

FORMER ZEPHYR OIL REFINERY

GREAT LAKES LEGACY ACT

WETLAND SEDIMENT CLEANUP AND HABITAT RESTORATION

MUSKEGON, MICHIGAN



Funded by the U.S. Environmental Protection Agency Great Lakes National Program Office
and the Michigan Department of Environmental Quality

www.epa.gov/muskegon-lake-aoc

www.greatlakesmud.org

Contractor:



Engineer:



Subcontractors:



Contractor Project Team



- Infrastructure
 - Haul Roads
 - Process Pads
 - Cofferdam
 - Dewatering / Water Treatment
 - Shoring
 - Excavation
 - Stabilization
 - Transport & Disposal
 - Backfill
- Work Plans
 - Permitting
 - Air Monitoring
 - Soil / Sediment Sampling



- Restoration
- Plantings
- Maintenance



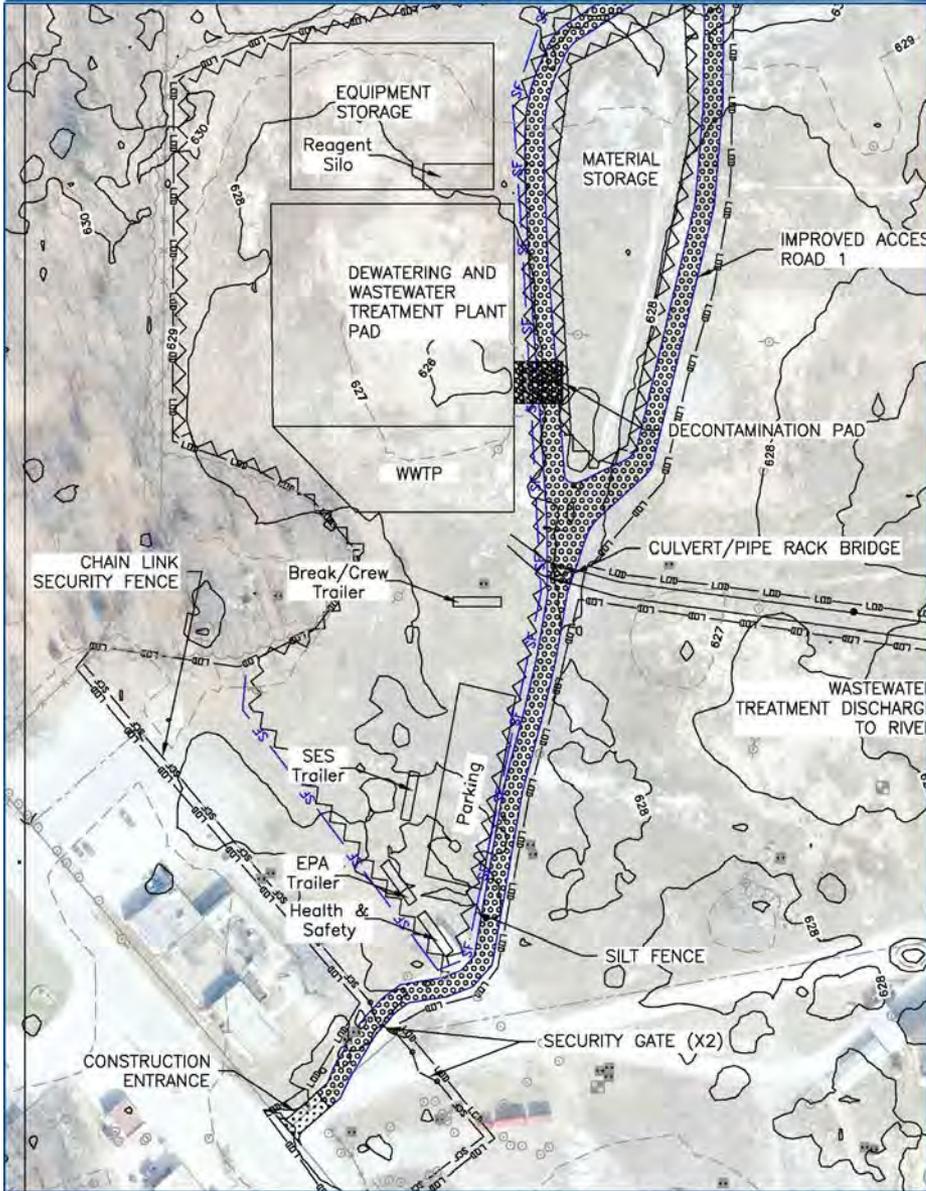
2017 Work Completed

(July – November)

- **Preconstruction Submittals**
- **Local Permits**
- **Survey**
- **Base Line Air Monitoring**
- **Haul Roads**
- **Process Pads**
- **Cofferdams**



Site Layout Plan



SES-Zephyr-07



Cofferdam Install

Steel Sheet Pile Segment



Earthen Berm Segment



2018 Work Schedule

(March – October)

- Install Temporary WWTS
- Dewater & Water Treatment
- Install Ditch Shoring
- Excavate Sediments
- Stabilize Sediment
- Load & Transport Sediment
- Backfill
- Restoration



Water Treatment



Steel Sheeting System



ZEPHYR AIR MONITORING



Highway 120

Wood Street

Downwind Air Monitoring Station 3

Upwind Air Monitoring Station 1

Downwind Air Monitoring Station 2

Downwind Air Monitoring Station 1



Sediment Excavation



Solidification / Stabilization



Load and Transport Sediment



ZEPHYR LANDFILL DISPOSAL TRUCK ROUTES

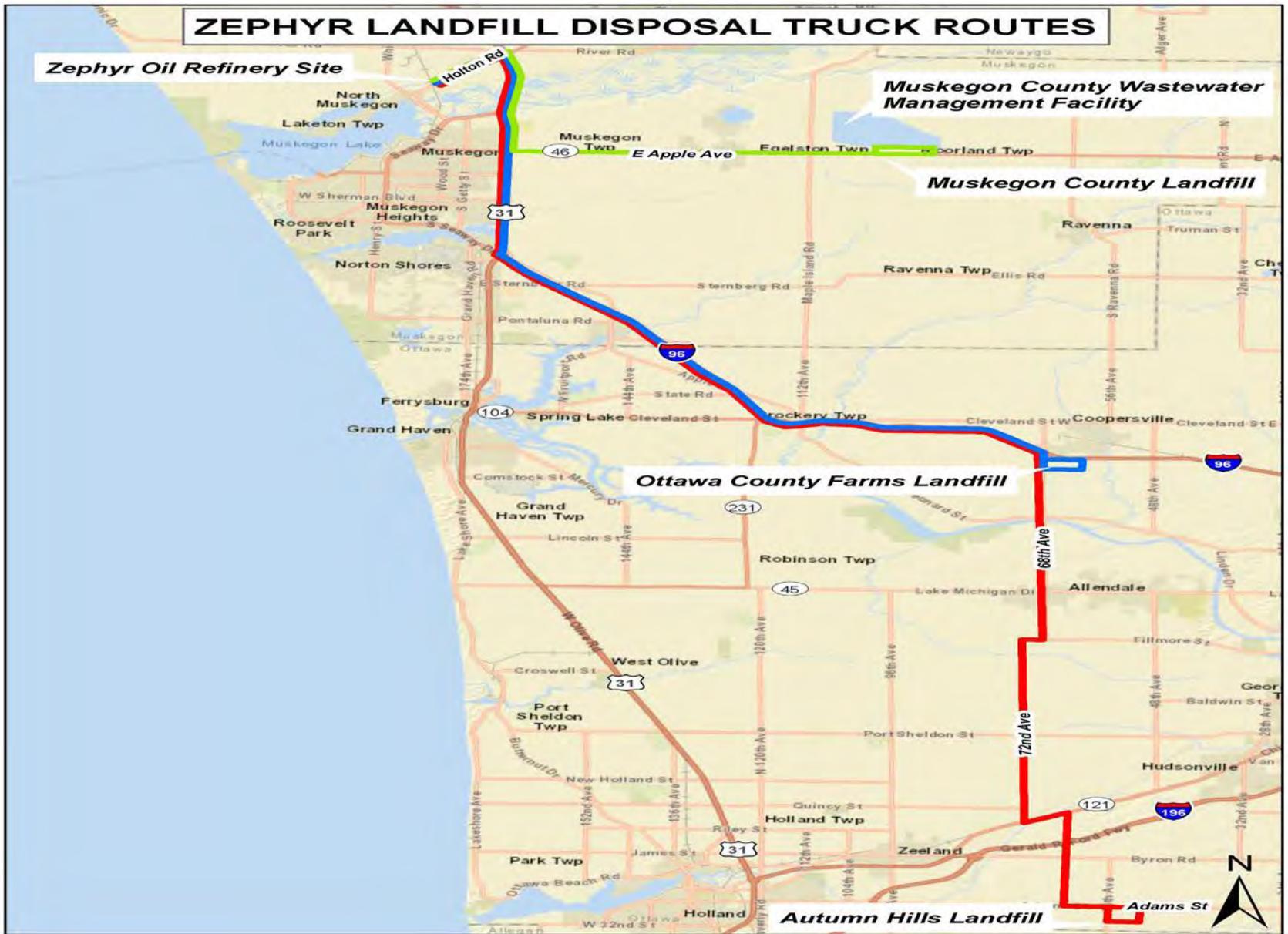
Zephyr Oil Refinery Site

Muskegon County Wastewater Management Facility

Muskegon County Landfill

Ottawa County Farms Landfill

Autumn Hills Landfill



Backfill



Restoration



ZEPHYR PROJECT HOTLINE

(231) 221-0299

March 15, 2018

