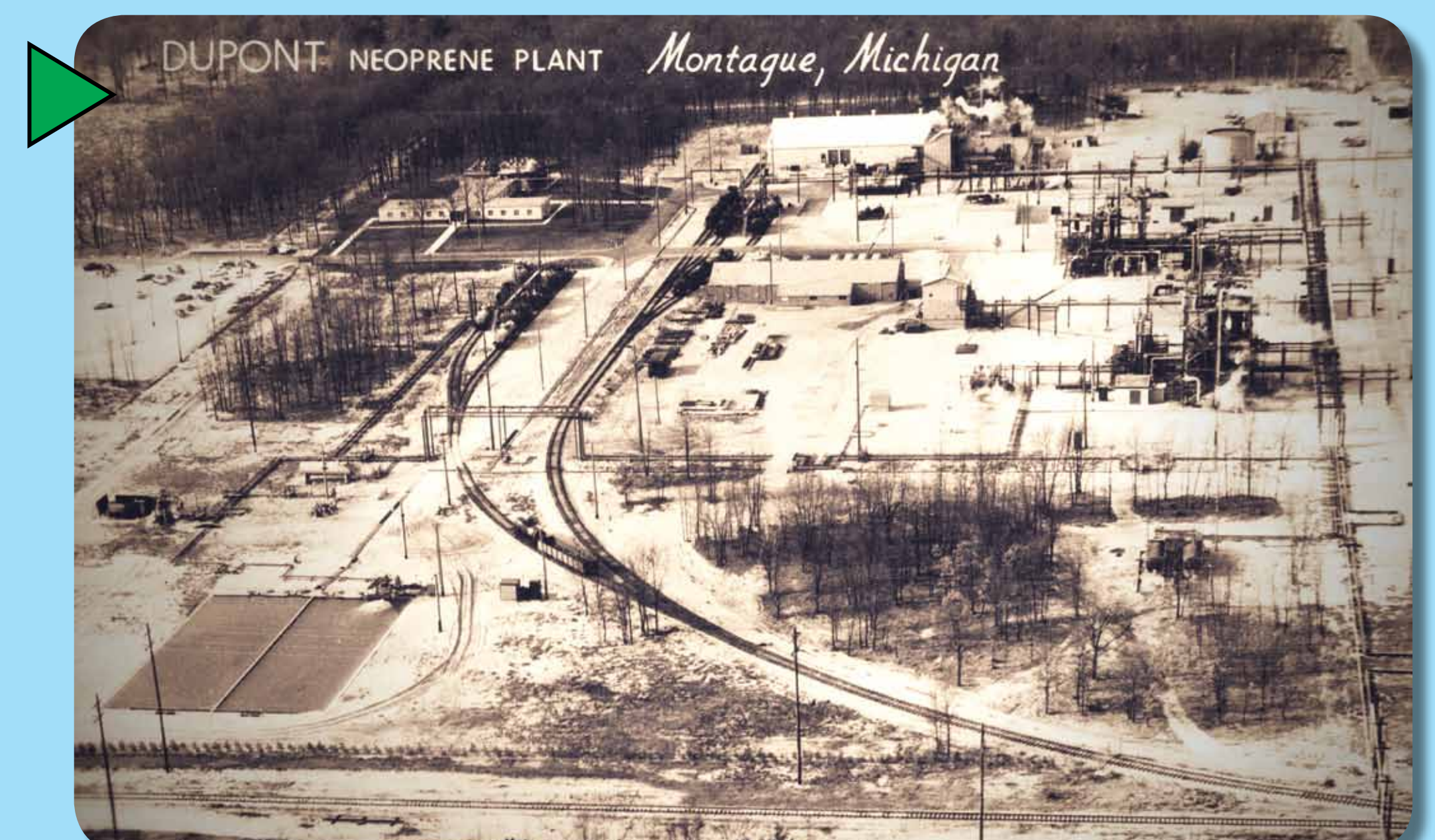
- 2000 ... Whitehall Leather Company closes
- 2002 ... Whitehall Leather Company removes contaminated sediments from Tannery Bay in White Lake
- 2003 ... Hooker Chemical/OxyChem removes contaminated sediments from White Lake

### 2010s

- 2010 ... E.I. duPont de Nemours site investigation begins
- 2010 ... Whitehall Leather Company land site cleanup begins
- 2011 ... Whitehall Leather Company land site cleanup completed
- 2011/2012 ... Habitat restoration project
- 2011/2012 ... 3 of 8 problems officially removed for the White Lake Area of Concern

### The Future

- Area of Concern delisting
- Citizens and businesses strive to be good environmental stewards



An industrial era, beginning in the 1950s, caused serious environmental problems in and around White Lake.

Pollution from this chemical manufacturing era and other problems caused White Lake to be placed on an international list of "toxic hotspots" called **Areas of Concern** in 1985. Please note that not every site of contamination is listed on this display.



Two of the problems identified for the White Lake Area of Concern were loss of fish and wildlife habitat and degraded fish and wildlife populations. A \$2.1 million project, funded by the federal Great Lakes Restoration Initiative, was led by the Muskegon Conservation District, in partnership with the White Lake Public Advisory Council in 2011/2012 to restore fish and wildlife habitat along White Lake's shoreline, address the two problems, and help to remove White Lake from the Great Lakes Area of Concern list.

**CONTAMINATED SITES**

- ▶ Muskegon Chemical/Koch Chemical
- ▶ E.I. duPont de Nemours
- ▶ Hooker Chemical/OxyChem
- ▶ Whitehall Leather Company
- 1 White Lake Landfill
- 2 Shellcast
- 3 Muskegon County Wastewater Management Site - Whitehall
- 4 Tech Cast/Anderson Road
- 5 Alcoa Howmet (formerly Misco)
- ▶ Whitehall Municipal Well #3
- 6 5-A Oil

Fortunately, a variety of public and private cleanup efforts have led to dramatic improvements in water quality of White Lake over the past three decades; efforts which now allow for all recreational uses to be safely enjoyed - boating, swimming, fishing.

The White Lake Environmental History Project was made possible by:



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